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Final Report

Advisory Committee on Human Radiation Experiments

Supplemental Volume 2

Final Report

ADVISORY COMMITTEE ON HUMAN RADIATION EXPERIMENTS

Supplemental Volume 2

Sources and Documentation

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An Internet site containing ACHRE information (replicating the Advisory Committee's original gopher) will be available at George Washington University. The site contains complete records of Advisory Committee actions as approved; complete descriptions of the primary research materials discovered and analyzed; complete descriptions of the print and non-print secondary resources used by the Advisory Committee; a copy of the Interim Report of October 21, 1994; a copy of the Executive Summary and Guide to Final Report; and other information. The address is http://www.seas.gwu.edu/nsarchive/radiation. The site will be maintained by the National Security Archive at GWU.

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ADVISORY COMMITTEE ON HUMAN RADIATION EXPERIMENTS
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October 1995

To the Members of the Human Radiation Interagency Working Group:

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Attorney General Janet Reno, Department of Justice
Secretary Donna Shalala, Department of Health and Human Services
Secretary Jesse Brown, Department of Veterans Affairs
Director Alice Rivlin, Office of Management and Budget
Director John Deutch, Central Intelligence Agency
Administrator Daniel Goldin, National Aeronautics and Space Administration

On behalf of the Advisory Committee on Human Radiation Experiments, it is my privilege to transmit to you our Final Report.

Since the Committee's first meeting in April 1994 we have been able to conduct an intensive inquiry into the history of government-sponsored human radiation experiments and intentional environmental releases of radiation that occurred between 1944 and 1974. We have studied the ethical standards of that time and of today and have developed a moral framework for evaluating these experiments. Finally, we have examined the extent to which current policies and practices appear to protect the rights and interests of today's human subjects. This report documents our findings and makes recommendations for your consideration.

The committee listened to the testimony of more than 200 public witnesses who appeared before us. We are deeply grateful to all these witnesses, who overcame the obstacles of geography and emotions to assist us.

Our work and this report would not have been possible without the extraordinary effort the President and you put forward to open the government's records to our inquiry and thus to the nation. We are especially pleased that, through our joint efforts, the American people now have access to the tens of thousands of documents that bear on this important history.

None of our conclusions came easily. We endeavored, both as individuals and as a committee, to live up to the responsibility with which we were entrusted. This report represents the consensus of fair-minded people who gave the best they had to offer to their fellow citizens.

We thank President Clinton for this opportunity and for his courage and leadership in appointing the Advisory Committee.

Ruth R. Faden
Chair, Advisory Committee
on Human Radiation Experiments

Printed with soy ink on recycled paper

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SUPPLEMENTAL VOLUME 2

SOURCES AND DOCUMENTATION

1

INTRODUCTION

The Advisory Committee on Human Radiation Experiments (ACHRE) was asked to evaluate information concerning (1) the federal government's role in sponsoring or conducting scientific and medical experiments using ionizing radiation involving human subjects, and (2) its role in sponsoring or conducting intentional releases of radioactive materials into the environment. As indicated in the Cabinet memorandum of January 19, 1994, and as reflected in the Advisory Committee's charter, the original expectation was that the agencies identified as members of the interagency working group would have the pertinent records and would find and submit documents to ACHRE for review and evaluation.

Once the search process began, however, it rapidly became obvious that too little was known, or remembered about what programs had existed, where they had been located, and who had been responsible, to know what to look for or to find relevant records easily. There was no consistency in the handling of records, and what records existed were at numerous repositories around the nation, often with only minimal documentation concerning their contents. Much information--including organizational histories and finding aids--was classified; many records had been destroyed or were not the property of the government. As a result, the search for records became by necessity a joint effort between the agencies and ACHRE.

The limited time allotted to this effort and the volume and complexity of the records have meant that the agencies and the Advisory Committee have not exhausted all the possibilities either for locating and examining records of interest or for evaluating and cross-referencing related records.

On the other hand, the Advisory Committee and the members of the Interagency Working Group (IAWG)--particularly the Department of Energy and the Department of Defense--have assembled an enormous record that documents the basic activities and issues of the history of government involvement in human radiation experiments and intentional releases. The records accumulated by the Advisory Committee in particular, as the only central collection with substantive documentation from the agencies and from outside the government, provide a rich source of information for the citizen and the scholar alike. This body of information will be held intact by the National Archives, including the printed and electronic finding aids, so that researchers can understand what the Advisory Committee discovered, including unpublished research.

Volume 2

This volume and its appendixes supplement the Advisory Committee's final report by reporting how we went about looking for information concerning human radiation experiments and intentional releases, a description of what we found and where we found it, and a finding aid for the information that we collected. This volume begins with an overview of federal records, including general descriptions of the types of records that have been useful and how the federal government handles these records. This is followed by an agency-by-agency account of the discovery process and descriptions of the records reviewed, together with instructions on how to obtain further information from those agencies. There is also a description of other sources of information that have been important, including institutional records, print resources, and nonprint media and interviews. The third part contains brief accounts of ACHRE's two major contemporary survey projects (these are described in greater detail in the final report and another supplemental volume) and other research activities. The final section describes how the ACHRE information collections were managed and the records that ACHRE created in the course of its work; this constitutes a general finding aid for the materials deposited with the National Archives. The appendices provide brief references to federal records reviewed, descriptions of the accessions that comprise the ACHRE Research Document Collection, and descriptions of the documents selected for individual treatment. Also included are an account of the documentation available for ACHRE meetings, brief abstracts of the almost 4,000 experiments individually described by ACHRE staff, a full bibliography of secondary sources used, and other information.

2

FEDERAL RECORDS OF HUMAN RADIATION EXPERIMENTS

Records of both the executive and legislative branches of the federal government contain a large amount of information on human radiation experiments and intentional releases.[1] For purposes of discussion here, *executive branch records* include such items as letters, memoranda, transcripts of communications or meetings, periodic and nonperiodic official histories, logs, studies, reports, publications, estimates, and photographs. *Legislative branch records* include hearings, reports, House and Senate documents, *Congressional Record*, committee and subcommittee files, and office files of individual members. The general record-keeping practices and procedures of the executive and legislative branches are discussed below.

EXECUTIVE BRANCH

There are four general categories of executive branch records, and each is subject to distinct record-keeping practices. The first category is the records of the President and White House staff and advisors. Although copies of much of the correspondence, memoranda, etc. of these individuals can be found in the files of various agencies and Congress, the complete collections of White House records can be found only in the appropriate presidential library. These libraries, at different locations around the nation, are administered by the National Archives and Records Administration (NARA), an independent federal agency.[2]

The second general category is the unclassified periodic and nonperiodic publications of the agencies.[3] These publications can take many forms, including annual reports to Congress by individual agencies or a report by an agency on a particular program or policy.[4] Copies of these publications are placed at numerous private and public libraries around the nation as part of an ongoing depository

program. They are listed in the *Guide to U.S. Government Publications*, a standard reference work available in most libraries.

A third general category is the research and development reports and studies done by both in-house laboratories and outside contractors and grantees for the Department of Defense (DOD) and other federal agencies since the 1940s. These items can be found in the various agency records, but there are also two central repositories for many--but by no means all--of them. First, studies done by or for DOD are placed in its Defense Technical Information Center (DTIC). This collection covers a wide range of subjects, including aeronautics, missile technology, space technology, navigation, electronics, explosives, chemistry, oceanography, mechanical engineering, computer sciences, sociology, nuclear science, medicine, and biology. Many of the holdings are classified, but there is still a vast amount of unclassified and declassified material. Only DOD and its contractors have direct access to DTIC. Second, unclassified and declassified reports and studies done for other federal agencies, as well as copies of unclassified and declassified DTIC holdings, are placed in the collections of the Department of Commerce's National Technical Information Service (NTIS). The public does have access to NTIS, whose indexes are available online. *U.S. Government Research Reports* (semiannual) and *Government Reports, Announcements, and Index* (annual), which are available in most libraries, list the individual reports and studies that have been prepared and accessioned to NTIS. These items can be ordered directly from NTIS or can be viewed at one of the limited number of repositories around the nation (e.g., the Library of Congress) to which NTIS sends copies of its holdings.

The fourth and final category of records consists of the many other types of records created by executive branch agencies. This last category of records is, without question, the largest and the most difficult to locate and use. Since the federal government was first created, the executive branch has generated literally billions of pages of records. All these documents, regardless of when they were created, have met one of six fates: (1) they have been transferred to the National Archives; (2) they have been transferred to a federal records center; (3) they are still with the agency or its successor; (4) they have been destroyed; (5) they have been lost; or (6) they have been removed by an official and either destroyed, lost, kept by the official, or placed in some repository. These six alternatives will be addressed in turn.

National Archives

The National Archives, a component of the National Archives and Records Administration, is charged with acquiring records from other government offices and assuming their custody, care, and control. More specifically, federal law provides that records are to be transferred to the National Archives when they have been determined to be of sufficient historical or other value to warrant preservation (i.e., they are permanent records) and they are 30 years old or, regardless of age, when the originating agency no longer needs to use the records in its regular current business and the agency's needs will be satisfied by access to the records at the National Archives.[5] As will be seen, few if any agencies have complied with these requirements.

Records of agency offices in the Washington, D.C., area are transferred to a National Archives facility in that area, while records of agency offices elsewhere are transferred to the appropriate National Archives regional facility.[6] There are, however, instances of this general rule not being followed. For

example, some military records are transferred not to regional facilities but instead to the National Archives in Washington, D.C.

The National Archives assumes both physical and legal custody and control of records transferred to it. However, the transferring agency often controls what categories of classified information National Archives personnel can and cannot review for declassification. For example, National Archives personnel have no authority to review "Restricted Data" information or information on intelligence sources and methods.

The records of a particular agency or the records of major organizational units are put in a separate collection. These collections are called *record groups* (RGs), and each receives its own descriptive title and number (the latter carries no significance other than being a shorthand method of referring to the collection). There are currently over 475 record groups, some containing tens of thousands of feet of records while others less than a hundred feet.[7] National Archives personnel break down and organize any record group into a series of *entries*. An individual entry often contains the records of a single division, department, bureau, or office, and large record groups usually have hundreds of entries. An individual entry can contain anything from less than one foot of records to many hundreds or thousands of feet of records.

National Archives personnel also customarily prepare a written *finding aid* for each record group that briefly describes all the entries.[8] There are limitations in the use of National Archives finding aids, however: first, not all record groups have finding aids; second, some finding aids are obsolete because entries have been rearranged or significant quantities of records have been added since their preparation; and third, descriptions of the contents or dates of the records can be erroneous. Unclassified and declassified records in the National Archives are available for public review at the National Archives, but a great number of documents remain classified and thus are not open to the public.[9]

Federal Records Centers

Federal records centers are another component of the National Archives and Records Administration, but their procedures and rules governing access to records are very different from those of the National Archives proper. There is no requirement that any agency send records to a federal records center: they exist solely to assist agencies in storing, servicing, and processing their records.[10] Records transferred to a federal records center are still under the legal custody and control of the transferring agency and, absent the permission of this agency or its successor, the records can only be disclosed to it. Records of agency offices in the Washington, D.C., area are transferred to the Washington National Records Center (WNRC) in Suitland, Maryland, while records of agency offices elsewhere are transferred to the appropriate regional center.[11] There are instances, however, of this general rule not being followed; for example, some military records are transferred to the WNRC instead of appropriate regional federal records center.

Records transferred to a federal records center are supposed to be placed in the same record group as that holding the agency's records at the National Archives. However, the record groups at federal records centers are not organized or broken down into entries, nor are finding aids prepared for them, nor are archivists available to assist the public. A record group at a federal records center is simply divided into the various shipments of records, or *accessions*, transferred to it by the agency. Some record groups contain thousands of separate accessions, others very few, and an individual accession can be one box of

records or many hundreds of boxes. Every accession is numbered, and the federal records center and agency personnel use this number for many purposes, including tracking where an accession is stored and recording the ultimate disposition of all or part of it (i.e., returned to the agency, destroyed pursuant to agency instructions, or transferred to the National Archives).[12]

When an agency ships records to a federal record center, the accession must be accompanied by a Records Transmittal and Receipt form, known as a *Standard Form 135 (SF-135).* SF-135s provide a great deal of information, including the accession number, name and address of the office shipping the records, point of contact, classification of the records, quantity of records in cubic feet, etc. SF-135s also describe the records and are supposed to include a complete list of folders for most types of records, but compliance with this has varied.[13] Some contain only a one- or two-sentence description, making it exceedingly difficult to determine exactly what records are in the accession. A federal records center will keep all the SF-135s for a record group together and except for the very rare classified one will make them available for examination by the public.[14] It is only by reviewing these forms that one can determine the contents of a particular accession or record group. This is normally a very tedious and time-consuming task as the SF-135s for one record group can total many tens of thousands of pages.

If a member of the public identifies records of interest at a federal records center, there is no easy method of examining them. First, for various reasons, the percentage of classified records is much higher at federal records centers than at the National Archives. Second, even if the individual file, box, or collection is unclassified or declassified, permission must still be obtained from the agency before examining them, and this can be a difficult and time-consuming process.

Records Still at the Agencies

An agency's records may still be at the agency or its successor--in individual offices, internal records storage facilities, declassification offices, historians' offices, or even public reading rooms. For the most part, records are not well inventoried or indexed. Agencies often do not know what records they have, and this too can pose a massive problem in conducting research. There are two exceptions to this. First, some agencies with their own storage facilities often require folder listings for the records that are transferred to those facilities. Second, periodic and nonperiodic histories prepared by agency historians are generally kept in a single location and are easily retrievable.

Records Destroyed or Lost

Records generated by agencies may also have been destroyed or lost. All agencies have *records retention and disposition schedules* that provide guidelines for what records must be retained, and for how long, and what records may be destroyed and when. Almost without exception, however, agencies do not keep permanent records of what records have been destroyed, or of what records have been lost. This lack of accounting for destroyed or lost records can create substantial problems in performing research.

Records Removed by Officials

Lastly, agency records have on occasion been removed by officials, and there is generally no accounting of what records have been removed. Records removed by an official may have been destroyed, lost, kept in the personal possession of the official, or deposited in a repository (e.g., the Library of Congress or a university library). An excellent guide to collections of personal papers at private and public repositories is the *National Union Catalog of Manuscript Collections,* which is available in most libraries.

Legislative Branch

Records of the legislative branch are handled quite differently from those of the executive branch. Copies of hearings, reports, House and Senate documents, and the *Congressional Record* are available in hundreds of public and private libraries around the nation. Records of House committees are placed in RG 233 at the National Archives, but they are closed to the public for 30 years.[15] Records of Senate committees are placed in RG 46 at the National Archives, but they are closed to the public for 20 years.[16] Lastly, records of joint committees are placed in RG 128 at the National Archives and are closed to the public for 20 years.[17] If any of these records is classified, they are not available for public examination until declassified. Publications on the legislative branch records at the National Archives are *Guide to the Records of the U.S. House of Representatives at the National Archives* and *Guide to the Records of the U.S. Senate at the National Archives.*

Records generated by the office of an individual member of Congress are either retained by that office or stored at WNRC, and they are not open to the public. Once a member leaves Congress, such records may be disposed of as the member wishes. They are often placed in a private or public library in the member's state. Publications on the location of records of individual members are U.S. House of Representatives, *A Guide to Research Collections of Former Members of the United States House of Representatives, 1789-1987* (Washington, D.C., 1988), and U.S. Senate Historical Office, *Guide to Research Collections of Former U.S. Senators, 1789-1982* (Washington, D.C., 1983).

AGENCY RECORDS

Agency personnel and Advisory Committee staff examined a huge number of records at numerous repositories in an effort to develop the story on human radiation experimentation and intentional releases.[18] This section will describe in detail what collections were located and reviewed, and what collections were either located and not reviewed or not located at all. Additionally, a brief organizational history of each agency and its key components will be given.

Department of Energy

History

The Department of Energy (DOE) is the successor to the Manhattan Engineer District (MED), Atomic Energy Commission (AEC), and Energy Research and Development Administration (ERDA).[19]

MED was established within the Army in 1942 to build the atomic bomb. Some biomedical research was conducted at individual project sites from the first days of the MED, and in August 1943 the Medical Section was created partly to coordinate such research. The Medical Section was headed by Col. Stafford Warren and was located at the Clinton Laboratories in Oak Ridge, Tennessee. All the work of MED, including biomedical research, was done at government-owned, contractor-operated laboratories or by contractors. The former included certain facilities of the Metallurgical Laboratory (Met Lab) operated by the University of Chicago, which became the Argonne National Laboratory in 1946; Hanford, initially constructed and operated by E. I. du Pont, with General Electric taking over the operation in 1946; Los Alamos, operated by the University of California; and the Clinton Laboratories, initially operated by the University of Chicago and then by Monsanto Chemical. Among the contractors were the University of Rochester, University of California Radiation Laboratory, Columbia University, Iowa State University, and the University of Washington.

MED established a series of Area Engineer Offices around the nation to conduct day-to-day liaison with the laboratories and contractors. It also established the Medical Advisory Committee in mid-1946 to advise the MED on a number of issues, including future biomedical research programs; this committee issued a report in late 1946.[20] Beginning in 1946, MED started to distribute radioisotopes produced at Clinton Laboratories to researchers outside of its own laboratories and contractors. The Interim Advisory Committee on Isotope Distribution was set up to advise MED on policies and guidelines in this area, including the use of radioisotopes in humans.[21]

The Atomic Energy Act of 1946 established the AEC as an independent agency run by a five-member commission, all of whom were civilians appointed by the President and subject to Senate confirmation. Pursuant to the Act, the General Advisory Committee (GAC) was established to advise the commission on a wide range of issues, including research and development (R&D) priorities. GAC members were all civilians from outside the government, and the committee met several times a year.[22] The Act also established a new congressional oversight committee, the Joint Committee on Atomic Energy (JCAE), to which the AEC was required to submit periodic reports on its programs and problems.

Numerous AEC headquarters offices and divisions were of interest to the Advisory Committee. The first was the Office of the General Manager, whose duties included the carrying out of the policies and procedures adopted by the commission. The second was the Office of General Counsel (OGC), whose duties included advising on the legal issues and problems facing the AEC. The third was the Division of Intelligence which, with other federal agencies, had responsibilities in the area of foreign atomic energy intelligence. A fourth was the Division of Military Application (DMA), which had major responsibilities involving the military use of atomic energy. During the late 1940s, and possibly later, DMA had a Radiological Branch that worked extensively in the radiological warfare field.[23] At least in the years 1949-1950, DMA jointly funded with the AEC's Division of Biology and Medicine (see below) biomedical research conducted at the University of Chicago's Toxicity Laboratory.[24] DMA also funded some biomedical research in the 1950s concerning fallout and may have funded other biomedical research as well.[25]

The fifth was the Office of Comptroller. Under this office was the Insurance Branch, which in the late 1940s was intimately involved in the decisions not to declassify certain information on biomedical research work which utilized human subjects. The sixth was the Division of Biology and Medicine (DBM) established in early 1948. Early in 1947, the Interim Medical Advisory Committee (IMAC) was set up to advise the AEC on its biomedical research effort, and pursuant to its

recommendations most of the existing programs and contracts simply were continued.[26] The Medical Board of Review, a successor to IMAC created in mid-1947, recommended in its July 1947 report that AEC establish a division specifically responsible for biomedical research and a permanent advisory group of physicians from outside the government to assist that division.[27] Based on these recommendations, the Advisory Committee for Biology and Medicine (ACBM) was formed in September 1947 and DBM early the following year.[28] A seventh office of interest was the Isotopes Branch and its successors, which oversaw the isotope production and distribution program. To assist it, the Advisory Committee on Isotope Distribution was established in 1948 to replace the interim committee of the same name, and the Subcommittee on Human Applications was formed under it to set guidelines and policies governing the use of AEC-supplied radioisotopes in humans.[29] In 1958, the Advisory Committee on Medical Uses of Isotopes succeeded the Subcommittee on Human Applications.[30]

Under the AEC, the system of Government-owned, contractor-operated laboratories was expanded and some of the existing ones renamed. In January 1948, shortly after Union Carbide and Carbon replaced Monsanto Chemical as the operator, Clinton Laboratories was redesignated Oak Ridge National Laboratory. The Oak Ridge Institute of Nuclear Studies (ORINS), run by the University of Tennessee and a consortium of southeastern universities since its establishment in late 1946, assumed responsibilities in the biomedical research field beginning in 1948. ORINS was renamed the Oak Ridge Associated Universities (ORAU) in 1966, and then the Oak Ridge Institute of Science and Education (ORISE) in the early 1990s. Brookhaven National Laboratory, constructed in 1947, was operated by a consortium of universities known as Associated Universities, Inc. Beginning in 1949, the first in a series of mainly nuclear reactor proving grounds was built in Idaho, which ultimately became to be known as the Idaho National Engineering Laboratory. In 1952, the Livermore National Laboratory was established as a second weapons laboratory. It was part of the University of California Radiation Laboratory until 1971, when it became an independent laboratory and was renamed the Lawrence Livermore National Laboratory. The University of California, however, continued to operate it. The MED Area Engineer Offices were redesignated Operations Offices, and through the years several new ones were established. ERDA replaced the AEC in 1974, when the isotope production and distribution and civilian nuclear power functions were transferred to the newly-created Nuclear Regulatory Commission (NRC). Many divisions and offices were renamed, including DBM which became the Biology and Environmental Research Division. ERDA was in turn succeeded by DOE in 1977. The DOE search process was coordinated through the specially-created Office of Human Radiation Experiments (OHRE).[31]

MED Headquarters Records Reviewed

No one repository holds all or even most of the headquarters records that still exist; known records are at many locations and are in many collections. There is a small amount (less than 100 cubic feet) of partially declassified headquarters records in RG 77 at the College Park National Archives, and selected files were examined by DOE and Advisory Committee staff. Most of the records in this collection are files from the Washington, D.C., MED offices (e.g., it contains numerous personal files of Gen. Leslie Groves, the head of the MED). There is very little on the MED biomedical research program. The official histories of the MED written in the 1940s total many volumes and were all initially classified. The declassified volumes are on microfilm in RG 374 at the College Park National Archives, and portions

of these records concerning the MED biomedical research program and the Medical Advisory Committee's report in late 1946 were reviewed by Advisory Committee staff.

DOE's Oak Ridge Operations Office (ORO) has a large volume of records, including some MED headquarters records.[32] Despite recent efforts to segregate the still-classified materials from those that are unclassified and declassified, classified records have been located among the nonclassified materials; as a result, all records are treated as if they were classified. There are no distinct collections of MED headquarters records, which can be found intermingled with other types of records, and with one exception there are no finding aids or inventories to these records. As part of its effort to determine what ORO holds and what should be examined, DOE reviewed the holdings and identified numerous collections.[33] Among these collections were the AEC Manager's Meeting Files (1957-1965), Contract Division Insurance Files (1948-1965), Chief Counsel Office Subject Files (1949-1987), Finance Division Files (1944-1986), Oak Ridge Contract Files (1943-1978), Oak Ridge Manager's Files (1951-1953), Periodic Progress Reports (1948-1973), Research and Development Division Files (1943-1957 and 1962-1967), and Research and Medicine Division Files (1944-1948).

An artificial collection, the Records Holding Task Group (RHTG) files, was created over many years to hold classified materials removed from other records collections. These files, totalling approximately 300 cubic feet, were arranged without regard to date, subject matter, or original source. However, an electronic index, which is itself classified, lists certain information on each individual document in the RHTG files. Advisory Committee staff reviewed the index by date (from 1942 through 1947), by name, and by subject, and selected a number of documents for review and retrieval. Staff also reviewed boxes from which ORO staff had identified relevant documents. In addition to the RHTG files, the relevant files in the following collections were sampled by Advisory Committee staff: Chief Counsel Office, Research and Medicine Division, Research and Development Division, and the Joseph A. Lenhard reading files.

Over the years, ORO has transferred over 2,500 cubic feet of records to RG 326 at the regional National Archives in Atlanta, some of which are MED headquarters records.[34] However, the Atlanta National Archives and adjoining federal records center have no facilities for storing classified records. Before the collections were transferred, all the classified documents, accordingly, were removed or, in some instances, reviewed for declassification. In either event, the still-classified materials have been retained by ORO, presumably in the RHTG files.[35] In July 1994, DOE and Advisory Committee staff jointly examined all or part of several of the collections in Atlanta, including the 1942-1947 MED Central Files, 1944-1962 Research Division Correspondence Files, 1947-1963 Research and Development Division Correspondence Files, and the 1944-1950 Research and Medicine Correspondence Files.

AEC Headquarters Records Reviewed

A small volume of these records have been transferred to RG 326, now at the College Park National Archives, as well as to RG 326, 430, and 434 at WNRC.[36] The vast majority of AEC headquarters records, however, are still retained by DOE headquarters offices. Because of their vast size and critical importance, DOE and Advisory Committee staff agreed in 1994 to split their review.

Advisory Committee for Biology and Medicine

Summary minutes of nearly all of the ACBM meetings from 1947 to 1974 are in the custody of DOE's History Division and were provided by DOE. For some time it was believed verbatim minutes were never prepared, but Advisory Committee staff discovered such minutes for a small number of meetings when reviewing the DBM Fallout Files in RG 326 at the College Park National Archives. Additionally, Advisory Committee staff located a limited number of verbatim minutes in 1995 at the History Division. It is not known whether verbatim minutes were prepared for the balance of the meetings and, if so, where they are located.

Division of Biology and Medicine

The only DBM records at the National Archives are the small number of DBM Fallout Files from 1947-1973 in RG 326 at College Park, consisting of correspondence, studies, reports, etc. With few exceptions, all the files are classified. Advisory Committee staff examined selected unclassified, declassified, and classified files.

The DOE History Division also retains the 1947-1974 Central Correspondence Files and 1956-1975 Central Correspondence Files collections. These total approximately 100 cubic feet. Both are classified, although over the years some unclassified and declassified documents have been placed at the History Division and been made available for public review. Advisory Committee staff examined all the unclassified, declassified, and still-classified portions of these collections.[37]

With the exception of one small classified collection of 1945-1962 Radiation Exposure Files, there are a limited number of entirely unclassified collections and accessions of DBM and BER records at other DOE headquarters offices and in RG 326 at WNRC, respectively. For the most part, the files are R&D project or case files from the 1960s on. Through the years, some of these files in RG 326 at WNRC have been destroyed pursuant to DOE records retention and disposition schedules. Advisory Committee staff reviewed selected portions of the remaining collections.

None of the above collections are complete. In short, there are significant gaps in the known DBM records, and large numbers have presumably been destroyed or lost over the years.

Commission Minutes

RG 326 at the College Park National Archives has the summary minutes for all commission meetings held from 1947-1961. Only the 1947 and 1949 minutes are declassified in their entirety and available for public review. Additionally, RG 326 contains the still-classified verbatim minutes of regular commission meetings, executive session meetings, and informal meetings for the years 1954-1957. These appear to be the only verbatim minutes ever prepared. Advisory Committee staff reviewed the summary minutes from 1947-1961. The verbatim minutes were not reviewed. The History Division has the summary minutes of the 1962-1974 meetings, all of which are classified. These minutes were not reviewed.

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Division of Intelligence

Despite an exhaustive search by DOE, including interviewing several retired staff members, no records of this office were ever located. The available evidence indicates that most or all of the records were destroyed during the 1970s.

Division of Military Application

There are no DMA records in RG 326 at the College Park National Archives. There are, however, numerous collections at DOE headquarters offices and some accessions in RG 326, RG 430, and RG 434 at WNRC. The records span the time period from 1947 until the 1980s and are completely classified. No records of the Radiological Branch, or on biomedical research supported in whole or part by DMA, were ever located. Using folder listings provided by DOE for those collections in the custody of the History Division, Advisory Committee staff selected specific files in some of the collections for DOE to review and relevant records were forwarded to the Advisory Committee.[38]

Executive Secretariat

This set of files was maintained by the secretary to the commission to establish an official record of its actions. They include, among other things, information and decision staff papers, letters and memoranda showing implementation of policy decisions, and some reports of advisory bodies. The 1947-1958 files are in RG 326 at the College Park National Archives, and Advisory Committee staff examined selected files that had been declassified by DOE at the Committee's request. The 1959-1974 files are at DOE headquarters and, using a folder listing furnished by DOE, Advisory Committee staff requested that selected files be examined by DOE and relevant records were sent to the Advisory Committee.

General Advisory Committee

A complete set of agendas, summary minutes, and reports of the GAC are in RG 326 at the College Park National Archives, and are completely classified. These were not reviewed. Small portions of this collection have been declassified through the years and are located at the History Division. Advisory Committee staff reviewed these records.

Office of the General Manager

The History Division has the only known collection of records of this office, approximately 180 cubic feet in size and completely classified. This office is assumed to have generated and received many more records than this during its existence, but the balance have presumably been destroyed or lost. The collection contains, among other things, diaries of some general managers, correspondence files, reports, and meeting notes and minutes. Advisory Committee staff reviewed selected files from the General Manager's Reading Files for the period 1946-1948. Using a folder listing, Advisory Committee staff requested DOE review a limited number of other files, which was then done by DOE.

Office of General Counsel

The vast majority of OGC records are still at DOE headquarters, in the custody of DOE's OGC. The most significant collection is entirely classified and contains numerous contract and correspondence files from the 1940s to the mid-1970s. It is approximately 350 cubic feet in size, and unfortunately there is no finding aid or index. DOE and Advisory Committee staff reviewed approximately half of the 400 boxes. The records contained files on contracts (mainly with power or engineering companies), organization and management, international affairs, and patents. The majority of the documents dated from the mid-1960s. The other important collection is a small classified accession of 1946-1965 contract files in RG 326 at WNRC. These records were not examined because permission could not be obtained from the OGC.

Individual Commissioner Files

A small number of the files of some of the early commissioners are in RG 326 at the College Park National Archives. These are almost entirely declassified and were reviewed by Advisory Committee staff. The vast majority, however, are in the custody of the History Division or in RG 326 at WNRC, and entirely classified. Although Advisory Committee staff agreed they would review selected files at these repositories, there were insufficient time and personnel to do so.

Insurance Branch

A few critical records of this office were discovered by Advisory Committee staff in the RHTG collection at ORO during a November 1994 site visit to Oak Ridge. No additional relevant records from the Insurance Branch were located.

Isotopes Branch (and Successors)

The location and review of these records is discussed below in the section on the Nuclear Regulatory Commission.

Periodic Division Reports to the General Manager/Periodic AEC Reports to the Joint Committee on Atomic Energy

These completely classified collections, in the custody of the History Division, were examined by DOE.

MED/AEC Laboratory and Contractor Records Reviewed

The following discussion of the records reviewed is organized by individual laboratory or contractor. It should be noted that, with a few exceptions, there were virtually no finding aids or indexes for the vast majority of these records at the beginning of the records search. As noted above, DOE personnel devoted a great deal of time to preparing series descriptions in an attempt to develop a record of

what is at each facility. Much of the information set forth below on the contents of the various collections is derived from these.

Metallurgical Laboratory/Argonne National Laboratory

Perhaps the single richest collection is the 1942-1965 correspondence files in RG 326 at the College Park National Archives. This collection, containing approximately 160 feet of materials, is classified. Advisory Committee staff examined selected files.[39]

There are thousands of feet of records at ANL, as well, most of which are unclassified or declassified. Among the important collections are the Laboratory Director's Files (1950-1990), Plutonium Ingestion Studies, several collections on health effects of internally deposited radioactivity (1915-1990s), miscellaneous Austin Brues Files (1890s-1980s), several collections on radiation protection (1945-present), ANL Technical Reports (1946-present), and ANL Technical Notebooks (1943-present). During its March 1995 site visit, Advisory Committee staff reviewed selected files from each of these record series. With the exception of the Laboratory Director's Files, the records are held by the Center for Human Radiobiology (CHR). Staff made use of the folder listings for these files that ANL had prepared for this project. At the Records Holding Center (RHC) that housed the Laboratory Director's Files, staff used record transfer forms to select files located at the RHC and the Great Lakes Regional Federal Records Center in Chicago for review. These files included material on the programs of the Medicine, Biology, and Legal Divisions, as well as activities at the Argonne Cancer Research Hospital operated under contract by the University of Chicago. It should be noted that ANL has, through the years, accessioned a number of unclassified or declassified records to the Great Lakes Regional National Archives. Neither Advisory Committee staff nor DOE reviewed these records.

Brookhaven National Laboratory

There are many thousands of feet of records at BNL, most of which are unclassified or declassified. Among the important collections are the minutes and agendas for Clinical Oversight Committees (1952-1994), James Robertson Files (1950-1975), Human Medical Research Study Protocols (1950-1994), Human Subjects Research Policies (1947-1963 and 1970-1973), quarterly and annual reports of the Medical Research Center (1948-1963), Medical Research Center Forms (1949-present) and Proposal and Authorization for Research and Development (Form 189) (1950-ca. 1977). Advisory Committee staff visited Brookhaven in March 1995 and reviewed significant portions of these records. In addition, staff searched the papers in the Borg, Cronkite, Farr, and Sweet collections, as well as occupational exposure records. Following the visit, the Advisory Committee gained access to BNL's site-wide database, which serves as an index of the records collections maintained by each division. Through the years, BNL has transferred a number of records to the Bayonne Federal Records Center in New Jersey, but DOE reported that all relevant records for the years 1950-1975 had been destroyed, pursuant to records retention and disposition schedules.

Hanford

The records held at Hanford total many thousands of feet, and most collections are classified. Among the significant collections are unclassified and classified Chief Counsel Office Correspondence and Claims Files (1943-1980s), the unclassified and classified Research and Development Division Correspondence Files (1958-1976), and the Research Prisoner Study Files (1963-1976). Advisory Committee staff conducted a very limited document search during its brief March 1995 visit. Staff reviewed the Matthias diaries and selected files of classified Office of General Counsel records that were deemed not subject to the Privacy Act. Additionally, many collections of classified records are held at the federal records center in Seattle. The Seattle National Archives has a small collection of historical records from the early years of operation at Hanford. These records at the federal records center and National Archives were not reviewed.

Idaho National Engineering Laboratory

Many thousands of feet of records are still at INEL, but some collections have been transferred to the federal records center in Seattle. The vast majority of the collections at both repositories are unclassified or declassified. Important collections at both sites include the Chief Counsel Office Subject Files (1949-present), subject files and historical dose evaluation project files of the Radiological and Environmental Sciences Laboratory (1952-1991), files of the director of the Radiological and Environmental Sciences Laboratory (1958-1994), whole body counting records of the Radiological and Environmental Sciences Laboratory (1961-1994), Phillips Petroleum Company Radioactive Waste and Releases Files (1951-1977), and Technical Library Reports (1950-present). These records were reviewed by DOE.

Lawrence Livermore National Laboratory

Records at LLNL total many thousands of feet, the vast majority of which are classified and concern weapons design, etc. DOE initially identified a few unclassified collections that might have been pertinent to the Advisory Committee's work, but the earliest records date from 1970. During the March 1995 Advisory Committee staff visit, LLNL elaborated on its search strategy and records collections. Materials reviewed that pre-date 1970 include LLNL Technical Reports; biomedical, health services, and hazard control files; atmospheric release and advisory capability records; and the entirely classified records collection of the Nonproliferation-Arms Control-International Security Directorate. LLNL maintains electronic indices for these collections. Following a LLNL search of the Library Reports collection, Advisory Committee staff selected technical reports concerning the Marshallese. Staff also reviewed "Box 99," which is actually eight boxes of classified and formerly classified material from the University of California Radiation Laboratory.

LLNL also has a 2,200 cubic foot collection of archival records at its history office. There are several electronic and paper finding aids for the collection, including LINDOCS (a classified database for administrative and technical/programmatic records), and ARCHDOCS (an unclassified index for general administrative and programmatic records). Eighty-eight cubic feet of mostly classified Military Liaison Committee (MLC) records also are housed in the history office, and an unclassified finding aid has been

prepared for this collection.[40] As part of this project, the electronic databases were searched by key word and identified files were then reviewed. Advisory Committee staff obtained paper copies of the ARCHDOCS and the MLC finding aids and reviewed selected files.

Los Alamos National Laboratory

Records held by LANL total many thousands of feet, and with a very few exceptions are all in classified collections. Among the important collections are the MED Director's Office and Laboratory Management Records (1942-1946), Director's Office and Laboratory Management Files (1945-1970), files of the Biomedical Research Subdivision under the Health Division (1953-1955), Wright Langham Papers (1950-1971), records of the Weapons Testing Division (1946-1963), records of the Nuclear Rocket Propulsion Division (1956-1975), Laboratory Progress Reports (1945-1975), and Technical Reports (1943-present).

Although subject to certain classification restrictions, finding aids exist for the records collections held by the LANL archives and at the internal records centers. Advisory Committee staff obtained a number of the relevant finding aids before and after visiting Los Alamos in January and March 1995. Because of the volume of records, staff members were able only to sample pertinent files from selected collections. Among these collections were Project Y records, the Robert Underhill files, GMX-5 RaLa[41] Group Test records, Health Division Central Administrative records, H-4 Central Administrative records, the Wright Langham papers, J-Division Central Administrative files, N-Division Rover Program Central Administrative files, and Laboratory Notebooks.

Oak Ridge

Records are held at many Oak Ridge facilities, discussed separately below; records review at the Oak Ridge Operations Office is discussed above in the section on the MED headquarters records. At the Oak Ridge National Laboratory, significant unclassified and declassified collections include Laboratory Director's Files (1948-present), K. Z. Morgan Files (1943-1968), Walter Snyder Files (1950-1985), J. H. Lum Files (1940-1948), and Boston-Oak Ridge Uranium Study Files (1953-1958). Selected files from these collections were reviewed by Advisory Committee staff during visits in November 1994 and February 1995. There are, in addition, the following important classified collections stored in a separate holding area: Central Report Files (1943-present), CF-Prefixed Reports and Correspondence (1943-present), and Technical Research Notebooks (1943-1958). A memo register that serves as an inventory to the Central Report files is undergoing declassification as part of this project. Advisory Committee staff reviewed and retrieved documents identified from the register for the years 1943-1950.

Through the years, copies of all technical reports generated by or on behalf of the MED and its successors have been deposited with the Office of Scientific and Technical Information. Although there are some gaps, this collection is essentially complete. There is a written inventory listing all the reports from 1943-1947, and two electronic databases (one unclassified and the other classified) listing all the reports from 1947 forward. Advisory Committee staff in early 1995 requested DOE personnel to search these finding aids using key words and terms and retrieve relevant items.

The records at the Oak Ridge Institute for Science and Education include DTPA Chelation Program and Registry Files (1959-present), ORINS and ORAU Board and Council Meeting Minutes

(1946-1973), Patient and Radioisotope Log Books (1950-1986), Patient Medical Records (1950-1986), Human Total Body Irradiation Program Information (1948-1974), and Medical Correspondence and Committee Files (1947-1993). All of the records are unclassified. Advisory Committee staff reviewed ORISE periodic reports, the log books, the minutes of the Human Studies Committee and the Teletherapy Evaluation Board and also sampled a number of patient medical charts. Both the K-25 Site and Y-12 Plant also have large numbers of records, but no examination of them was conducted because of the very low probability that they would contain any information relevant to the Advisory Committee's work.

University of California Radiation Laboratory /Lawrence Berkeley Laboratory

The collections of these facilities total many thousands of feet and are completely unclassified or declassified. Considerable effort has been expended in recent years to organize these records and develop indexes and inventories for them. Accordingly, they are easier to use than most records at other sites around the country.[42] Among the important collections are the UCRL/LBL Business Manager/Research and Development Administrative Files (1946-1988), Life Sciences Division Administrator Files (1947-1988), files of the administrative assistants to the directors of the Biology and Medicine Division and Donner Laboratory (1946-1987), Donner Laboratory Clinical Logs and Notebooks (1946-1977), Patient Medical Records (1936-1983), Research Medicine and Radiation Biophysics Historical Files (1957-1979), Patricia Durbin Files (1940-1994), John Gofman Files (1950-1959), Joseph G. Hamilton Records (1943-1975),[43] John Lawrence Files (1932-1986), Thomas Sargent Files (1959-1994), and Cornelius Tobias Files (1937-1991).[44] DOE reviewed relevant files in these and other collections.

Classified Documentation and Privacy Concerns

DOE was cooperative both in arranging for access to classified collections and in expediting and coordinating the declassification of specific documents. Substantial declassification was accomplished, but the general problem of large collections of documents being unavailable to some senior ACHRE research staff members because of long-standing, unanalyzed mixtures of classified and unclassified records created significant and recurring difficulties. In general, DOE delivered documents containing Privacy Act information to ACHRE either in redacted format or in both redacted and unredacted formats. Both formats will be part of the National Archives collection, the latter appropriately identified.

Using Agency Records

Citizens and scholars alike can request information about human radiation experiments sponsored by DOE and its predecessors by calling the Radiation Research Helpline (1-800-493-2998) or by writing to the Department of Energy, Office of Human Radiation Experiments (OHRE), EH-8, 1000 Independence Avenue, S.W., Washington, D.C. 20585.

The largest body of pertinent records is maintained by the Coordination and Information Center (CIC).[45] All CIC material is declassified, screened, and redacted for public dissemination. The CIC may be contacted by writing to the Coordination and Information Center, 3084 South Highland Street, Las Vegas, Nevada 89109, or by calling 702-295-0731. Although generally equivalent for DOE-related

human radiation experiment records, the ACHRE and CIC collections are not identical; for further information, see chapter 5 of this volume.

Medical records should be requested from the facility where the medical services were performed. Current or former DOE employees may obtain their medical records from the site where they worked or from the National Personnel Record Center in St. Louis, Missouri, which may be contacted by calling 314-538-3882.[46] Dosimetry records documenting occupational radiation exposures are maintained for both government and contractor personnel; they should be requested from the DOE manager at the site where exposure may have occurred. DOE also maintains a consolidated collection of dosimetry records related to weapons testing, including both civilian and military information. Information may be requested by writing to the Dosimetry Research Program (DRP), P.O. Box 98521, Las Vegas, Nevada 89193-8521, or by calling 702-295-0731. DOE will also help to identify and locate records that are not in its custody, although citizens must contact those institutions or individuals themselves.

Several DOE components have created finding aids that may be useful in finding records relating to human radiation experiments:

- The report *Human Radiation Experiments: The Department of Energy Roadmap to the Story and the Records*, prepared by the Office on Human Radiation Experiments, provides summaries of the Office's findings and descriptions of some relevant record collections. (See endnote 19.)
- An electronic index to pertinent CIC holdings is available at the CIC and OHRE offices and at DOE's reading rooms. Citizens may request searches or do their own at those locations.
- For those with Internet access, recently declassified documents are available from DOE's Office of Scientific and Technical Information through its World Wide Web site, Opennet (http://apollo.osti.gov/html/osti/opennet/opennet1.html).[47] Another group of databases on the Internet, created by OHRE, provides full access to the documents in the CIC collection. Further information about OHRE and this complex of databases (called HREX) may be obtained from its World Wide Web site, http://www.ohre.gov.

National Military Establishment/Department of Defense

The National Military Establishment (NME) was created under the National Security Act of 1947, replacing the War Department and Navy Department. There was no comprehensive review of the massive number of records of the War and Navy departments from the early 1940s until their disestablishment, because the selected records reviewed by Advisory Committee staff evidenced no human radiation experiments or intentional releases conducted or sponsored by them.[48] The one exception to this are the records of the Manhattan Engineer District (under the War Department), which were discussed in detail in the preceding section. With passage of amendments in 1949 to the National Security Act of 1947, the NME was redesignated the Department of Defense (DOD).

The most important NME/DOD components engaged in or directing human radiation experiments and intentional releases are the following: (a) Office of the Secretary of Defense; (b) Army; (c) Air Force; (d) Navy; (e) Armed Forces Special Weapons Project and its successors, the Defense Atomic Support Agency and the Defense Nuclear Agency; and (f) the Army Epidemiological Board and

its successor, the Armed Forces Epidemiological Board. Each of these components will be discussed separately.

DOD's search process was coordinated through the specially-created Radiation Experiments Command Center (REC).

OSD Organizational History

Three groups of organizational components of the Office of the Secretary of Defense (OSD) are of interest. The first group includes the various boards and committees that had varying amounts of responsibility for coordinating and directing R&D efforts within DOD. The second group includes the various boards and committees that had responsibility for advising and formulating policy on general health and medical issues within DOD. The third group includes a limited number of committees and offices involved in areas such as nuclear weapons requirements, development, and testing; these components occasionally addressed matters such as ethical guidelines and radiological safety.

R&D Advisory Groups and Offices

The secretary of defense has always had responsibility for general coordination and direction of the R&D efforts of the various NME/DOD components, in every field from medicine to guided missiles. Numerous civilian, joint civilian/military, and military advisory boards, committees, and panels have been created within OSD to assist in this task. These groups reported directly to the secretary of defense from 1947 to 1953, and from 1953 to 1959 through a series of assistant secretaries of defense. Beginning in 1959 and continuing to this day, they report through the defense director of research and engineering.

From 1947 to late 1953 the key organization was the Research and Development Board (RDB), also created under the National Security Act of 1947. Its general responsibilities included: (1) preparing an integrated military R&D program; (2) advising on scientific research trends regarding national security and steps to assure constant progress; (3) promoting R&D coordination among the services and allocating responsibility for specific joint programs; (4) formulating DOD policy on R&D matters outside DOD; and (5) advising the Joint Chiefs of Staff (JCS) on the interaction of R&D and strategy.[49] The actual governing board of the RDB was headed by a civilian with two representatives from each of the three services (at first all six representatives were general or flag officers, and then beginning in 1949 one general or flag officer and one civilian under or assistant secretary from each service).[50] Detailed review and evaluation of the R&D programs was done by numerous technical committees, most of which in turn formed various panels.[51] The committees and panels were all headed by civilians, but membership included both civilians and military personnel.[52] The frequency of meetings varied widely, with some meeting only twice per year while others ten or more times per year.

In preparing an integrated R&D plan and managing its programs, the RDB established hundreds of *technical objectives*, each representing a specific field or subject of study and falling under the jurisdiction of one or more committee.[53] RDB committees and joint committees generated many different official documents. One important type of document was the often lengthy summary of all research projects at DOD facilities and outside contractors under a committee's jurisdiction. Such documents typically included the project number, technical objective, sponsoring or cognizant agency, investigator, level of funding, and a brief description of recent progress for each research project.[54] Another significant

type of document was the *program guidance report*. These reports normally described the immediate and future military goals under each technical objective, analyzed the existing R&D effort with relation to both, and made recommendations.[55] A third type of document was the *technical estimates*, which were typically condensed versions of the summaries.[56]

Of particular interest to ACHRE was the work of the Committee on Medical Sciences (CMS), the Committee on Atomic Energy (CAE), and the Joint Panel on the Medical Aspects of Atomic Energy (Joint Panel). Among other responsibilities, CMS and its panels (Aviation Medicine, Environmental Physiology, Military and Field Medicine, and Shipboard and Submarine Medicine) had jurisdiction over R&D under technical objectives PO-14 (preventive medicine) and PO-16 (medical treatment of casualties).[57] CAE's jurisdiction included R&D under technical objectives AW-1 (nuclear weapons, including the equipment and facilities for their manufacture, handling, and storage), AW-2 (radiological warfare agents), AW-3 (production, storage, and handling of radiological warfare agents), AW-4 (methods and equipment for the dissemination of radiological warfare agents), and IO-7 (monitoring atomic energy activities).[58] The Joint Panel was established in 1949 and reported to both CMS and CAE. It had jurisdiction over R&D under technical objectives AW-5 (radiation detection, protection, and decontamination equipment and techniques) and AW-6 (techniques and equipment for solving the medical problems of atomic warfare).[59]

In 1953, the RDB was disestablished and replaced by the Office of the Assistant Secretary of Defense (Research and Development), or ASD (R&D). General responsibilities of ASD (R&D) included: (1) providing advice and assistance to the Secretary of Defense on R&D policies, plans, and programs; (2) developing an integrated DOD R&D program; (3) assigning specific responsibilities for R&D programs where unnecessary duplication could be eliminated by such action; (4) examining the interaction of R&D and strategy and advising the JCS; and (5) reviewing proposed R&D budgets and making recommendations.[60] The highest-level advisory group within the office was the Research and Development Policy Council, whose membership included the ASD (R&D), civilian personnel from his office, and military personnel from the three services.[61] The principal duties were to assist the ASD (R&D) in the supervision of DOD R&D activities.[62]

The Office of the ASD (R&D) was initially divided into several technical sections, including a Medical Sciences Section.[63] The various sections were assisted by a series of coordinating committees whose membership included military personnel and civilians from within DOD, and which met several times a year as a staff mechanism for achieving an integrated R&D program.[64] Of particular interest to ACHRE were the Research and Development Coordinating Committee on Atomic Energy and the R&D Coordinating Committee on Medical Sciences.[65] The former had jurisdiction over technical objectives AW-1 (nuclear weapons warheads and fuses), AW-4 (dissemination of radiological agents), AW-5a (detection of radioactivity), AW-5b (protection against nuclear attacks), AW-5c (radiological decontamination), AW-7 (effects of nuclear warheads), AW-8 (radiological warfare agents), and IO-7 (monitoring atomic energy activities).[66] The latter had jurisdiction over technical objectives AW-6 (medical aspects of atomic warfare), PO-14 (preventive medicine), PO-15 (military psychiatric techniques), PO-16 (medical treatment of casualties), and SR-13 (medical sciences supporting research), among others.[67] Civilian technical advisory panels with membership from outside DOD met several times a year to advise the coordinating committees on the R&D programs and on any issues specifically requested by these committees.[68] Of particular interest were the Technical Advisory Panel on Atomic Energy and the Technical Advisory Panel on Medical Sciences.[69]

In late 1956, the Defense Science Board (DSB) was created to advise ASD (R&D) on such matters as the program and administration of basic research, component research, and the effectiveness of R&D in providing sound and technically advanced weapons systems.[70] Its 25 members included the chairmen (or designee) of the Army's Scientific Advisory Panel, the Naval Research Advisory Committee, and the Air Force's Scientific Advisory Board; the chairmen of the technical advisory panels; seven members-at-large; and the heads (or designee) of the National Academy of Sciences, the National Science Foundation, the National Bureau of Standards, and the National Advisory Committee for Aeronautics.[71] DSB generally met two or three times a year.

On March 18, 1957, the Offices of ASD (R&D) and the Assistant Secretary of Defense (Engineering) were combined into the Office of the Assistant Secretary of Defense (Research and Engineering), or ASD (R&E).[72] Initially, the basic structure and workings of the technical sections, coordinating committees, technical advisory panels, Research and Development Policy Council, and DSB were unchanged.[73] Later in 1957, however, the Research and Engineering Coordinating Committee on Medical Sciences was abolished and its responsibilities assumed by the Research and Engineering Coordinating Committee on Sciences.[74] With the passage of the Department of Defense Reorganization Act of 1958, the Office of ASD (R&E) was disestablished and all of its responsibilities transferred to the newly-created Office of the Director of Defense Research and Engineering (DDR&E).[75] The various coordinating committees remained in place until mid-1963, when they were apparently replaced by the Department of Defense Committee on Research, whose members included two individuals appointed by each service secretary and two appointed by DDR&E. This committee advised DDR&E on all facets of the R&D programs DOD undertook in the medical and biological sciences, psychological and social sciences, environmental sciences, and the physical, engineering, and mathematical sciences.[76] The various advisory panels also remained in place, although in 1962 the Research and Engineering Advisory Panel on Medical Sciences was redesignated the Advisory Panel on Medical and Biological Sciences.[77] This new panel was disestablished in 1967, but ACHRE did not discover what organization, if any, replaced it.[78] DSB continued operating as before, although over the years the number of members increased slightly.[79]

At some point in the early 1960s, the Joint Medical Research Conference was created within DDR&E. Its members included several DDR&E personnel and military and civilian physicians from the three services.[80] Meeting at least once a month, this organization did not actually review R&D proposals or budgets but rather advised DDR&E on a wide variety of medical issues and problems.[81] It continued in existence until at least 1969.

General Health and Medicine Advisory Groups and Offices

Beginning in late 1947, OSD established a series of advisory boards, committees, and offices to provide advice on various issues in health and medicine. The first of these was the Ad Hoc Committee on Medical and Hospital Services, commonly known as the Hawley Board. Membership included both civilians and the chief medical officers of the three services, and it issued its report in 1948.[82] On November 9, 1948, the Armed Forces Medical Advisory Committee was set up to give recommendations on improving medical services in the armed forces, eliminating duplication in the services' medical departments, and furthering cooperation between the military and civilian medical communities.[83] The Medical Services Division, soon renamed the Office of Medical Services (OMS), was created in May

1949 as a permanent office to set and control general policies, standards, and programs for DOD agencies.[84] OMS was succeeded by the Armed Forces Medical Policy Council (AFMPC), established in January 1951, whose members included a civilian physician as chairman, three other civilians from medicine or related fields, and the Surgeons General of the three services.[85] Among others, AFMPC's duties included developing basic medical and health policies for DOD in collaboration with relevant agencies and departments, reviewing the medical and health aspects of the policies, plans, and programs of other DOD agencies such as RDB, and advising the Secretary on differences of opinion between the two.[86]

In 1953, AFMPC was abolished and the Office of the Assistant Secretary of Defense (Health and Medical), or ASD (H&M), was created. Responsibilities of ASD (H&M) included providing advice and assistance on health and medical aspects of DOD policies, plans, and programs and collaborating with ASD (R&D) in the development of policies and the review of requirements for biomedical research by DOD.[87] The ASD (H&M) became a full member of the Advisory Panel on Medical Sciences under ASD (R&D) and its successors.[88] The assistant secretary was a civilian, but the small staff in the office included both military personnel and civilians.[89] In 1961, ASD (H&M) and the office of the Assistant Secretary (Manpower, Personnel, and Reserve) were combined into the office of the Assistant Secretary of Defense (Manpower).[90] In 1970, the health and medical responsibilities were placed in a newly-established office of the Assistant Secretary of Defense (Health Affairs), or ASD (HA).[91]

Other Organizational Components

Five additional DOD components merit discussion. The first is the Armed Forces Policy Council (AFPC), established under the 1949 amendments to the National Security Act, which included the Secretary and Deputy Secretary of Defense; the Secretaries of the Air Force, Army, and Navy; the Chairman of the JCS; Chiefs of Staff of the Air Force and the Army; and Chief of Naval Operations. Its functions were to advise the secretary of defense on matters of broad policy and to examine specific issues as requested by the secretary.[92]

The second was the Military Liaison Committee (MLC), established under the Atomic Energy Act of 1946. Its initial responsibilities included advising the secretaries of defense, Air Force, Army, and Navy on priorities for DOD atomic energy R&D and consulting with AEC on all aspects of DOD's atomic energy programs.[93] MLC had seven members--a civilian chairman and two officers from each of the three services.[94] With the creation of the office of the Assistant Secretary of Defense (Atomic Energy) in 1953, MLC was placed under that office with the assistant secretary becoming its chairman.

The third component was the Office of the Assistant Secretary of Defense (Atomic Energy), or ASD (AE), established in 1953, whose duties included: (1) recommending policies and guidance governing DOD atomic energy planning and program development, (2) developing systems and criteria for executing approved atomic energy plans and programs, and (3) liaison with the Joint Committee on Atomic Energy and the AEC.[95] As mentioned above, the ASD (AE) also served as the chairman of the MLC.[96]

The fourth component was the Joint Intelligence Objectives Agency (JIOA), which was under the Joint Chiefs of Staff from 1947 to 1962. Among other responsibilities, JIOA monitored and coordinated the PAPERCLIP program and its successor, under which the U.S. government brought over German scientists to work at various federal agencies. These responsibilities were transferred to DDR&E in 1962.

The fifth component was the Office of the Assistant Secretary of Defense (Civil Defense), or ASD (CD). Created in 1961, ASD (CD) assumed many of the responsibilities of the Office of Civil and Defense Mobilization (OCDM).[97] OCDM had in turn been established in 1958, succeeding the Office of Defense Mobilization and Federal Civil Defense Administration.[98] Under the Federal Civil Defense Act of 1950, this series of offices had several responsibilities, including the development of methods for treating casualties from nuclear, biological, and chemical attack. These offices had no in-house research facilities, so all of their biomedical research was done either by other federal agencies or by outside contractors.[99] During the existence of OCDM, this biomedical research was planned and supervised by the small Biophysics and Medical Division of Research.[100] ACHRE did not identify similar units, if any, in the Office of Defense Mobilization or the Federal Civil Defense Administration prior to the creation of OCDM.

OSD Records Reviewed

The vast majority of existing OSD records from 1947 forward are located in RG 330 at the College Park National Archives and at WNRC.[101] At the National Archives, RG 330 has over 3,200 cubic feet of records, most of which are from the 1947-1954 period. There are nearly 400 entries, which vary in size from less than one foot to many hundreds of feet. Some of the entries are still entirely classified, while others are declassified only in part. At WNRC, RG 330 has many thousands of feet of records. Most of the accessions in it are classified. Both Advisory Committee staff and DOD reviewed the great number of SF-135s at WNRC to determine which accessions to examine and what files and records to review.[102] Unless otherwise noted, the entries and accessions described in the following paragraphs are from RG 330 at either the College Park National Archives or WNRC.

Ad Hoc Committee on Medical and Hospital Services/Armed Forces Medical Advisory Committee/Office of Medical Services/Armed Forces Medical Policy Council

Advisory Committee staff examined the unclassified records of these organizations in Entries 196 and 347-354 at the National Archives. The classified accessions of agendas, summary minutes, reports, and correspondence files of the AFMPC were jointly examined by Advisory Committee staff and DOD at WNRC.

Armed Forces Policy Council

A very limited number of partially declassified records are contained in selected decimal files[103] in the Secretary of Defense's Confidential through Top Secret correspondence files in Entries 199 and 200 at the National Archives, which were looked at by Advisory Committee staff. DOD and Advisory Committee staff jointly reviewed the classified accessions of agendas, summary minutes, and related documents from the 1949-1953 period at WNRC.

Assistant Secretary of Defense (Atomic Energy)/Military Liaison Committee

There are a very small number of MLC records from 1947-1952 in Entry 184 at the National Archives, and the declassified ones were examined by Advisory Committee staff. Selected files and items in the numerous classified accessions of MLC records at WNRC for the years 1947-1975 were looked at by DOD, and together Advisory Committee staff and DOD reviewed the agendas and summary minutes for the 1955-1960 meetings. DOD examined selected correspondence files in the many classified accessions of ASD (AE) records from 1953 on at WNRC.

Assistant Secretary of Defense (Civil Defense)

Because Advisory Committee staff did not discover the existence of ASD (CD) and its predecessors until early 1995, while reviewing congressional hearing reports, no effort was made to locate or examine these records. It is likely, however, that the records of at least ASD (CD) are in RG 330 at WNRC. Those of its predecessors might be in RG 171 or RG 304 at the National Archives and WNRC.

Assistant Secretary of Defense (Health and Medical)/ Assistant Secretary of Defense (Manpower)/ Assistant Secretary of Defense (Health Affairs)

There are no records of these offices at the National Archives. At WNRC, DOD examined selected files in the numerous unclassified and classified accessions of these offices from 1953 into the 1970s.

Assistant Secretary of Defense (Research and Development)/ Assistant Secretary of Defense (Research and Engineering)

There are no records of these offices at the National Archives. DOD examined selected files in the almost entirely classified accessions of these offices at WNRC. Significantly, the only records of the Research and Development Coordinating Committee on Atomic Energy, Technical Advisory Panel on Atomic Energy, Research and Development Coordinating Committee on Medical Sciences, and Technical Advisory Panel on Medical Sciences found at WNRC were the agendas and summary minutes from their 1954-1958 meetings. There are very few records of the technical sections of these offices at WNRC. Critical documents comparable to the research summaries, *program guidance reports, and technical estimates* generated by the RDB's committees are not at WNRC and were not located. Additionally, although DOD components were required to submit periodic R&D progress reports to these offices, there are none at WNRC.[104] In an effort to locate these records, Advisory Committee staff contacted DDR&E.[105] DDR&E does not have them, and presumably they have been lost or destroyed.[106]

Defense Director of Research and Engineering

There are no records of DDR&E at the National Archives. DOD examined selected files in the mostly classified accessions for the period 1958-1975 at WNRC. The agendas and summary minutes of the Advisory Panel on Medical and Biological Sciences for the five years it was in existence (1962-1967)

were examined, but few other records of this body were located. The summary minutes of the Joint Medical Research Conference meetings from 1961-1969 were reviewed. There are relatively few records of the actual technical sections or divisions of DDR&E, but the relevant ones were looked at. Significantly, no post-1958 records of the Research and Engineering Coordinating Committee on Sciences, Research and Engineering Advisory Panel on Medical Sciences, Research and Engineering Coordinating Committee on Atomic Energy, and Research and Engineering Advisory Panel on Atomic Energy were found at WNRC. Similarly, no records at all of the Committee on Research, established in 1963, were located at WNRC. Although DOD components were required to submit periodic R&D progress reports to DDR&E, there are only a few incomplete collections of them for the years 1959 and 1960 at WNRC.[107] These collections were examined by DOD. As mentioned above, Advisory Committee staff contacted DDR&E in an attempt to locate the balance of the R&D progress reports, but they could not be located.

Defense Science Board

There are no records of DSB at the National Archives. DOD reviewed portions of the large number of unclassified and classified accessions from 1956 into the 1970s at WNRC, which contain the agendas, summary minutes, reports, and related documents.

Joint Intelligence Objectives Agency

Advisory Committee staff reviewed a limited number of declassified files of PAPERCLIP scientists at the National Archives.

Research and Development Board

There are a large number of records at both the National Archives and WNRC, and many are duplicates. At the National Archives, Advisory Committee staff and DOD looked at the agendas, summary minutes, research summaries, *program guidance*, *technical estimates*, and other official documents of the CAE, CMS, Joint Panel, Committee on Biological Warfare, Committee on Chemical Warfare, and Committee on Human Resources in Entry 341. Only the records of CMS and Joint Panel are completely declassified. Materials from CAE were also examined jointly by DOD and Advisory Committee staff in several classified accessions at WNRC. Importantly, such items as the general correspondence files of the various committees and Joint Panel are not at either the National Archives or WNRC. It is possible that these have been destroyed over the years, and that all that remains are the strictly official documents reviewed and generated by these groups at their meetings. Entry 342 contains the partially declassified verbatim minutes of the meetings of a very limited number of committees, including the Committee on Biological Warfare, Committee on Chemical Warfare, and Committee on Human Resources, and the completely declassified verbatim minutes of CMS. All these declassified records were examined by DOD and Advisory Committee staff.[108] Entry 346A contains a large number of quarterly, semiannual, and annual R&D progress reports and related materials submitted by DOD components to RDB.[109] These publications often total many hundreds of pages, and are a compilation of the reports on each individual project. The individual reports, which can vary in length from less than

one page to more than ten pages, are done on a standard RDB form and contain such information as the sponsoring agency, level of funding, applicable technical objective(s), and a summary of progress for the period in question.[110] Most of the records are declassified, and all declassified records were examined by Advisory Committee staff.[111]

Research and Development Policy Council/Research and Engineering Policy Council

There are no records of these two organizations at the National Archives. DOD reviewed a number of classified accessions at WNRC containing agendas and summary minutes from 1954 to the early 1960s.

Secretary of Defense

At the National Archives, the partially declassified Confidential through Top Secret decimal correspondence files of the secretary from the years 1947-1953 are in Entry 199 and from 1954 in Entry 200. A large number of files in both entries were looked at by Advisory Committee staff and DOD personnel, but none of the still-classified documents withdrawn from the files were examined. At WNRC, DOD examined the four small, classified accessions of pre-1954 records of Secretaries Marshall, Lovett, and Wilson, as well as selected decimal files in the classified accessions of the 1955-1960 records.

Army Organizational History

The Department of the Army was established as part of the NME under the National Security Act of 1947, succeeding the War Department. There were several organizational components of the Army of interest.[112] The first component was the Office of the Secretary of the Army, which, in June 1953, promulgated Army-wide guidelines on using human subjects in experiments. The second was the Scientific Advisory Panel (SAP), created in late 1951 by the Secretary of the Army. Its members were civilians from both inside and outside the government, and it met several times a year to review the Army's R&D program.[113] Within a few years, the SAP created several subpanels to assist it, including the Firepower Subpanel; Communications & Electronics Subpanel; Mobility Subpanel; Chemical, Biological & Radiological Warfare Subpanel; and Human Factors Subpanel.[114] The third component was the Army Field Forces (AFF), successor to the Army Ground Forces, which had responsibility for the general direction, supervision, coordination, and inspection of all matters pertaining to the training of individuals and units used in the field.[115] The relevance of the AFF to the Committee's work is primarily in its subordinate command DESERT ROCK.

The fourth component was the Office of the Surgeon General (OSG), which still exists within U.S. Army Headquarters. Its responsibilities have ranged from formulating medical plans, procedures, and policies for the Army to conducting biomedical research at its numerous subordinate commands and through outside contractors. In the late 1940s, subordinate commands conducted a wide range of biomedical research and clinical investigations, including programs sponsored by the Army Institute of Pathology; the Medical Department Research and Graduate School of the Army Medical Center; Brooke Army Medical Center at Brooke General Hospital; the Tuberculosis Nutrition and Metabolic Unit at

Fitzsimmons General Hospital; the Medical Nutrition Laboratory; the Medical Department Field Research Laboratory at Fort Knox; and several Army hospitals.[116] By the late 1950s the number of such facilities had grown to include the Army Institute of Research, Walter Reed Army Medical Center; Army Medical Unit; Army Medical Research Laboratory, Fort Knox; Army Surgical Research Unit, Fort Sam Houston; Army Prosthetics Research Laboratory; Army Medical Research and Nutrition Lab, Fitzsimmons Hospital; Army Medical Equipment and Development Laboratory, Fort Totten; Army Medical Research Unit, Malaya; Army Medical Research Unit, Panama; Army Tropical Research Medical Lab, Puerto Rico; Army Medical Research Unit, Germany; and nine Army hospitals.[117] OSG began using outside contractors when it assumed 27 such contracts from OSRD on the latter's disestablishment in late 1946.[118] Through the years, the number of outside R&D contracts increased tremendously.

All biomedical research done by or on behalf of OSG in the years 1945 to 1953 was planned, coordinated, supervised, and reviewed by the Medical Research and Development Board, whose members and staff included both civilians and military personnel from within OSG. The chairman as well as the staff worked full-time for the Board.[119] In 1953 the Board was redesignated the Research and Development Division.[120] In 1958 the Army Medical Research and Development Command replaced the Research and Development Division.[121] The officer heading this command also served as the Special Assistant to the Surgeon General for R&D Affairs.[122] Initially, the day-to-day R&D planning, coordination, supervision, and review was done by the Research Division and its subdivisions, the Basic Science Research Branch, Biophysics and Astronautics Research Branch, Dental Research Branch, Medical Research Branch, Neuropsychiatry Psychophysiology Research Branch, Preventive Medicine Branch, and Surgical Research Branch.[123]

The fifth component was the Chemical Corps and its successors. The Chemical Corps replaced the Chemical Warfare Service in 1946; like OSG, it was a technical service within U.S. Army Headquarters, headed by the Chief Chemical Officer. The Chemical Corps had primary responsibility in both the Army and DOD for R&D in the offensive and defensive aspects of biological and chemical warfare, including medical aspects.[124] Although it also had primary responsibility in the development, production, storage, transportation, testing, detection, and decontamination of radiological warfare agents, it did not have primary responsibility for the medical aspects of radiological or atomic warfare.[125] Work in its various areas of responsibility was done at several subordinate commands and through outside contractors.

In the late 1940s, the key headquarters office of the Chemical Corps was the Research and Engineering Division and its subordinate commands, including Camp Detrick, the Army Chemical Center (Medical Division, Edgewood Proving Ground, and Technical Command), San JoseProject, and Dugway Proving Grounds.[126] Radiological warfare work was centered in the Radiological Division of the Technical Command from 1948-1951, the Radiological Division of the Chemical and Radiological Laboratories from 1951-1956, the Chemical Warfare Laboratories of the Research and Development Command from 1956-1960, and the Radiological Laboratory and then the Nuclear Defense Laboratory after 1960. With the disestablishment of the Chemical Corps in 1962, all of its facilities, personnel, and functions, including the Nuclear Defense Laboratory, were transferred to the Army Material Command. In 1970, the Nuclear Defense Laboratory was redesignated the Nuclear Efforts Laboratory.[127]

Throughout its existence, the Chemical Corps was served by several advisory groups. The Research Council of the Chemical Corps Advisory Board was established in 1946 to advise the Chief

Chemical Officer on all aspects of the R&D program.[128] Meeting generally twice a year, the majority of its members were civilian scientists from outside the government.[129] A number of subcommittees thereunder were formed to look at different aspects of the R&D program, including the Medical and Related Problems Subcommittee.[130] In 1953, the Research Council was redesignated the Chemical Corps Advisory Council and, as part of this, the Medical and Related Problems Subcommittee became the Medical Committee.[131] Another advisory group was the American Chemical Society Committee Advisory to the Chemical Corps (ACS Committee), originally established in 1920. In the postwar period, it had four subcommittees: Industrial Relations, Research, Educational, and Public Relations.[132] Also meeting generally twice a year, its members were all civilian scientists from outside the government.[133] Still another advisory group was the Society of American Bacteriologists Committee Advisory to the Chemical Corps, which was established in the mid-1950s.[134] In 1961, it was redesignated the American Society for Microbiology Committee Advisory to the Chemical Corps.[135] After the disestablishment of the Chemical Corps in 1962, the Chemical Corps Advisory Council continued in existence for at least several years. The Advisory Committee did not determine whether the other advisory bodies also continued in existence.

The sixth and final Army component was the Director of Intelligence, or G-2, directly under the Army Chief of Staff. G-2 kept voluminous files on the German scientists brought to the United States under the PAPERCLIP program and its successor.

Army Records Reviewed

Army Field Forces

RG 337 has the records of the AFF and its predecessor, the Army Ground Forces. Most records through the mid-1950s of the AFF and its predecessor are in RG 337 at the College Park National Archives.[136] RG 337 was largely classified until Executive Order 12937 declassified it in bulk, except for the Restricted Data documents which were withdrawn by National Archives personnel before the records were made available to the public. Advisory Committee staff examined numerous decimal files in Entry 55, Confidential and Secret 1951-1954 correspondence files of the chief, AFF; Entry 56, unclassified 1950-1954 correspondence files of the chief, AFF; Entry 86, unclassified through Secret 1942-1946 Chemical Section files; Entry 89B, Confidential and Secret 1947-1948 Medical Section files; and Entry 90, unclassified 1948 Medical Section files. None of the withdrawn items, some of which pertain to DESERT ROCK, were reviewed.

Significantly, the only Top Secret records of the chief, AFF, in the record group are those for the years 1948-1950. These were not reviewed by Advisory Committee staff. In an effort to locate the Top Secret records for the years 1951-1954 and any other pertinent materials, Advisory Committee staff examined the SF-135s for RG 337 at WNRC. However, neither these Top Secret records or any other pertinent ones were located.

Chemical Corps

RG 175 contains the records of the Chemical Warfare Service, Chemical Corps, and its successors. The only Chemical Corps records at the National Archives are a very small collection (less

than 200 feet) of unclassified through Secret records from the late 1940s in RG 175 at the Suitland National Archives.[137] There is no finding aid for them, and they were not reviewed.

RG 175 at WNRC has a large number of records of the headquarters and subordinate commands of the Chemical Corps and some of its successors from the 1940s into the late 1960s. Although there are a few unclassified and declassified accessions, the vast majority are classified (all of them either Confidential or Secret, as there are no Top Secret records at WNRC). Advisory Committee staff examined the voluminous SF-135s and identified numerous R&D progress reports, histories of various subordinate commands, correspondence and subject files, and agendas, minutes, and reports of the advisory bodies for review and retrieval by DOD.[138] With the exception of a few items that could not be located, DOD conducted a comprehensive search as requested. DOD also examined a number of mostly classified periodic histories of various Chemical Corps offices and components from the late 1940s to the early 1960s, which are at the Army's Center for Military History or have been accessioned by that organization into RG 319 at WNRC.

DOD also performed an extensive examination of the large volume of both declassified and classified records held at various repositories at Edgewood Arsenal, Maryland. These repositories were (1) the Office of the Command Historian, Corporate Information Office, Chemical and Biological Defense Command (CBDCOM); (2) CBDCOM Technical Library; and (3) Edgewood Area Records Holding Area.[139] In an effort to locate any Top Secret records, DOD queried various personnel at CBDCOM, including the command historian.[140] All the responses indicated that all the Top Secret documents were declassified some years ago or, if not declassifiable, were destroyed.

Army Chief of Staff

RG 319 has the records of the Army staff, including those of the chief of staff. This record group at the College Park National Archives has many of the 1947-1954 records, and in some instances records from subsequent years.[141] Advisory Committee staff examined a limited number of partially declassified Confidential and Secret decimal files of the Chief of Staff from the 1950-1954 period in Entry 2. RG 319 at WNRC has several thousands of feet of mostly classified records from the mid-1950s on, but no review of any Chief of Staff records therein was done.

Director of Intelligence

Advisory Committee staff examined a limited number of both declassified and classified Investigative Records Repository (IRR) files on PAPERCLIP scientists in RG 319 at the National Archives. Additionally, Advisory Committee staff reviewed a limited number of classified IRR files on these scientists at the U.S. Army Intelligence and Security Command at Ft. Meade, Maryland.

Office of Surgeon General

RG 112 contains the records of OSG. There are virtually no post-World War II OSG records in RG 112 at the National Archives, but RG 112 at WNRC has several thousands of feet of headquarters records dating from the 1940s to the 1970s in both unclassified and classified accessions. Significantly, all the classified records are either Confidential or Secret with the exception of one accession which

contains the 1949-1950 Top Secret decimal files of the immediate office of OSG. Advisory Committee staff examined the voluminous SF-135s and identified many decimal, numeric-subject, and subject files; R&D progress reports; histories of subordinate commands; contract files; and agendas, minutes, and reports of certain advisory groups for review and retrieval by DOD.[142] With the exception of a few boxes that could not be located or had been withdrawn by OSG, DOD conducted a comprehensive review as requested.

DOD also examined a number of mostly unclassified periodic histories of the immediate office of OSG and various subordinate commands at the Army's Center for Military History or which have been accessioned by that organization into RG 319 at WNRC. In an effort to locate other Top Secret records, DOD queried various OSG personnel, including the chief of the Records Management Branch.[143] All the responses indicated that, with the exception of the one accession of 1949-1950 Top Secret records in RG 112 at WNRC, all the Top Secret records from the 1940s into the 1970s were destroyed.

Scientific Advisory Panel

DOD examined the agendas, summary minutes, and related records of the SAP from the 1950s in several classified accessions in RG 319 at WNRC.[144]

Secretary of the Army

RG 335 holds the records of the Office of the Secretary of the Army, and many records from the 1947-1954 period are in RG 335 at the College Park National Archives.[145] Advisory Committee staff examined a limited number of decimal files in the 1953 unclassified correspondence files of the Secretary. All the Confidential through Top Secret correspondence files of the secretary are still classified, and these were not examined. RG 335 at WNRC has several thousands of feet of mostly classified records from the mid-1950s on, but no examination of the SF-135s or any records was conducted.

Air Force Organizational History

The Department of the Air Force was created as part of the NME under the National Security Act of 1947, succeeding the Army Air Forces, which had been part of the War Department. There were several organizational components of interest. The first was the U.S. Air Force (USAF) Medical Service, established in 1949; prior to this the Air Force did not have its own separate medical service.[146] At least in the early years, Medical Research Division (under the Director of Professional Services within the USAF Medical Service) had the responsibility of supervising, coordinating, and exercising policy guidance for all biomedical research conducted at Air Force facilities and by outside contractors.[147] In contrast to the Army and Navy, these facilities were not subordinate commands but were attached to operational commands.

The second component was the Air Force facilities that performed biomedical research in-house or through outside contractors. In the late 1940s, these included the School of Aviation Medicine under the Air University, Aero Medical Laboratory under the Air Material Command, the Arctic Aeromedical Laboratory under the Alaskan Air Command, and several hospitals.[148] By the late 1950s, there were in

addition the Biophysics Division under Air Force Special Weapons Command, and the Aeromedical Field Laboratory under the Air Force Missile Development Center.[149]

The third component was the Scientific Advisory Board (SAB). Created in 1947 as the successor to the Army Air Forces Scientific Advisory Group, it reviewed and evaluated the Air Force's R&D program at its biennial meetings and made recommendations to the chief of staff and certain key offices in USAF Headquarters.[150] Its chairman was a civilian from outside the government, assisted by a small number of full-time civilian and military personnel.[151] Various panels were formed to examine and report on R&D programs in specific areas, and the chairmen and members of these panels were all also civilians from outside the government.[152] The panel whose work was of greatest interest to the Advisory Committee was the Aeromedicine and Psychology Panel and its successors, Aeromedicine and Social Sciences (1949), Aeromedicine (1950-1953), Aeromedical Research (1954-1959), and Aeromedical/Biosciences (1959-present).[153] On occasion, the SAB would also form ad hoc panels to report on specific problems. During the 1947-1964 period there were three such ad hoc panels whose work was relevant to the Advisory Committee: Medical Research and Development in the USAF (December 1950), USAF Radiobiology Program (November 1959), and Space Radiation Effects (June 1963).[154]

The fourth component was the Air Force Office for Atomic Energy (AFOAT-1), Deputy Chief of Staff/Operations, in USAF Headquarters. In 1947 the Army Air Forces were assigned responsibility for detecting nuclear explosions around the world and for the collection, analysis and evaluation of the resulting scientific data.[155] With the creation of the Department of the Air Force, this mission was given initially to the deputy chief of staff for materiel, and then transferred to the deputy chief of staff for operations.[156] Shortly thereafter, the AFOAT-1 office was established to perform this mission.[157] The interest of the Advisory Committee is in the possible relationship between the long-range detection program and some intentional releases.

The fifth component was the Office of the Chief Scientist, created in 1950. The chief scientist was a civilian scientist who was appointed to the full-time position by the chief of staff to advise the latter on various scientific and R&D questions.[158]

The sixth component was the Air Research and Development Command (ARDC), established in 1951, which was the parent command of several R&D organizations including the Air Force Cambridge Research Center, Air Force Flight Test Center, Rome Air Development Center, Wright Air Development Center, Arnold Engineering Center, Air Force Missile Test Center, Air Force Armament Test Center, and Air Force Special Weapons Command (which was involved in various R&D relating to nuclear weapons).[159] In 1961, ARDC was redesignated the Air Force Systems Command, and later that year the Aerospace Medical Division, including the School of Aviation Medicine, was assigned to it.[160]

Air Force Records Reviewed

Aeromedical Field Laboratory/Aero Medical Laboratory/Arctic Aeromedical Laboratory/Biophysics Division, Air Force Special Weapons Command/School of Aviation Medicine

RG 342 contains the records of commands and units outside of USAF Headquarters. There are no records of these commands or units in RG 342 at any National Archives facility in the Washington,

D.C., area. RG 342 at WNRC has many thousands of feet of records; Advisory Committee staff reviewed approximately one-third of the SF-135s and identified several files within the many unclassified accessions of School of Aviation Medicine (SAM) records for DOD review and retrieval, which was then done.[161] Virtually all of the SAM records at WNRC are from 1960 on. DOD also reviewed the extensive holdings of records at SAM, as well as their unclassified periodic histories from the late 1940s to the 1980s.

Air Research and Development Command

RG 342 at the St. Louis National Personnel Records Center has a large number of both unclassified and classified accessions of ARDC records from the 1950s. DOD reviewed a number of files in both unclassified and classified accessions.

Assistant for Atomic Energy, Deputy Chief of Staff/Operations

RG 341 contains the records of USAF Headquarters. In RG 341 at the College Park National Archives, Entry 199 contains the partially declassified decimal files from 1951-1953 on biological and chemical warfare, and Entries 390-392 contain the classified records from the early 1950s on the 1009th Special Weapons Squadron.[162] DOD examined selected files in all four entries. RG 341 at WNRC has a number of classified accessions with records from the late 1940s on, and DOD reviewed selected files. DOD and Advisory Committee staff also looked at the classified periodic histories of AFOAT-1 for the years 1947-1955, which are at the Office of Air Force History.

Office of the Chief Scientist

There are a very limited number of partially-declassified records from the early 1950s in Entry 11 of RG 341, and they were examined by DOD. There are several classified accessions of later records in RG 341 at WNRC, but these were not reviewed.

Office of the Surgeon General

There are a limited number of unclassified and declassified OSG records from the 1940-1954 period in RG 341 at the National Archives. The key entries are Entry 43, which has the 1950-1951 unclassified decimal files of the immediate office of OSG; Entry 44, which has declassified (formerly Confidential and Secret, not Top Secret) historical studies, reports, and subject files from 1947-1954; and Entry 52, which has the declassified (formerly Confidential and Secret, not Top Secret) 1949 decimal files of the director of professional services. DOD and Advisory Committee staff examined selected files, studies, and reports in these collections. In RG 341 at WNRC, there are numerous unclassified accessions of OSG records and histories. DOD examined selected files and histories in several from the late 1950s to early 1980s.

Scientific Advisory Board

DOD reviewed the agendas, minutes, and reports of selected permanent and ad hoc committees from 1947 forward, located in several classified accessions in RG 341 at WNRC or at the SAB office in the Pentagon.

Secretary of the Air Force

RG 340 contains records of the Secretary of the Air Force, and at the College Park National Archives, RG 340 contains about 2,000 cubic feet of records.[163] Most of the records are from the 1947-1954 period, and they are largely classified. DOD reviewed selected files. RG 340 at WNRC has a huge number of records, most of which are classified and are from the mid-1950s on. DOD examined selected files in several accessions.

Navy Organizational History

The Department of the Navy was established as part of the NME under the National Security Act of 1947, succeeding the Navy Department. There were several organizational components of interest. The first was the Bureau of Medicine and Surgery (BUMED), originally created under the Navy Department and headed by the Surgeon General. BUMED's responsibilities have included initiating and conducting a wide range of biomedical research both in-house at its many subordinate commands and through outside contractors. In the late 1940s, the subordinate commands were the National Naval Medical Center; Naval Medical Research Laboratory, Submarine Base, New London; Naval Medical Research Unit No. 1, University of California at Berkeley; Naval Medical Research Unit No. 2, Taipei (Taiwan); Naval Medical Research Unit No. 3, Cairo (Egypt); Naval Medical Research Unit No. 4, Great Lakes; Naval School of Aviation Medicine and Research, Naval Air Station, Pensacola; Naval Medical Field Research Laboratory, Camp Lejune; Aeronautical Medical Equipment Laboratory, Naval Base, Philadelphia; Physiological Test Section, Service Test Division, Naval Air Station, Patuxent River; Naval Unit, Biological Division, Camp Detrick (an Army Chemical Corps facility); and several Navy hospitals.[164] All of these facilities continued operating into the 1960s, although some had been renamed.[165] In 1961 the radiobiological program at the Naval Medical Research Institute was transferred in part to the Naval Radiological Defense Laboratory and in part to the newly created Armed Forces Radiobiology Research Institute under the Defense Atomic Support Agency.[166]

A second component was the Office of Naval Research (ONR), established in 1946 pursuant to Public Law 79-588. ONR's responsibilities have included the planning, initiating, and coordinating of naval research and conducting research in conjunction with other Navy offices.[167] In the late 1940s, the Division of Medical Sciences exercised this responsibility within ONR in the biomedical research field, and it had the following branches: Physiology, Biochemistry, Microbiology, Psychophysiology, Psychology, Human Ecology, Biophysics, and Dental.[168] Most ONR research, including biomedical research, was actually performed by outside contractors. In addition to its own biomedical research, ONR also managed some BUMED projects.[169]

From the beginning, ONR was assisted in its tasks by the Naval Research Advisory Committee (NRAC), whose members were all civilians from outside the government. NRAC met at least twice a

year and advised the secretary of the navy, chief of naval operations, and ONR on the general Navy R&D program.[170]

The third component was the Naval Radiological Defense Laboratory (NRDL). NRDL was established in late 1946 by the Bureau of Ships (BUSHIPS), initially to develop instruments and equipment for detection of radioactivity and protection of personnel on ships, and methods and equipment for ship decontamination.[171] By the early 1950s its mission had been expanded to include basic and applied research on the physical and biological effects of ionizing and thermal radiation, development and evaluation of radiation detection devices and shielding equipment, preparation of training information for use by federal agencies and government contractors, and development of the use of radioisotopes and other tracer techniques in the above fields.[172] Although under the operational command of BUSHIPS, close liaison was maintained with BUMED on all aspects of the biomedical research program.[173] Work at NRDL was performed both in-house and through outside contractors. NRDL was disestablished in 1969.[174]

Navy Records Reviewed

Bureau of Medicine and Surgery

RG 52 contains the records of BUMED.[175] The pre-1952 unclassified records of BUMED headquarters, as well as a limited number of declassified BUMED headquarters records from the 1940s and 1950s, are in RG 52 at the College Park National Archives, and the unclassified records from 1952 into the 1980s are in RG 52 at WNRC.[176] DOD and Advisory Committee staff examined relevant files at both repositories. In an effort to locate further classified or declassified postwar records, both DOD and Advisory Committee staff contacted the historian at BUMED, the records management office at U.S. Navy Headquarters, and the Naval Historical Center at the Washington Navy Yard. Additionally, DOD interviewed several retired BUMED personnel. However, no further classified or declassified records were located. Over the years a limited number of periodic histories of BUMED have been written; DOD and Advisory Committee staff reviewed these in the office of the BUMED historian.[177]

Along with other government agencies, all Navy medical facilities were instructed to locate, review, and copy records pertinent to the Advisory Committee's work in early 1994. These facilities conducted a comprehensive search, involving examination of their own holdings and holdings at the regional federal records centers and National Archives, as well as interviews of active duty and retired personnel.[178]

Naval Radiological Defense Laboratory

Apart from the unclassified periodic histories and technical reports and publications, it appears that only a very limited number of correspondence files, subject files, contract files, and related items survived the disestablishment of NRDL. Those that did are for the most part in both unclassified and classified accessions in RG 181 at the San Bruno Federal Records Center, and relevant portions were examined by DOD. DOD contacted numerous retired personnel in an effort to locate additional records, but none were ever found.

Naval Research Advisory Committee

The records of this advisory group are located at the Office of Naval Research, and all the minutes of its meetings from the 1940s forward were examined.

Office of Naval Research

RG 298 contains the records of ONR. There are very few ONR records in RG 298 at the College Park National Archives.[179] DOD reviewed a limited number of declassified records in RG 298 at College Park, and all the voluminous and largely classified records of the Medical Sciences Division and its successor, the Life Sciences Division, of ONR for the years 1946-1978 in RG 298 at WNRC.

Secretary of the Navy

RG 428 contains the records of the Secretary of the Navy. There are about 4,000 cubic feet of records in RG 428 at the College Park National Archives.[180] DOD examined selected declassified files for the years 1946-1954 at College Park, and selected classified files for the years 1955-1975 in RG 428 at WNRC.

Armed Forces Special Weapons Project/Defense Atomic Support Agency/Defense Nuclear Agency - Organizational History

The Armed Forces Special Weapons Project (AFSWP) was established by the Secretaries of War and Navy on January 1, 1947, to assume certain responsibilities of the Manhattan Engineer District, including (1) providing a means for military participation in the development of nuclear weapons, (2) technical training of bomb commanders and weaponeers, and (3) coordination of radiological safety within the military.[181] The charter for AFSWP was reissued by the Secretary of Defense in October 1947, at which time AFSWP was also charged with coordinating with the AEC on matters pertaining to the research, development, production, stockpiling, and tests of nuclear weapons; advising the JCS on stockpile composition, allocation, and dispersal; planning for and supervising DOD research into nuclear weapons effects and the conduct of DOD weapons effects tests; and a wide range of training and inspection tasks.[182] AFSWP was a multiservice organization, reporting to the secretary of defense through the Joint Chiefs of Staff.[183] It was succeeded by the Defense Atomic Support Agency (DASA) in 1959.[184] DASA was in turn replaced by the current Defense Nuclear Agency (DNA) in 1971.[185] The headquarters of the AFSWP and its successors has always been in the Washington, D.C., area, with a field command located at Sandia Base in New Mexico.

In 1961 the radiobiological program of the Naval Medical Research Institute was transferred in part to the Navy's NRDL and in part to the newly established Armed Forces Radiobiology Research Institute (AFRRI) under DASA.[186] AFRRI continued as a part of DASA and DNA until 1993, when it was transferred to the Uniformed Services University of the Health Sciences.

Volume 2

AFSWP/DASA/DNA Records Reviewed

RG 374 contains the records of AFSWP and its successors. There is a small number of AFSWP Headquarters records in RG 374 at the College Park National Archives.[187] There are many more AFSWP and DASA headquarters and field command records in RG 374 at WNRC. There are also a limited number of records at DNA headquarters and at the field command. Virtually all the collections at these repositories are still classified. DOD conducted a box-by-box search of all of them, but, other than the reports by investigators, very few records of the biomedical research sponsored by the three organizations appear to have survived.

Several hundred periodic and programmatic histories have been prepared by AFSWP and its successors through the years, all of which are classified. At the Committee's request, DOD provided the cover pages, table of contents, and any relevant portions of many of these. DOD also examined the classified and unclassified collections of technical reports at the DNA Technical Library and the DOD Nuclear Information Analysis Center in Santa Barbara, and provided copies of relevant documents. The unclassified records of AFRRI, including the annual histories, were examined. Lastly, at the Advisory Committee's request DOD reviewed selected classified materials it collected in connection with the histories of the nuclear weapons tests prepared for the Nuclear Test Personnel Review (NTPR) program. The NTPR program, among other things, sought to collect documentation from throughout the federal government on atmospheric U.S. nuclear tests and to prepare histories on each series of tests.

Army Epidemiological Board/Armed Forces Epidemiological Board Organizational History

The Army Epidemiological Board (AEB) was created by the Army Surgeon General in 1941 to advise and conduct research on infectious diseases of importance to the military. It was headed by a director and comprised a central board and various commissions. Each commission specialized in a specific category of disease and sponsored research in that area. All the members of the central board were physicians, and the members of the various commissions either physicians or other health professionals. The Army surgeon general appointed the members to these bodies. Research proposals, mostly from civilian researchers, were submitted initially to the relevant commission. If approved, the proposal was then forwarded to the central board, which sent those it reviewed favorably to the Army's Office of Surgeon General for funding.[188]

In 1949, the AEB was succeeded by the Armed Forces Epidemiological Board (AFEB). The organizational structure remained the same, but now the director and members of the central board and commissions were nominated by the three surgeons general and appointed by the secretary of the army. Because the Department of the Army had management responsibility for it, the AFEB continued reporting to the Army's Office of Surgeon General and receiving its funding from that office. The three services provided the executive secretary of the AFEB in rotation.[189]

In May 1960, the full AFEB created the Ad Hoc Committee on Radiation to centralize the work of AFEB studying the effects of ionizing radiation on infection and immunity.[190] In 1963, the AFEB established a Commission on Radiation and Infection.[191] This commission was disestablished in 1968.

AEB/AFEB Records Reviewed

RG 334 at the College Park National Archives has a large number of AEB and AFEB records from the mid-1940s to the early 1960s.[192] Entry 13 has unclassified general correspondence files from 1946-1963; Entry 13A has the agendas and summary minutes of the open and executive sessions of the Central Board from 1948-1963; Entry 13B has the still-classified general correspondence files from 1948-1963; and Entry 14 has the records of the individual commissions, including the agendas and summary minutes of meetings, directors' reports, research proposals, and periodic progress reports on research projects. All the records in Entries 13 and 13A were examined by Advisory Committee staff, as well as selected records in Entry 14. Although no evidence was uncovered of any human radiation experiments funded by either the AEB or AFEB, the records were a rich source of information on the use of different subjects in a wide range of medical experiments (federal and state prisoners, including female prisoners; mentally retarded children and adults; etc.) and the guidelines and policies governing such research.

Advisory Committee staff examined a large number of SF-135s for RG 334 at WNRC but did not find any accessions of AFEB records. However, Advisory Committee staff did find a number of unclassified accessions of such records while reviewing the SF-135s for RG 112 at WNRC.[193] Although most of the records are from the early 1960s on, there are some from prior years, most of which are duplicates of the records in RG 334 at the National Archives. Advisory Committee staff examined the records of the Commission on Radiation and Infection in one unclassified accession.[194]

Classified Documents and Privacy Concerns

DOD was cooperative both in expediting the declassification of documents and in arranging access to classified collections. The mixture of classified and unclassified collections, so much of a problem in some DOE records, was not an issue in DOD records. It was DOD's practice, however, to send records to the Advisory Committee unreviewed for privacy information, with a standard note that, "The Committee staff should thoroughly review the material and redact Privacy Act information prior to releasing any information to the public." Because Advisory Committee staff did not in general have the resources to redact agency records, most DOD materials transferred to the National Archives are marked as containing protected information. NARA has been notified of this situation, and is prepared to handle the public access issues.

Using Agency Records

Information concerning human radiation experiments sponsored or conducted by DOD is available chiefly through the Radiation Experiments Command Center (RECC), the DOD equivalent of DOE's Office of Human Radiation Experiments. RECC is operated under contract by Science Applications International Corporation (SAIC). The primary method of contacting RECC is by referral from the DOE Radiation Research Helpline (1-800-493-2998); RECC does not provide direct telephone assistance. Citizens may also write directly to RECC: Radiation Experiments Command Center, 6801 Telegraph Road, Alexandria, Virginia 22310-3398. Individuals contacting RECC will be requested to fill out a survey form to facilitate the search for records responsive to their requests. The RECC and ACHRE

collections of DOD materials are generally equivalent. For further information on RECC documentation, see chapter 5 of this volume.

RECC does not keep medical records but will assist those who request them by contacting the appropriate facility and referring the individual there. Active duty military personnel will find their complete medical records at their current duty stations; upon retirement or discharge, their files are transferred to the National Personnel Records Center in St. Louis. Former military personnel may contact the Center directly (314-538-3882).[195]

RECC maintains a database of information on human radiation experiment documents identified during DOD's search, and a database of secondary information concerning the history and policy behind the activities. Case files on individuals exposed to radiation are being created and categorized by exposure. RECC will also help citizens contact private institutions involved in DOD-sponsored programs, within the limits of the Privacy Act.

Another DOD resource is the Nuclear Test Personnel Review (NTPR) program operated by the Defense Nuclear Agency (DNA), which has obtained a considerable volume of records and information related to military and civilian participants in atmospheric nuclear tests between 1945 and 1962. Unclassified and declassified records that do not contain privacy information can be reviewed by the public at a special library at DNA headquarters. The program also provides certain informational and referral services to participants. The address is: Defense Nuclear Agency, Nuclear Test Personnel Review Program, 6801 Telegraph Road, Alexandria, Virginia 22310; telephone 1-800-462-3683. Additional services may be available through the VA's Ionizing Radiation Registry Examination Program (see VA section, below).

Department of Health and Human Services

History

The Department of Health and Human Services (HHS) is the federal agency most directly concerned with public health and health-related research. The landmarks for the organization as a whole were the creation of the Federal Security Agency (FSA) in 1939, the establishment of the Department of Health, Education, and Welfare (DHEW) in 1953, and HEW's reorganization into DHHS in 1980.

The major DHHS activity of interest to the Advisory Committee is the U.S. Public Health Service (PHS), one of the five major operating divisions of DHHS. From 1944 to 1967, PHS included the Office of the Surgeon General, the National Institutes of Health (NIH), the Bureau of State Services (BSS), and the Bureau of Medical Services. After reorganization in 1968, PHS--including NIH, the Food and Drug Administration (FDA), and the Health Services and Mental Health Administration--reported to the Assistant Secretary for Health and Scientific Affairs. Since 1973, DHHS components relevant to the Advisory Committee's work have included the Office of the Assistant Secretary for Health (OASH), the Centers for Disease Control and Prevention (CDC), FDA, the Indian Health Service (IHS), and NIH. The two historically significant agencies for radiation research within PHS are BSS and NIH.

Historically responsible for industrial and occupational health within PHS, BSS began to study the biological effects of radiation as part of research on worker and public health. The studies were conducted by a component of BSS, the Bureau of Radiological Health (BRH), which also served as liaison to the Atomic Energy Commission and Department of Defense. BRH sponsored extramural

research related to radiation and its public health hazards. It also ran regional sampling and research laboratories, including the national monitoring network for radioactive fallout from the atmospheric testing of nuclear bombs, sampling and research laboratories in Nevada and Alabama, the bone strontium sampling program, and the national milk testing network.

NIH has been the major federal sponsor of biomedical research since the end of World War II and the dissolution of the Committee on Medical Research (CMR) of the Office of Scientific Research and Development, which had sponsored such work during the war.[196] During the Korean War, representatives of PHS participated in interagency working groups that planned biomedical research of military relevance, including the Joint Panel on Medical Aspects of Atomic Warfare. Today NIH is one of the primary federal sponsors for extramural biomedical radiation research. Most of the early grant applications submitted to NIH for radiation research funding were reviewed by the Radiobiology (later Radiation) Study Section of NIH.

NIH's intramural research is conducted by various institutes. Those of interest to the Advisory Committee include the National Cancer Institute (NCI), which funded and conducted radiation research related to cancer; the National Heart (now Heart, Lung, and Blood) Institute ; and the National Institute of Arthritic and Metabolic Diseases (since reorganized into two separate Institutes). In 1953 NIH created an intramural research hospital, the NIH Clinical Center, and centralized its intramural radiation research there. The Clinical Center had a radiation wing in which such research was conducted.

Agency Search Processes

The DHHS search process was coordinated through the NIH Office of Extramural Research, which established an NIH Human Radiation Studies Task Force to manage the agency search process. The records most relevant to the Advisory Committee's work comprise three sets of materials: (1) records of extramural research funded by NIH and BRH; (2) records of intramural research conducted by PHS components (most significantly, work done at the NIH Clinical Center); and (3) organization and policy documents relevant to program history, links with other federal agencies interested in human radiation research, and the history of ethics guidelines for human subjects research generally.

Because most experimental medical research is either conducted or funded by the Public Health Service (PHS), PHS established a working group to coordinate the DHHS records retrieval effort. Each agency within DHHS conducted a key word search on the SF-135 that described the records it had transferred to federal records centers.[197] This search generated a list representing more than 1,000 cubic feet of possibly relevant records. Most of the records identified by this search belonged to NIH, although the FDA and the CDC also identified records descriptions containing the key words. NIH staff physically reviewed 1,200 boxes of records at the National Archives that might have contained information concerning its pre-1974 sponsored research, and identified seven boxes as potentially relevant. The NIH Task Force also requested the directors of the 20 institutes and centers at NIH to search their files for protocols of intramural human radiation experiments. This search request did not locate any relevant documents.

The Bureau of Radiological Health also supported radiation research by contract and by grants. During a reorganization in 1971, FDA received BRH's radiological public health program and its records. FDA reported that it had not conducted or sponsored human radiation experiments, but made approximately 26 boxes of BRH records available to the Advisory Committee. FDA and Advisory

Committee staff reviewed the BRH documents at Suitland and identified 18 BRH experiments relevant to the Advisory Committee's charge.

NIH Extramural Program

The NIH Division of Research Grants (DRG) is responsible for managing grant information related to the extramural research program. DRG searched all historical files of its Office of the Director and prepared an inventory of records found. Files of the NIH Director's Office were also searched. After reviewing early grant data, DRG reported that only minimal information was available for grants for the period from 1944-1961.[198] The amount of information increased slightly for the period 1962-1966.[199] NIH provided a list of all awards in which grant applications were reviewed by the Radiobiology Study Section and its successors. Experiments involving ionizing radiation and human subjects that were reviewed by other study sections before 1966 were not included in this list, because NIH reported that any applications proposing significant radiation activities would have been assigned to the Radiobiology Study Section or its successors.

NIH Clinical Center

NIH created an electronic database of information relating to Clinical Center protocols.[200] The Medical Records Department of the Clinical Center has records for the 245,000 patients admitted to the Clinical Center since it opened in 1953. Much of the Clinical Center's work is experimental, and including diagnostic/therapeutic procedures involving radiation. NIH staff also reviewed the Medical Board minutes and the Radiation Safety Committee minutes from the Clinical Center.

National Archives Collection

NIH (with contractor support) conducted a targeted search of FSA, DHEW, PHS, OASH, and NIH records at the National Archives and WNRC for any documents that either (1) identified pre-1974 research of particular interest to the Advisory Committee; or (2) contained evidence of interagency radiation research with other federal agencies.

Evolution of Ethics Policy

Although the history of ethics policy development at NIH was relatively well documented before the work of the Advisory Committee, DHHS located documents concerning the evolution of consent policy at the Clinical Center. These materials show the varying perspectives of legal counsel and the Medical Board in the 1950s concerning the need for formal consent documents for all patients admitted to the Clinical Center.

Contemporary Projects

In conjunction with the Advisory Committee's contemporary Research Proposal Review Project (RPRP-see chapter 4 of this volume), Advisory Committee staff worked with DHHS staff to search the

online CRISP (Computer Retrieval of Information on Scientific Projects) database for abstracts of extramural studies involving human subjects that were approved and funded between fiscal years 1990 to 1993. From this search, DHHS generated a preliminary printout of *all* fiscal year 1993 studies involving ionizing radiation, a *sample* of fiscal years 1990 to 1992 studies involving ionizing radiation, and a *sample* of nonradiation studies from fiscal years 1990 to 1993. In addition, staff received Request for Protocol Approval forms (including abstracts) for fiscal year 1993 intramural CDC human research studies, which are not available on CRISP. Abstracts of intramural human subjects research from other DHHS entities (NIH, Agency for Health Care Policy and Research, and FDA) were also provided.

ACHRE Staff Search Processes

ACHRE staff searched the Advisory Council minutes for the three NIH institutes listed above. Staff also selected certain documents from the FDA's Bureau of Radiation Health files at the federal records center in Suitland. The staff conducted some independent historical work in order to understand better the NIH's role in radiation research, including conducting "old-timer" interviews and more formal historical interviews of individuals such as Irving Ladimer and Howard Andrews.[201]

Classified Documents and Privacy Concerns

DHHS did not identify or locate any classified documents in its possession relating to human radiation research. Apparently, ten years ago, the DHHS declassification officer reviewed and destroyed the great majority of classified documents in DHHS possession.

Level of Review

DHHS relied on both manual and computerized searches to locate relevant documents. Once potentially relevant documents were located, the level of review by DHHS staff was high, usually involving teams with at least one scientist or doctor involved. In addition, NIH hired a contractor with experience conducting radiation research document searches for DOE to review DHHS and component agency records at the National Archives. The contractor conducted a detailed review of a selected set of archival materials, from which some useful historical background documents were retrieved and made available to the Advisory Committee.

Using Agency Records

DHHS keeps medical records only for individuals who participated in NIH intramural research. Inquiries concerning such records should be directed in writing to the Deputy Assistant Secretary for Health/Communications, Department of Health and Human Services, Hubert Humphrey Building - Room 701H, 200 Independence Avenue, S.W., Washington, D.C. 20201.

There are four DHHS databases that may help identify potential human radiation experiments. The first is the NIH Clinical Center intramural protocol database (also called the Protocols by Institute database), which was created at the Advisory Committee's request to index information about NIH intramural research. This database was completed in February 1995 and contains over 5,000 entries for

the period 1953 through November 1994. Post-1972 information on extramural research is included in the CRISP (Computer Retrieval of Information on Scientific Projects) database, which contains records for all PHS extramural projects and for NIH and Food and Drug Administration (FDA) intramural projects. The most comprehensive database is called IMPAC and includes information on awards as far back as 1944, although not all award programs are included for their entire tenure, and the information on early awards is limited. Finally, the National Library of Medicine (NLM) is creating a database with entries for all articles written by investigators whose human radiation experiments were supported by NIH. NLM expects the database will eventually contain approximately 100,000 entries, including citations for both radiation and non-radiation research.[202]

DHHS has a contractual relationship with its contractors and grantees that limits its access to the records they create to those occasions required by agency functions. Consequently, although DHHS will help citizens identify the independent researchers and institutions that hold their medical records, it asks that the initial contact be made by the citizen. If that approach is unsuccessful, DHHS will attempt to obtain the records. Citizens are encouraged to contact DHHS to make a precise determination of whom to contact and what information to include in their inquiries.

Department of Justice

The relevant DOJ organizational unit is the Bureau of Prisons, which operates the federal prison system. Bureau of Prisons records may contain information on guidelines and policies governing the use of federal prisoners in medical research. Advisory Committee staff did not review Bureau of Prisons records, but did determine that some records are in RG 129 at the downtown National Archives. Advisory Committee staff did not determine what time period they cover or their classification status, or whether there are any relevant records in RG 129 at WNRC.

Department of Veterans Affairs

History

The Veterans Administration (VA) was created in 1930 by the consolidation of three government entities that had provided services to veterans, their dependents and survivors. VA was elevated to Cabinet level in 1988, and reestablished as the Department of Veterans Affairs (also referred to as VA) in 1989. A more detailed VA history appears in a June 1994 staff memorandum,[203] as well as in a VA brochure on the Department of Veterans Affairs, included in ACHRE accession VA-051694-A.

The VA component of greatest interest to ACHRE was the Central Advisory Committee on Radioisotopes. With its establishment in late 1947, VA set out its plan to develop radioisotope units at field facilities which would use radioisotopes for research, diagnostic and therapeutic purposes. From the initial eight units opened in 1948 the number of field radioisotope units grew rapidly through the succeeding decades.

Agency and Staff Search Processes

VA's search process was coordinated through the Office of the Secretary. VA records are maintained at the VA Central Office (VACO) in Washington, D.C., at VA medical centers throughout the country, and at the National Archives and federal records centers. In addition, ACHRE staff became aware of at least two VA researchers who maintained personal records of their research.

In early 1994, VA began its search for relevant materials within VACO but, finding few pertinent records,[204] expanded the search to its 172 field facilities. A significant part of the search therefore was conducted in the field by field staff. Veterans Health Administration (VHA) Directive 10-94-007 instructed all VA medical centers to locate and secure all responsive records but, in light of the potential volume of files and the potential burden on field staff resources, did not mandate transmittal of all records to VACO. At ACHRE's request, certain field sites transmitted all responsive records to VACO.[205] Pursuant to a subsequent VHA Directive No. 10-94-117, all field sites were instructed to identify, retrieve, and transmit to VACO copies of any and all locally developed policies and procedures for the protection of human subjects of medical research.

From the outset, the search process was hampered by the diffusion of VA records at medical centers throughout the country, as well as by the fact that much material of potential interest exists in patient files, for which blanket access is impossible.[206] In addition, both the passage of time and VA retention policies suggest that many records have been destroyed.

In mid-August 1994, VA began to retrieve some of its Central Office files from WNRC. This process, completed by the end of October, encompassed the review of 1,738 boxes and the transmittal to ACHRE of 952 responsive documents.

In October 1994, in part because of the paucity of responsive materials identified and retrieved from Suitland, VA's chief of staff requested the assistance of VA's inspector general (IG) in examining VA's records retrieval overall and locating information about VA's "confidential" Atomic Medicine Division, as well as VA's classified holdings. The IG's office conducted a review of the Suitland search and contacted several people who had worked in the Department of Medicine and Surgery who might be able to shed additional light on VA's Atomic Medicine Division and its classified files.

In addition to VA's search, Advisory Committee staff conducted independent research at the National Archives, at the Bancroft Library of the University of California at Berkeley, and at the University of California at Los Angeles.[207] Staff also reviewed a small portion of the scientific literature by VA researchers; bibliographies of pertinent publications by VA researchers are found in ACHRE accession VA-080994-B and others.

Classified Documents and Privacy Concerns

VA had original classification authority from the early 1950s until 1972, when it lost this authority due to lack of use. Although the VA IG's office attempted to locate and review any pertinent classified documents within VA's possession or control, it was unable to locate any classified records. ACHRE, however, did receive from DOD one document that had been classified by VA (and declassified at DOD's request).

Review Status

Materials in the field, for the most part, were reviewed only by field staff, often members of the Nuclear Medicine and/or Radiation Safety staff. Accordingly, no assessment can be made about the level of review at any given site, or even about the consistency or the quality of review across sites. The Advisory Committee asked that VA medical centers, in addition to searching within their facilities, also review materials transferred from those sites to their respective federal records centers; it is unclear to what extent this request was met.

VA reported at the time that; although the review of materials retrieved from WNRC was conducted largely by VA field staff (often fairly junior staff sent to Washington for this project), the review was supervised by more senior VACO staff with records management experience.

Missing Documents and Unexamined Records

Many potentially relevant materials, now held at VA medical centers throughout the country, have yet to be examined. For example, patient files have not been reviewed by VA for the most part, although VA has expressed its willingness to retrieve such files upon the request of an individual veteran.

Notwithstanding the identification and review of documents that refer to VA's "confidential" Atomic Medicine Division, the VA IG's office concluded in January 1995 that the division was never activated.[208] Classified records apparently maintained by Dr. George Lyon of that Division have not been found.

Using Agency Records

VA is continuing to look for information on human radiation experiments in its own records, and it will assist citizens in identifying nongovernment records related to their case histories. It has also published a fact sheet, *Information for Veterans Exposed to Radiation* (November 1994). Requests for information about participation in experiments may be made directly to the director of the appropriate VA medical center or to the director of the regional VA office (1-800-827-1000). The VA maintains an Ionizing Radiation Registry Examination Program for veterans who may have been exposed to the ionizing radiation while on active duty in the period 1945-1962. Information about the program may be requested in writing from: Director, Environmental Epidemiology Service (103E), Department of Veterans Affairs, 1120 20th Street, N.W., Suite 950, Washington, D.C. 20036-3406; telephone 202-606-5420. Additional information may be requested from DOD's Nuclear Test Personnel Review program (see DOD section, above).

National Aeronautics and Space Administration

History

NASA was established in 1958 as civilian space agency, incorporating the older National Advisory Committee for Aeronautics (NACA) and some facilities and programs of the Department of

Defense (DOD). NASA's major programs began in the early 1960s with Projects Mercury and Gemini, leading to Apollo and the first human moon landing in 1969.[209]

NASA briefly had an Office of Life Science Programs in 1960-1961, but after a reorganization in 1962, life sciences programs were divided among three main NASA programs: the Office of Manned Space Flight, the Office of Advanced Research and Technology, and the Office of Space Science and Applications. The Office of Manned Space Flight was responsible for astronaut selection and training, including medical screening, and for biomedical studies on the effects of space flight on astronauts, primarily through the Manned Spacecraft Center in Houston, Texas (now the Johnson Space Center). The Office of Advanced Research and Technology conducted studies of astronaut life support systems, mainly at the Ames Research Center at Moffett Field, California. The Office of Space Science and Applications played no significant role in human biomedical research.[210]

Over the years, NASA developed great internal expertise in the biomedical aspects of human space flight, but in its early years it relied heavily on contractors, grantees, and on expertise in other federal agencies. In the early 1960s for example, NASA supported a joint research program with the Atomic Energy Commission on the radiological aspects of human space flight. NASA was particularly interested in the effects on astronauts of the intense radiation of the space environment.[211] This research program included both retrospective and prospective studies of the effects of total body irradiation, conducted at the Oak Ridge Institute for Nuclear Studies; the study became the subject of congressional hearings in 1981.[212]

Space radiation is not the largest hazard of human space flight. The problems of working in an enclosed environment, with many hazardous materials, and particularly the problems of weightlessness, also occupied NASA's attention. NASA coordinated much of its early work in these areas with the Air Force and Navy, which had established programs in aerospace medicine. NASA conducted or funded a large number of experimental studies concerned with these latter problems, some of which exposed human subjects--including astronauts--to radiation and radioisotopes as tracers and for other diagnostic purposes.

A reorganization in the early 1970s began the consolidation of life science programs into the Life Sciences Programs Division of the Office of Manned Space Flight. These programs are now fully consolidated in the Office of Life and Microgravity Sciences and Applications, which is responsible for NASA's current review of records on human radiation research.

Agency and Staff Search Processes

NASA's search process was coordinated through the its Headquarters Aerospace Medicine and Occupational Health Division in the Office of Life and Microgravity Sciences and Application. Like other federal agencies, NASA maintains records in a variety of forms and locations. These include the active records of NASA's program offices, records storage facilities at NASA's field installations, and in federal records centers. NASA maintains comprehensive indexes of records transferred to internal storage facilities, federal records centers, and the National Archives, and of documents still in its active records that it intends to provide as permanent records to the National Archives. NASA also has collections of technical documents which are indexed electronically.

NASA's initial search focused on its active records and on the electronically searchable databases. The critical portion of NASA's initial search was a review of its electronic databases for technical reports

on human radiation experiments. The database searches led NASA to identify more than 2,000 publications and reports, from which 189 were selected as relevant and which proved the most valuable documentary source of information on NASA's human radiation experiments. This search uncovered most of the experiments identified by NASA, but it did not provide information on their policy context.

NASA instructed officials throughout its organization to locate all records related to human radiation experiments and requested employees, contractors, and grantees to do the same. NASA also searched for specific files--for example, records relating to the Oak Ridge studies--and identified three collections for extensive research: a Space Life Sciences Archive in Houston, a collection within NASA's History Office, and a collection of files of the former chief radiation safety officer at the Johnson Space Center. NASA conducted interviews of over 20 current and former officials, and sent a letter requesting information to all current and former NASA employees, contractors, and grantees. The interviews and responses to the letters identified some additional leads.

The Advisory Committee worked with NASA to develop a strategy for extending its search to policy-related information and to retired documents. For example, the documents NASA provided at first contained no information on ethics policies or practices before 1972, when NASA established its first comprehensive ethics policy for research involving human subjects. Subsequent research has revealed a trail of earlier policy documents in the mid- to late 1960s, although there is still no documentation in this area for NASA's earliest years. Working with SF-135s, NASA and the Advisory Committee developed a strategy for reviewing retired records at records storage centers, federal records centers, and the National Archives. NASA identified and reviewed collections at each of these facilities and provided selected documents to the Advisory Committee, which did not directly review any of NASA's record collections.

NASA did not initially provide information on the nuclear rocket program known as Rover (later NERVA, Nuclear Energy for Rocket Vehicle Applications), but when documents from Los Alamos identified one element of this program as an intentional release of radioactive materials, the Advisory Committee requested additional information on this project. NASA provided certain basic policy documents on the interagency agreement with the AEC on nuclear rocket propulsion, and a number of technical reports at the request of the Advisory Committee. Additional policy-related documents on this program were identified at Los Alamos. This is the only portion of NASA's search where any of the documentation was subject to classification, and none of the documents requested by the Advisory Committee were withheld or redacted for security reasons.

The earliest records on NASA's ethics policies on the use of human subjects in research are from 1966, documenting the formation of the Medical Use Subcommittee of the Radiological Control Committee at the Manned Spacecraft Center,[213] and the revision of the Ames Management Manual for the operation of the Human Research Experiments Review Board. NASA also provided some indications of earlier policies and practices, including references to consent procedures and radioisotope licenses at the Ames Research Center.

In 1972, NASA established an overall policy on the use of human subjects in research conducted by NASA containing approval and oversight procedures and requiring written informed consent. This policy was revised and extended to grantees and contractors in 1986. NASA provided some documents and other information describing policies and practices involving the use of human subjects prior to the establishment of these official policies, and is attempting to reconstruct this information for each experiment it identifies.[214]

Missing Documents and Unexamined Records

NASA's document review failed to uncover several documents that would have been helpful in clarifying NASA's role in human radiation experiments. Some of these documents may still reside in NASA's records collections, but they were not located in this search. Others may have been irretrievably lost or records may never have existed.

For example, the Advisory Committee had hoped to uncover documents describing the full scope of NASA's cooperation with the AEC on radiobiological research. Several pieces of evidence pointed to an interagency agreement from late 1963 or early 1964 listing roughly a dozen joint projects.[215] However, no such document was recovered in the records of NASA, the AEC, or their field installations. An earlier document was uncovered outlining the scope of cooperation but no specific projects.[216]

The Advisory Committee also hoped to uncover a more complete account of NASA's role in the Oak Ridge total body irradiation experiments. This was complicated by the fact that NASA had destroyed its administrative files on this project in 1980, in accordance with standard records retention schedules.[217] Some of these documents were located at Oak Ridge and at the Johnson Space Center, but documents used to prepare NASA's testimony at the 1981 hearings could not be located.

Perhaps most frustrating was the attempt to reconstruct documents describing NASA's early ethics policies and practices. Despite repeated requests from the Advisory Committee, NASA's search uncovered only a few documents relevant to this issue, all dating from the mid- to late 1960s. According to statements by NASA officials who were involved in these issues in the early 1960s, no earlier policy documents existed. These officials state that NASA relied on the standards of the medical profession, as formalized by the American Medical Association. The Advisory Committee would have liked to have had documentary evidence to support and explain this claim, but such documents were never discovered.

Using Agency Records

NASA's records concerning human radiation experiments are generally limited to summary reports from principal investigators and do not contain medical information on individuals, apart from the records of astronauts. Information about individual participation may be requested in writing under the Privacy Act using FOIA procedures and NASA's standard Human Radiation Exposure Log form. Inquiries should be directed to: NASA Johnson Space Center, Freedom of Information Coordinator, Public Affairs Office, Mail Code AP2, Houston, TX 77058, Attn. Director, Space & Life Science Directorate. NASA's information retrieval systems in this area are limited, and success will largely depend on the quality and detail of the information provided to NASA. NASA will refer requests for information requiring access to non-NASA records to the appropriate individual or institution.

Central Intelligence Agency

History

The Central Intelligence Agency (CIA) was established under the National Security Council by the National Security Act of 1947, as amended (50 USC 401 et seq.), and now functions under that statute, Executive Order 12333 of December 4, 1981, and other laws, regulations, and directives. The

director of central intelligence (DCI) heads both the intelligence community and the CIA and is the President's principal adviser on intelligence matters.

Although CIA was a member of the Interagency Working Group on Human Radiation Experiments and possessed documents suggesting CIA involvement with human radiation experimentation, the Advisory Committee has found no evidence to indicate that CIA actually conducted or sponsored such experiments. CIA staff were very responsive to Advisory Committee requests for information and records, and allowed Advisory Committee staff to review all related classified records.

Agency Search Process

CIA's search process was coordinated by the agency's Center for the Study of Intelligence. On January 4, 1994, the DCI ordered an agency-wide search for records bearing on any possible CIA involvement in testing for the effects of radiation. Following the President's January 17, 1994, Executive Order directing agencies to search for records on human radiation experiments, CIA established a Human Radiation Experiments Steering Group composed of representatives from all the directorates and the DCI's office to conduct the search. Director of Central Intelligence James Woolsey directed David Gries, then director of CIA's Center for the Study of Intelligence (CSI), to oversee the search, and appointed a steering group of representatives from each of CIA's directorates and from offices dealing with congressional, legal, public, and historical issues to coordinate the effort. Instructions were then issued to the records managers of each of the directorates on how to conduct the search. Mr. Gries retired in June 1994, and John Pereira became acting director of the CSI, with primary responsibility for search for records on human radiation experiments. The CIA History Staff conducted most of the substantive historical review and analysis of records related to this project. In September 1994, Brian Lattel became the new director of CSI.

The initial search process focused on whether CIA (or any other U.S. government agency) "deliberately subjected human beings to ionizing radiation, whether in tests to determine the effects of radiation on human beings or in efforts to discover operational uses for radioactive substances or their emissions."[218] The search was not limited to U.S. citizens; it also included tests on foreigners, as well as "on animals to see if human testing was also contemplated." CIA contacted dozens of former employees and other persons with knowledge about its activities. However, at this stage the agency did not search specifically for information on the 1949 Green Run experiment or other intentional releases of radiation, nor did it search for foreign intelligence information and reports that may have influenced other agencies to conduct experiments.

On April 13 1994, CIA issued a statement to the Advisory Committee that, following an electronic review of approximately 34 million documents, a manual review of 480,300 pages, and nearly 50 interviews,[219] "[n]o documents found to date suggest that CIA conducted experiments or operations using ionizing radiation on human subjects."[220] CIA acknowledged in that statement that CIA documents relating to its MKULTRA program suggested on their face that the CIA might have conducted human radiation experiments. These documents, for example, describe MKULTRA as a program "concerned with research and development of chemical, biological, and *radiological* materials capable of employment in clandestine operations to control human behavior."[221] One document states that "additional avenues to the control of human behavior" were to include "*radiation*, electroshock, various fields of psychology, sociology, and anthropology, graphology, harassment substances, and paramilitary

devices and materials."[222] Other documents discuss radiation research more specifically. However, CIA has reported that, while some human radiation experiments may have been proposed and considered, there is no evidence that any such experiments, if they occurred at all, were carried out on human subjects. In addition, on at least two occasions, CIA contract researchers conducted radiation experiments of no interest to the Agence as cover for CIA-sponsored work.

On June 16, 1994, Advisory Committee staff met with CIA representatives to discuss the agency's search process. Following that meeting, the Advisory Committee staff provided CIA with a running list of additional topics and questions that CIA may not have covered during its initial search. These topics included intentional releases, information on Soviet and other foreign activities that may have provided a threat rationale for U.S. activities such as Green Run and the human radiation experiments conducted by other agencies, ethics and human subject research practices, and additional questions about MKULTRA and related programs.

CIA Records Reviewed

Although CIA has offices around the world and elsewhere in the United States, its records are maintained in and controlled by CIA Headquarters in Langley, Virginia, and at the CIA records center, which is independent from the National Archives and the federal records centers. The main database that CIA searched was the Agency Records and Information System (ARCINS), which contains information on the holdings of most of the major components in the Agency Archives and Records Center, including subject listings down to the folder level. The following are descriptions of the record systems in each of the four directorates and the DCI's offices.

Director of Central Intelligence Area

The files under the control of the DCI are in paper from years 1947-1980, and are indexed in the ARCINS. The agency conducted a key word search of these files for topics dealing with human radiation experiments. Many of the MKULTRA files, which are held by the general counsel, were searched by hand; the agency also contacted and interviewed former staff who were involved in or had knowledge of MKULTRA projects, including Richard Helms and Sidney Gottlieb, the director of the Technical Services Division (TSD) who ran the MKULTRA programs. The agency also contacted persons on the IG staff who prepared the 1963 IG report on MKULTRA.

Directorate of Science and Technology (DS&T)

DS&T used the ARCINS and focused its search primarily on two of its offices: the Office of Technical Service (formerly the TSD that conducted MKULTRA) and the Office of Research and Development. The directorate pulled approximately 265 cubic feet of documents and completed a hand search of this material. The agency brought in two retired persons ("annuitants") with knowledge of these activities to help with search.

Directorate of Intelligence (DI)

DI has three central databases, which are computerized index systems of raw and finished intelligence reports (depending on the time frame), as well as two hard copy indices. The former are queried by subject categories, area codes, or key words. The documents themselves (not merely folder titles) are indexed. The initial search was for any records relating to ionizing radiation experiments on humans. In those instances where there was no keyword capability, broad subject codes were linked with the United States, so that a document referring solely to foreign activities would not have surfaced. (Soviet atomic bomb developments were not the subject of the initial request.) DI also searched for records archived by the former Office of Scientific Intelligence using ARCINS for topics dealing with human radiation experiments. Approximately 46,600 pages were reviewed, but no responsive documents were located.

Directorate of Administration (DA)

The majority of DA's files are indexed by name. However, DA conducted a directorate-wide search for subject files and records based on the broadest usage of the term "radiation." No records were found in DA offices that were responsive to the search criteria provided by ACHRE. The records searches conducted within the Office of Security resulted in a complete review of 20 feet of records. The initial search did not include references to Soviet testing, because relevant key words were not available at the time, but reviewers subsequently reported that they did not recall any mention of Soviets or Soviet testing in the materials reviewed.

Directorate of Operations (DO)

DO has an automated index system that contains subject files and personality files. They did a keyword search that resulted in 20 feet (approximately 29,000 pages) of listings. All of those were searched, and no records concerning to human radiation testing were found.

CIA and Human Radiation Experiments

The Advisory Committee attempted to probe every known reference that might suggest CIA involvement in human radiation experiments purportedly conducted by it or any other agency.[223] The staff made over 30 requests for information and records in pursuit of potential leads. CIA responded by assembling all potentially relevant documents that it could find, almost all of which were classified. In total, the staff reviewed well over 100 such documents that described, or helped to explain, the public references to radiation research activities. No evidence was found among the public or classified records to contradict CIA's conclusion that it did not engage in human radiation experiments. Nevertheless, the Advisory Committee requested that CIA declassify all of the assembled documents so that the public could review this material and verify the conclusions of the Advisory Committee.

To date, CIA has declassified most of the requested records, releasing new records and more fully disclosing previously partially declassified records about MKULTRA and other activities that have never before been seen in public.[224] In addition, CIA's History Staff prepared a "memorandum for the record"

that serves to answer many of the questions posed by the Advisory Committee on CIA related activities.[225]

MKULTRA and Related Programs

In the 1950s and 1960s, CIA engaged in an extensive program of human experimentation, using drugs, psychological tests, and other means, in search of techniques to control human behavior. These activities were principally part of a program known as MKULTRA, but were also part of a number of other related programs. Documents from MKULTRA and several of the other programs make reference to the use of radiation as part of their research efforts. In addition, at least one CIA officer attended DOD meetings in the early 1950s at which human radiation experiments were discussed in conjunction with atomic bomb testing.

CIA's human behavior control program was motivated by perceived Soviet, Chinese, and North Korean use of mind control techniques. The CIA program originated in 1950 under the name BLUEBIRD, which then changed its name to ARTICHOKE in 1951. MKULTRA formally began in April 1953 as a special, clandestine funding mechanism for all human behavior research. MKULTRA itself was technically closed in 1964, but some of its work continued under project MKSEARCH into the early 1970s. It was run by the Technical Services Staff (TSS, also known as the Technical Services Division or TSD) for potential use in espionage and covert action. It was the subject of major investigations by the presidentially appointed Rockefeller Commission in 1975, the Senate Church Committee[226] and House Pike Committee in 1976, and hearings chaired by Senator Edward Kennedy in 1975 and 1977. Among the many experiments, the best known involved LSD testing and brainwashing.

Unfortunately, most of the MKULTRA records were deliberately destroyed in 1973 by the order of then-DCI Richard Helms.[227] Helms testified that he agreed to destroy the records because "there had been relationships with outsiders in government agencies and other organizations and that these would be sensitive in this kind of a thing but that since the program was over and finished and done with, we thought we would just get rid of the files as well, so that anybody who assisted us in the past would not be subject to follow-up questions, embarrassment, if you will." The Church Committee found some records when it investigated the program in 1976, but also noted that the practice of MKULTRA at the time was "to maintain no records of the planning and approval of test programs."[228]

Throughout the course of MKULTRA, CIA sponsored numerous experiments on unwitting humans. After the death of one such individual in 1953,[229] an internal CIA investigation warned about the dangers of such experimentation. CIA persisted in this practice for at least the next ten years. After a 1963 report by the CIA's inspector general[230] recommended termination of unwitting testing, Deputy Director for Plans Richard Helms (who later became DCI) continued to advocate covert testing on the ground that "positive operational capability to use drugs is diminishing, owing to a lack of realistic testing. With increasing knowledge of the state of the art, we are less capable of staying up with the Soviet advances in this field."[231] The Church Committee noted that "Helms attributed the cessation of the unwitting testing to the high risk of embarrassment to the Agency as well as the 'moral problem.' He noted that no better covert situation had been devised than that which had been used, and that 'we have no answer to the moral issue.'"[232]

The 1963 IG report states that the MKULTRA testing programs were "conducted under accepted scientific procedures . . . where health permits, test subjects are voluntary participants in the programs."[233]

However, the Church Committee noted that "[t]his was clearly not true in the project involving the surreptitious administration of LSD, which was marked by a complete lack of screening, medical supervision, opportunity to observe, or medical or psychological follow-up. The intelligence agencies allowed individual researchers to design their project. Experiments sponsored by these researchers . . . call into question the decision by the agencies not to fix guidelines for the experiments."[234]

In response to a Freedom of Information Act (FOIA) request in 1977, CIA came upon additional MKULTRA records in financial files held by the Office of Technical Services, files that had not been indexed under the name MKULTRA (if they had been, they would likely have been destroyed in 1973).[235] These documents were the subject of 1977 hearings by Senator Kennedy[236] and a 1979 book by John Marks titled, *The Search for the Manchurian Candidate*. These records list a total of 149 MKULTRA subprojects, some of which involved human testing.[237] Most of these records were declassified and released by CIA in the late 1970s under the FOIA, and are available for public review at the National Security Archive in Washington, D.C.;[238] many of those documents, however, contained deletions of information that was still deemed classified at the time.

The 1963 CIA Inspector General investigation report on MKULTRA states that the program "concerned with research and development of chemical, biological, and *radiological* materials capable of employment in clandestine operations to control human behavior," and that "radiation" was one of the "additional avenues to the control of human behavior."[239] CIA was unable to determine with certainty why these references to radiation appear in the report. CIA interviewed a number of CIA officials familiar with MKULTRA and the IG investigation, none of whom had any recollection of radiation experiments. (ACHRE staff talked with some of these individuals as well.) The CIA History Staff memo states that "[i]t seems likely that the IG inspectors took the radiation reference from mission documents they found in the MKULTRA files in 1963," in which, as early as 1951, the Chemical Branch of the TSD, which ran the MKULTRA program, was given primary responsibility for research and development in the field of biological, chemical, and radiological warfare.[240]

Advisory Committee staff and CIA found a number of references to radiation in the extant documents on the 149 MKULTRA subprojects. In subproject 35, CIA secretly provided $375,000 for a new wing at Georgetown University Hospital in the 1950s so that it could be used for MKULTRA research in biological and chemical programs. Dr. Charles F. Geschickter, a Georgetown doctor who did cancer research and experimented with radiation therapy, provided cover for the CIA financing through his Geschickter Fund for Medical Research.[241] Geschickter himself testified before Congress in 1977 that the CIA money helped fund his radioisotope lab and equipment.[242] There is no evidence, however, that the Agency planned, sponsored, or was otherwise interested in this radiation research.

In subproject 86, Dr. Wallace Chan received CIA funds for research on polygraph machines and other means of establishing the veracity of agents. In an undated memorandum for the record, Dr. Chan proposed "[a]rtificial means of establishing positive identification" (known as covert marking) involving ionizing radiation:

1. Radio-isotopes, with predetermined half lives, can be selectively implanted and/or injected.
2. Radiologically opaque foreign bodies selectively implanted and/or injected into predetermined sites in the human body.[243]

CIA reported that "[t]he MKULTRA files mention nothing more about marking agents with radioactive materials, and this specific suggestion does not seem to have been further explored."[244]

There are several other references to covert marking in the context of MKULTRA, although they do not involve radiation. Dr. James Hamilton was a CIA consultant under subproject 140 (which became MKSEARCH subproject 3). Part of his research involved "covert marking systems." Dr. Hamilton informed Advisory Committee staff that his research into this area involved the use of fluorescent material, not radiation. CIA channeled its funds to Hamilton through the Geschickter Foundation. In 1977, Dr. Geschickter testified about this technique as well. "We had trouble with the Vietnamese switching from our side to the other side at night, and the Army had a way of labeling switchcoats or turncoats, so we helped them to develop a suspension of material related to pheno-phthalms, when we would give them their health shots or anticholeral vaccine, they could inject this flourescent material. It is invisible except under ultraviolet light. I have it in my arm."[245] The CIA has informed the Advisory Committee that Dr. Geschickter's testimony confuses two different programs, and that the marking program deployed in Vietnam--known as MPBLOTCH, in which a chemical compound was sprayed on the hands of suspicious Vietnamese and would glow under ultraviolet light where the skin had recently touched metal to detect whether they were handling weapons for the Vietcong--was not related to the research conducted under MKULTRA.[246]

Also under subproject 140, CIA provided Dr. Hamilton funds to set up and operate a so-called "sleeper laboratory," whereby he could do his own research but would be available to do research for CIA at the agency's request. Dr. Hamilton informed the Advisory Committee that he used the funds to set up a lab in the Vacaville California Prison Medical Facility to do research on prisoners. He stated that the prisoners were paid and were informed about what he was doing. A March 30, 1965, letter from Hamilton to the Geschickter Foundation, which served as the funding "cut-out" between the CIA and its contractor, states that "[w]e are now conducting a new series of experiments on 100 prisoner-subjects, in which radio-active iodine uptake of the thyroid and T-4 uptake of red cells, and several other measures which we have developed, are being related to previously studied variables."[247] Hamilton performed this work as part of his own research on the effects of the thyroid on postpartum depression. In contrast to the description in the 1965 document, Dr. Hamilton told the Advisory Committee and CIA officials in 1995 that he had no recollection of ever having done experiments on prisoners involving radiation, and said that he thought he would have remembered using the technology necessary to do such a study, but does not. Hamilton stated further that CIA never in fact utilized the laboratory before it was shut down.

BLUEBIRD/ARTICHOKE documents also make reference to ionizing radiation. As the CIA History Staff Memo describes, an undated outline of ARTICHOKE research lists "radiation" among the "other fields" that "have been explored" in addition to the CIA's primary focus on hypnosis, chemicals, and psychiatry.[248] One card file from the ARTICHOKE records on "Radiant Energy" speculates on the possibility of a hypothetical "sleep ray", and states that "it is possible that some newer field of radiant energy, some atomic particles, could be aimed at sleep centers in the brain, or at brain centers that inhibit the waking state. Sudden sleeping might be produced in this way, with an unwitting subject if the apparatus were worked from another room."[249] This proposal was rejected by an expert from the Armed Forces Institute of Pathology, who stated that "he doubted that any such approach, as by ultrasonics or other radiant energy, would ever by possible."[250] Another card file on "Tracer Techniques" noted that the Massachusetts General Hospital had developed a technique "for the tracing of radio-active material throughout the human body and particularly in the brain . . . . Along these lines, several of our most important consultants have constantly urged exploration of the tracer techniques as a method of advancing ARTICHOKE studies."[251]

Subsequently, MKULTRA subprojects 17 and 46 involved the use of radioisotope tracers to study the metabolism of LSD in laboratory animals.[252] Although the CIA did experiment with LSD on humans, the Advisory Committee could find no evidence to indicate that such tagged LSD was ever used.

CIA and Army Drug Testing

CIA and the Army often collaborated in conducting LSD and other chemical experiments in the 1950s, 1960s, and 1970s.[253] Most the Army research was conducted at Fort Detrick and at the Edgewood Arsenal Research Laboratories (EARL), both in Maryland. One of the Army's major contractors in performing this research was Dr. Albert Kligman from the University of Pennsylvania. Some of the research performed by Kligman for EARL included prisoners from the Holmesburg Prison in Pennsylvania. Some of Dr. Kligman's research for the Army apparently involved the use of radioisotopes, including on the Holmesburg prisoners.[254] In the mid-1960s, Dr. Kligman founded the Ivy Research Laboratories, which performed EARL contracts in place of the University of Pennsylvania. In 1971, CIA provided $37,000 to EARL to test a glycolate compound known as EA 3167, a potentially incapacitating psychochemical agent, on human volunteers, including Holmesburg prisoners. (The Army had previously tested this compound on humans.) An additional objective of the CIA was to synthesize radiolabeled EA 3167 for research purposes.

The CIA contract with EARL was terminated in 1973, but the record is ambiguous as to whether the CIA-sponsored human subject testing ever took place.[255] A January 1975 memo from the CIA Office of Inspector General suggests that 20 volunteers were tested and that post-test follow-up observations and examinations were conducted. This document also states that the protocol used for enlisting volunteers was "analogous" to those used by Ivy Research Laboratories.[256] In February 1975, however, CIA officials interviewed the EARL officer who oversaw the CIA contract, who stated that he "was positive that no work on human subjects was performed under the contract with the Agency." He also stated that the radiolabeled EA 3167 was never used prior to the termination of the CIA contract in 1973.[257]

CIA Connections to DOD and AEC Human Radiation Experiments

As described in the final report of the Advisory Committee, DOD was extensively involved in planning and conducting human radiation experiments in the context of its nuclear weapons program. In the late 1940s and early 1950s, much of DOD planning occurred in DOD's Research and Development Board (RDB) and its various committees and panels. The Committee on Medical Sciences, for example, helped to formulate the policy that led to Secretary of Defense Wilson's issuance of the memorandum implementing the Nuremberg Code in 1953. The Joint Panel on the Medical Aspects of Atomic Warfare helped establish DOD's radiation research agenda. Records obtained from DOD and the National Archives show that CIA was represented at at least eight of the meetings of the Committee on Medical Sciences.[258] Dr. Clark Yeager, Chief of the Medical Division of CIA's Office of Scientific Intelligence, attended a 1952 meeting in which the ethics of human radiation experimentation were discussed among other topics; Dr. Yeager also advised the ARTICHOKE program about foreign brainwashing research. CIA has found no records in its files about these meetings, and has surmised that the lack of any record indicates minimal interest by CIA officials in the radiation testing activities of DOD at that time.

CIA did perform research on radiological warfare (RW) and collected intelligence on RW activities of the Soviet Union. In the early 1950s, CIA proposed to DOD and AEC the development of a small-scale radiological weapon for use in unconventional warfare by guerrilla groups. The project was never adopted.[259] In addition, the principle mission of CIA throughout the Cold War was to monitor Soviet military developments, particularly its atomic weapons program. Moreover, CIA chaired the Joint Atomic Energy Intelligence Committee, which was the principal government body responsible for monitoring the Soviet nuclear weapons program. CIA concluded as early as 1953 that the Soviet Union was not likely to develop radiological weapons.[260]

On a number of occasions, CIA has collaborated with nuclear research laboratories of AEC and DOE. For example, publicly available documents refer to a 1965 memorandum of understanding (MOU) between CIA and Lawrence Livermore Laboratory. CIA has reported that a "search of its own files on dealings with U.S. government nuclear labs found no evidence that CIA sponsored human radiation experiments."[261] DOE's February 1995 report on human radiation experiments did not find any involvement by CIA in the three reported experiments performed at Livermore.[262] Advisory Committee staff reviewed the 1965 MOU and other classified documents relating to the relationship between CIA and Livermore and found no evidence of human radiation experiments.[263]

Publicly available information indicated that several individuals who were actively involved in human radiation experiments activities for DOD and AEC may have also performed work for CIA. *The Search for the Manchurian Candidate*, for example, notes that Harold Hodge from the University of Rochester received CIA funding for LSD research , and that "Hodge's group found a way to put a radioactive marker into LSD."[264] (As noted above, this tagged LSD was apparently used on laboratory animals; there is no evidence that it was used on humans.) Hodge also directed Manhattan Project work at Rochester on the toxicology of uranium.[265] In another example, Dr. Robley Evans is noted in a CIA summary provided to the Advisory Committee as having "enjoyed a long history as a TSS/TSD consultant on radiation safety, radiation detection, and the use of trace radioactivity" in communication activities.[266] Evans was a professor at MIT who was involved in human radiation experiments for AEC, DOD, and other agencies.[267] When queried in 1994 about his activities, CIA reported that Evans replied that "he had never been contacted regarding any human subject radiation effects testing on behalf of CIA, further that no CIA money had ever been spent on any such testing either by him or by anyone else of which he was aware."[268] CIA has searched its records for a list of names provided by the Advisory Committee and reported that it found no evidence that any of them were involved in human radiation experiments on behalf of the agency, even if some of them may have performed other work for the agency. Although CIA has refused, so far, to confirm or deny in public whether any particular individual had a relationship with the agency, aside from Dr. Evans, Advisory Committee staff reviewed classified records that supported CIA's conclusions.

Advisory Committee Witnesses

At the March 1995 meeting of the Advisory Committee, three witnesses testified that they had been the subjects of CIA experiments under MKULTRA involving radiation. These witnesses provided no documentation to substantiate their claims. Their testimony referred to well-known names and activities associated with MKULTRA. The Advisory Committee requested that CIA search its records for

any information on the witnesses. CIA has reported that it found no records about those individuals or the particular experiences that they described.

Using Agency Records

CIA has no special facilities for handling requests concerning human radiation experiments nor any information resources specifically concerned with them. Privacy Act and Freedom of Information Act requests should be filed in the usual ways. CIA is not prepared to facilitate the identification or the retrieval of nongovernment records that may be associated with government activities. Requests should be addressed in writing to: Information and Privacy Coordinator, CIA, Washington, D.C. 20505.

Nuclear Regulatory Commission

History

The Atomic Energy Commission was succeeded in 1974 by the Energy Research and Development Administration (ERDA)[269] and the Nuclear Regulatory Commission (NRC). While ERDA took over AEC's research and weapons development activities, NRC took over its responsibilities for licensing the use of radioactive materials and for establishing and enforcing standards for its safe handling and storage. NRC maintains some administrative records at its headquarters in Rockville, Maryland, but the bulk of its records is kept at its warehouse in Columbia, Maryland, and at WNRC. Additionally, Oak Ridge National Laboratory (ORNL), a DOE facility, acts as NRC's records management contractor for specific projects, as discussed below. NRC divides its records into license and institutional series, and ORNL maintains a substantive electronic database describing the collections. The license files are essentially docket files and include the license application and related correspondence. The application is rarely accompanied by the protocol for the proposed experiment or other activity.

The records of particular licensees are not necessarily continuous, however, because AEC established what is called the "agreement state program" in 1962. An agreement state is one that has established an agreement with NRC to take over some of the NRC's regulatory activities within its own borders and, as a consequence, it also takes over NRC's record-keeping function. As a result, NRC does not have records for the licenses in effect at the time of an agreement after the date of the agreement, nor does it have any information on licenses subsequently granted by the state. Kentucky was the first agreement state in March 1962, and at the present time there are 29 such states, including ones of significance to the Advisory Committee in the relevant period--California (1962), New York (1962), Tennessee (1965), Washington (1966).

Agency Search Processes

NRC's search process was coordinated through the Office of Nuclear Materials Safety and Safeguards. NRC began looking for HRE records in early January 1994, prior to the Cabinet directive and indeed prior to the establishment of the Advisory Committee on January 15, 1994. Initially, NRC's five regional administrators were requested to "select the specific licensees meeting the following criteria and review the license files in their entirety, starting with the earliest available records."[270] The applicable

criteria included licenses for military research, military hospitals or medical centers, land grant universities and colleges, VA hospitals, and other public and private medical research or teaching facilities. The agreement states were similarly contacted on January 10, 1994.

In reporting on this effort a few weeks later,[271] NRC staff commented that

> A better picture of the human research studies might be achieved by a systematic search of the archived files. However, this would be a very resource-intensive review because the files are in multiple locations and manual searches are needed and may only duplicate the Department of Energy's (DOE's) ongoing review efforts. The archived files are stored in boxes that contain commingled medical, human use, and industrial research and development license files. Before 1965, there were 10,674 docket files/general license files and folders. From 1965 to 1985, there were over 20,000 active byproduct materials license and inspection files.

However, at about this same time NRC was contracting with ORNL to review the pre-1965 files to identify sites with potential residual radioactivity problems. NRC subsequently decided also to ask ORNL to identify during its review what were termed "non-routine human uses" of radioactive materials. As of April 1995, 90 percent of the relevant licenses had been reviewed and 279 "non-routine" uses had been identified, analyzed, and abstracted. In addition, instances of non-routine human uses were identified and analyzed in detail for 22 institutions. Not all the uses analyzed in the project were from the pre-1965 time period. The review and analysis are to be completed in 1995.

Staff Search Processes

Advisory Committee staff did not know in the spring of 1994 that NRC had initiated this search process, but they were aware that NRC was a potential source of pertinent records. Miscommunication between the Advisory Committee and the Department of Energy (which was initially responsible for communicating with the NRC) led staff to believe that a search of NRC records had not turned up relevant materials, whereas in fact the search had only just begun. In November 1994, staff decided to clarify the situation and contacted the NRC directly. As a result of this contact, the Advisory Committee requested that NRC establish a direct relationship with the Advisory Committee, which was formally agreed by the chairman and commissioners in January 1995.

Although Advisory Committee staff had originally thought that an on-site review at Oak Ridge was appropriate, the late date at which access was granted precluded this. Various records were examined at the NRC's Maryland offices, however, and the records database and contractor's reports were used to identify specific license records for more thorough review.

Review Status

The body of information contained in NRC license files is important to identifying human radiation experiments, but it should be noted that the use of isotopes under an AEC or NRC license is not prima facie evidence that the activity was federally sponsored within the meaning of the Advisory Committee's charter. AEC's isotope distribution program did much to make the scientific and medical communities aware of the potential of ionizing radiation. In essence, and apart from a small number of

institutions with their own reactors, anyone doing such radioisotope research needed AEC/NRC materials. As a result, the NRC records of that activity are an important key to the state of activity and understanding in the period. It is thus unfortunate that the Advisory Committee was unable to perform the sort of in-depth review that NRC holdings appear to merit. Nevertheless, the analytical review performed by ORNL under contract to the NRC, and the records management database that ORNL built in the process of that review, should prove valuable to citizens and researchers alike.[272]

Missing Documents and Unexamined Records

The most fugitive records desired by the Advisory Committee are the papers of the isotope distribution program sponsored by the Atomic Energy Commission from 1946 to 1955 or 1956, when that program was succeeded by the more formal isotope licensing program. The Advisory Committee has not been able to find a repository of those records, but NRC's license files apparently contain what now exists. Some of the license records contain information and documents from the earlier period, and our conclusion is that at some point (when and under what circumstances are unknown) some records, for some institutions that participated in the distribution program and later held licenses, were brought forward into the license records, and the remainder were discarded. The criteria used to determine which types of records and which institutions' records were preserved were not obvious.

Advisory Committee staff were able to begin analyzing NRC records only in February 1995, by which time less than half of the pre-1965 records had been examined by NRC's contractor. Consequently, apart from identifying some specific licenses that represented experiments of research interest, the NRC collections were not deeply examined.

Using Agency Records

Although NRC and its predecessor, the regulatory division of AEC, did not conduct or sponsor human radiation experiments, their license files do contain some relevant information about the purposes to which they were put, human radiation experiments among them. AEC and NRC records do not contain names or other identifying information about the subjects of such experiments, and only rarely do they contain detailed information about the experiments themselves. NRC also collects information about occupational exposures, medical misadministrations, and other cases of overexposure. This information is available to the public, subject to the restrictions of the Privacy Act and FOIA. Citizens may request agency documents under the Freedom of Information Act or the Privacy Act by writing to: Director, Division of Freedom of Information and Publication Services, Office of Administration, Nuclear Regulatory Commission, Washington, D.C. 20555-0001. The agency will search agency records, if requested to do so, and can search license files by institution. The agency is unable, however, to help citizens retrieve records not in its possession.

LEGISLATIVE BRANCH RECORDS

Advisory Committee staff identified and examined all relevant legislative branch records. The most important of these were the records of the Joint Committee on Atomic Energy (JCAE) in RG 128 at

the National Archives. JCAE, established under the Atomic Energy Act of 1946, had general oversight jurisdiction over AEC. When AEC was replaced by ERDA in 1974, JCAE was abolished.

The JCAE records in RG 128 are broken down into unclassified subject files, classified subject files, unclassified hearings, and classified hearings. There was no review of the unclassified subject files. Some of the unclassified hearings were examined. Only a small portion of the classified subject files and hearings has been declassified over the years. These portions, as well as selected still-classified files and hearings, were reviewed by Advisory Committee staff.

Advisory Committee staff used the *U.S. Congressional Committee Hearings Index* and *U.S. Serial Set Index* to determine other committees' relevant post-World War II hearings, reports, and other documents of relevance. These were then examined by Advisory Committee staff.[273]

OTHER FEDERAL SOURCES

Congress

A number of congressional offices provided the Advisory Committee with important information. Chief among these was Congressman Markey's office, which provided access to the supporting documents for the human radiation experiments described in the report of the congressman's 1986 hearings.[274] Senator John Glenn, the offices of the House Committees on the Judiciary and on Veterans Affairs, the offices of the Senate Committees on Environment and Public Works and on Government Affairs, and the General Accounting Office also provided information and documents.

The Advisory Committee made a concerted effort to obtain copies of important congressional hearings and reports, but this was often difficult because many were out of print or, as discovered in several cases, existed in permanent draft form and would never be published. The staff of several committees cooperated in ACHRE's effort to assemble this collection.

Descriptions of the materials acquired from congressional offices were added to the Research Document Collection and are listed in Appendix B. The hearings and reports that were obtained were copied and the copies added to the ACHRE Publications Collection (ACHRE Research Collection Series, Library File, Congressional Hearings and Reports). For a listing of these materials, see Appendix C, entries beginning "U.S. Congress."

Environmental Protection Agency

EPA conducted topical searches of environmental impact statements through its data bases and responded to requests for information on current ethical policies and practices in connection with the Advisory Committee studies of intentional releases and current government guidelines on human experimentation. Descriptions of the materials acquired from EPA may be found in Appendix B.

Other Agencies

The following agencies supplied information about current guidelines on human experimentation: Agency for International Development, Consumer Product Safety Commission, Department of Agriculture, Department of Education, Department of the Interior, Department of Transportation, the

National Science Foundation, and the Smithsonian Institution. Descriptions of the materials aquired from these agencies may be found in Appendix B.

Bio-Sciences Information Exchange

One of the more intriguing but frustrating discoveries made by Advisory Committee staff was the fact that government agencies formerly registered descriptions of research projects performed or sponsored by the federal government with an office of the Smithsonian Institution, variously called the Scientific Information Exchange or the Bio-Sciences Information Exchange. This group, established at the recommendation of and advised by the National Research Council, collected abstracts of research in progress reports for the period 1949-1979. The Department of Commerce's National Technical Information Service began a similar program two years later.

The abstracts submitted to the exchange were collected in annual reports and are available on microfiche in the Smithsonian Institution archives. Unfortunately, the indices to the reports are available only on magnetic tape in a 1970s mainframe format that Smithsonian technologists are presently unable to read. For that reason, Advisory Committee staff did not review the exchange's records.

ENDNOTES

1. Certain records of the judicial branch (e.g., court files) containing oral and documentary evidence in individual cases can be excellent sources of information. The number of cases in federal courts involving human radiation experiments has been extremely small over the years, however; for that reason, this discussion does not address judicial branch records.

2. Advisory Committee staff did not examine records at any presidential library because of the very low probability of finding pertinent information. The Department of Energy did examine some collections at the Eisenhower and Truman libraries, but found nothing. Consequently, there will not be any detailed discussion of presidential libraries.

3. The term "unclassified" as used in this and the following sections means both individual documents and collections of records that were determined when originally generated not to contain National Security Information (NSI) or Restricted Data (RD) pursuant to the relevant Executive Order or Atomic Energy Act, respectively, and thus should be available for public review. "Classified" means (1) in the case of individual documents that they were determined to contain NSI or RD when originally created and continue to do so, or (2) in the case of a collection of records, that at least one document therein still contains NSI and/or RD. Such individual documents and collections can only be examined by those with the proper security clearances. "Declassified" means (1) in the case of individual documents that they were originally determined to contain NSI or RD when originally generated, but that they have been reviewed by governmental authorities and deemed no longer to contain such information, or that the portions that still do have been excised (or "redacted"), or (2) in the case of a collection of records, that at least one document therein formerly contained NSI and/or RD, but either any and all such documents have been reviewed by governmental authorities and deemed no longer to contain such information, or the portions that still do have been excised. Such individual documents and collections may be made available for public examination.

4. There are, in addition, classified versions of some of these types of publications. Specific ones of interest will be discussed in the following section on agency searches.

5. See 44 USC §2107 and 36 CFR §1228.180, et seq.

6. There are three National Archives facilities in the Washington, D.C., area: the main one in downtown Washington, D.C.; one in Suitland, Maryland; and a new one in College Park, Maryland. By the end of 1995, most of the records housed at the downtown location and all of the records at Suitland will have been transferred to the College Park facility. All three hold classified records. There are 12 regional facilities around the country, of which only a few have the capacity to hold classified records; for a list of these regional National Archives, see the appendix *A Citizen's Guide to the Nation's Archives* in the final report.

7. Records in the quantity accumulated by the federal government are not described in terms of the number of documents they contain but, rather, in terms of the storage space they occupy, which is measured in terms of *feet*, either linear (for shelving) or cubic (for containers). Where records are described in terms of *pages* this also does not refer to documents (which can have one or many pages) but is again a reference to physical volume, albeit less precise.

8. Finding aids are available in the offices of the archivists who work with a record group and who are available to assist researchers wanting to use the records.

9. The National Archives has estimated that it has approximately 325 million pages of classified records, and it receives additional classified records all the time. Executive Order 12937, signed by President Clinton on November 11, 1994, declassified approximately 43 million pages in selected record groups at the National Archives, still leaving over 280 million pages of classified records. Executive Order 12958 of April 1995, "Classified National Security Information," may also result in bulk declassification of additional large volumes of older records.

10. See 36 CFR §1228.150.

11. The only federal records center in the Washington, D.C., area is the Washington National Records Center (WNRC) in Suitland, Maryland. It does hold classified records. There are 12 regional federal records centers, usually co-located with the regional branch of the National Archives. Only a few of these have the capacity to hold classified records. For a list of these regional federal records centers, see the appendix *A Citizen's Guide to*

the Nation's Archives in the final report.

12. Understanding the significance of accession numbers as they are used at federal records centers is of tremendous importance because they are essential to discussing, locating, and using any records at a federal records center. All accession numbers have three parts, e.g. 330-68-0015. The first three numbers indicate the *record group* (in this case Record Group 330, which contains the records of the Office of the Secretary of Defense). The second two numbers represent the year in which the records were shipped. The last set of numbers is the ordinal number of the shipment by the agency in that year.

13. See, e.g., 36 CFR §1228.152, which sets forth the requirements for information to be included in a SF-135 by an agency. 36 CFR §1228.1, et seq. govern the preparation of *records retention and disposition schedules* by the agencies and the National Archives and Records Administration, and the appraising or scheduling of agency records. Generally, records are appraised or scheduled as either permanent (i.e., to be retained permanently and ultimately transferred to the National Archives) or temporary (i.e., to be retained for some set period of time and thereafter destroyed). For several reasons, including lack of resources, there are often large bodies of records that are not appraised or scheduled at all.

14. Most, but not all, agencies also keep copies of the SF-135s in their records management offices. These offices generally have the responsibility for the maintenance, storage, shipment, and destruction of an agency's records.

15. House Rule XXXVI (adopted in 1989).

16. Senate Resolution 474 (adopted in 1980).

17. Ibid.

18. It should be noted that of the limited number of Advisory Committee staff, only a few were available to spend any considerable amount of time locating pertinent records and actually reviewing them. Several staff members received security clearances in late 1994, permitting them to review some of the many classified collections of the Department of Defense and Department of Energy. Staff without clearances continued attempting to locate relevant records and examining unclassified and declassified collections.

19. For a more detailed review of the organizational history, especially of the laboratory sites around the nation, see *Human Radiation Experiments: The Department of Energy Roadmap to the Story and the Records* (U.S. Department of Energy, February 1995).

20. The members were Dr. Stafford Warren (chairman), Dr. Hymer Friedell, Dr. Louis Hempelman, Dr. John Wirth, Dr. Andrew Dowdy, Dr. Raymond Zirkle, Dr. G. Failla, Dr. Robert Stone, and Dr. James Sterner. *Manhattan District History - Book 1 - General, Vol. 7 - Medical Program*, dated December 31, 1946. ACHRE NARA-052495-A

21. The members were Dr. Lee DuBridge (chairman), Dr. Merle Tuve, Dr. Linus Pauling, Dr. Vincent du Vigneaud, Dr. Raymond Zirkle, Dr. Albert Hastings, Dr. Cecil Watson, Dr. Cornelius Rhoads, Dr. Zay Jeffries, and Dr. Leon Curtiss. See, e.g., the press release entitled "Atomic Energy Commission Appoints New Committee on Isotope Distribution", dated January 12, 1948. ACHRE NARA-122994-B

22. The initial members were Dr. J. Robert Oppenheimer (chairman), Dr. James Conant, Dr. Lee DuBridge, Dr. Enrico Fermi, Dr. Isador Rabi, Hartly Rowe, Dr. Glenn Seaborg, Dr. Cyril Smith, and Hood Worthington. Sen. Doc. No. 118, 80th Cong., 2nd Sess.43 (1948). ACHRE NARA-072095-A

23. Brig. Gen. James McCormack, USA, Director of Military Application, to Principal Staff and Managers of Operations, November 23, 1948 ("Functional Organization Chart"). ACHRE NARA-072095-A

24. See, e.g., *University of Chicago Toxicity Laboratory Quarterly Progress Report 2 on Radiobiology*, dated July 15, 1949. ACHRE NARA-042295-A

25. David Shaw, Assistant General Manager for Manufacturing, to K.E. Fields, General Manager, August 20, 1956 ("Fallout Studies"). ACHRE NARA-091494-A

26. The members were Dr. Stafford Warren (chairman), Dr. R. Stone, Dr. G. Failla, Dr. J. Wirth, Dr. H. Friedell, Dr. R. Zirkle, Dr. J. Sterner, Dr. A. Dowdy, Dr. A. Brues, Dr. L. Hempelman, Dr. J. Hamilton, Dr. A. Hollander, Dr. S. Cantrill, Dr. J. Svirbely, Dr. L. Donaldson, Dr. J. Nolan, Dr. B. Vosburgh, Dr. B. Wolf, and Dr. K. Morgan. *Report of the 23-24 January 1947 Meeting of the Interim Medical Committee of the Atomic Energy Commission*. ACHRE NARA-010495-B

27. The members of the Medical Board of Review were Dr. Robert Loeb, Dr. Detlev Bronk, Dr. Wallace Fenn, Dr. Herbert Gasser, Dr. Ernest Goodpasture, Dr. Alan Gregg, and Dr. A. Baird Hastings. *Report of Medical Board of Review,* dated June 20, 1947. ACHRE NARA-010495-B

28. The initial ACBM members were Dr. Alan Gregg (chairman), Dr. G. W. Beadle, Dr. Detlev Bronk, Dr. Ernest Goodpasture, Dr. Baird Hastings, Dr. E. G. Stakman, and Dr. Joseph Wearn. The first Director of DBM was Dr. Shields Warren. Sen. Doc. No. 118, 80th Cong., 2nd Sess. 42, 44 (1948). ACHRE NARA-072095-A

29. The initial members of the Advisory Committee on Isotope Distribution were Dr. G. Failla (chairman), Dr. H. A. Barker, Dr. Henry Borsook, Dr. Robley Evans, Dr. Hymer Friedell, Dr. Joseph Hamilton, Dr. Joseph Kennedy, Dr. Robert Mehl, Dr. Paul Aebersold, Dr. Austin Brues, Dr. A. H. Holland, Jr., and Dr. L. N. Nims. The initial members of the Subcommittee on Human Applications were Dr. G. Failla, Dr. H. Friedell, Dr. J. Hamilton, and Dr. A. Holland. Sen. Doc. No. 118, 80th Cong., 2nd Sess. 44 (1948). ACHRE NARA-072095-A

30. The initial members of the newly-designated committee were Dr. Wallace Armstrong, Dr. Reynolds Brown, Dr. Donald Childs, Jr., Dr. John Cooper, Dr. George LeRoy, Dr. Edith Quimby, and Dr. Rulon Rawson. Atomic Energy Commission, *Annual Report to Congress of the Atomic Energy Commission for 1959* (Washington, D.C.: GPO, January 1960), 391-392. ACHRE NARA-072095-A

31. For an explanation of the various records management terms used in this and the parallel sections for the other agencies--terms such as "record group", "accession", and "SF-135"--see the discussions of the National Archives and of federal records centers above.

32. In *Human Radiation Experiments: The Department of Energy Roadmap to the Story and the Records*, DOE estimates that ORO holds over 7,000 cubic feet of records from the earliest days of the MED to the present.

33. As explained in detail in *Human Radiation Experiments: The Department of Energy Roadmap to the Story and the Records*, DOE personnel prepared "series descriptions" for numerous record collections at sites around the country for which indexes or inventories had never been prepared. They were a tool used to try to achieve some intellectual control over the vast numbers of records.

34. RG 326 contains records of the AEC, although at Atlanta and other National Archives branches and federal records centers it often also contains records of the MED. This and the other numbers in this section describing the size of record groups at the National Archives come from the National Archives publication, *List of Record Groups of the National Archives and Records Administration* (Washington, D.C.: January 1995).

35. Unfortunately, there are no records or other evidence indicating where these withdrawn items are in the ORO records holding area.

36. RG 326 at the College Park National Archives has less than 500 cubic feet of records. RG 430 has ERDA records and RG 434 DOE records, although depending on the repository there can also be AEC records in these record groups.

37. To give the reader an idea of the size and complexity of these records, it took one Advisory Committee staff member, with the occasional assistance of some colleagues, well over a month just to review the still-classified records.

38. Many of the DMA collections are in the custody or control of other headquarters offices. No folder listings were obtained for these collections and they were not examined.

39. Advisory Committee staff informed National Archives personnel that its review revealed, almost without exception, that all of the records were unclassified or declassified, some documents having been declassified immediately following the war. The matter is being reviewed.

40. These are generally duplicates of what is in the many classified accessions of Military Liaison Committee records in RG 330 at WNRC.

41. Radioactive lanthanum.

42. In contrast to the other laboratories and contractors around the nation, virtually all the records are actually housed at the local Federal records center in San Bruno and not at the laboratory. However, LBL recalls those records researchers want to examine which makes their review easy and convenient. Additionally, there have been a few collections over the years that have been transferred to RG 434 at the San Bruno National Archives. These, of course, cannot be recalled by LBL and must be examined at the National Archives in San Bruno.

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43. The Advisory Committee acquired a copy of the Joseph Hamilton collection as hard copy output of the microfilm edition. This copy includes a substantial biography and finding aid keyed to the microfilm. However, the amount of records of Hamilton held by LBL and other repositories is extremely small. It can only be presumed that most of them were lost or destroyed at some unknown time.

44. It should be noted that the large collection of papers of Dr. Ernest Lawrence, founder of UCRL and its director until his death in 1958, are at the Bancroft Library at the University of California at Berkeley. With the exception of a few boxes of records still undergoing declassification review by DOE (the "Box 99" records which are currently at LLNL and referred to previously), they are available to the public.

45. CIC is a records center operated by the Reynolds Electrical & Engineering Co., under contract with DOE. Reynolds' address is P.O. Box 98521, Las Vegas, Nevada 89193-8521. The CIC is the major source of the documents made available by DOE through the Internet (see below) and provides reference services and copies of documents to help the public.

46. Many Army records for the period 1912-1960 and some Air Force records for the period 1947-1964 were destroyed in a fire at the St. Louis facility in 1973; no civilian records were destroyed.

47. The World Wide Web is a network of Internet sites using graphical and hypertext formats permitting access to images and linking distant and diverse information sources.

48. One set of records reviewed were the summary minutes of the Committee on Medical Research, Office of Scientific Research and Development (OSRD), which are in RG 227 at the College Park National Archives. OSRD was created in 1941 to evaluate, manage, and coordinate the research and development (R&D) activities of the War and Navy Departments, except in the field of atomic energy which was the province of the Manhattan Engineer District. OSRD established numerous committees, each of which had jurisdiction over R&D in a particular field. OSRD was succeeded by the Joint Research and Development Board (JRDB) in early 1946, and the JRDB continued in existence until the following year when the Research and Development Board was established.

49. Steven L. Rearden, *History of the Office of the Secretary of Defense, The Formative Years, 1947-1950* (Washington, D.C.: Historical Office, Office of the Secretary of Defense, 1984), p.96-103.

50. Ibid.

51. Ibid. The initial committees included the Committees on Aeronautics, Atomic Energy, Basic Physical Sciences, Chemical Warfare, Electronics, Equipment and Materials, Fuels and Lubricants, Geographical Exploration, Geophysical Sciences, Guided Missiles, Human Resources, Medical Sciences, Navigation, and Ordnance.

52. Ibid.

53. Ibid.

54. See, e.g., Lt. John D. Stoeckle, MC, USAR, Panel Director, Committee on Medical Sciences, to Chairman and Members, Joint Panel on the Medical Aspects of Atomic Warfare, 15 December 1952 ("Department of Defense Research Program Under the Technical Objective AW-6"). ACHRE NARA-062094-A

55. See, e.g., *Program Guidance Report, Joint Panel on the Medical Aspects of Atomic Warfare*, dated September 15, 1952. ACHRE NARA-062094-A

56. See, e.g., *Technical Estimates, 1953, Joint Panel on the Medical Aspects of Atomic Warfare*, dated January 9, 1953. ACHRE NARA-062094-A

57. See, e.g., *Integrated Technical Estimates, Medical Sciences, 1949*, dated June 2, 1949. ACHRE DOD-112194-A

58. See, e.g., Agenda for the tenth meeting of the Committee on Atomic Energy of the Research and Development Board, 12 June 1949 (26 May 1948). ACHRE DOD-081695-A

59. The initial members and deputy members were Dr. Joseph Aub (chairman); Dr. Franklin McLean; Dr. Mayo Soley; Dr. Robert Newell; Dr. Robley Evans; Dr. Hymer Friedell; Col. E. DeCoursey, MC, USA; Lt. Col. K. H. Houghton, MC, USA; Maj. A. J. Bauer, MC, USA; Capt. C. F. Behrens, MC, USN; Capt. R. H. Draeger, MC, USN; Dr. Sidney Galler, USN; Lt. Col. R. H. Blount, MC, USAF; Lt. Col. J. M. Talbott, MC, USAF; and Lt. Col. C. W. DeBaun, MC, USAF. The initial associate members were Dr. D.B. Dill, Army Chemical Center; Mr. A.M. Pond, Public Health Service; Maj. W. J. Brown, USA; and Dr. Howard Andrews, National Institutes of Health. See, e.g., Minutes of the First Meeting of the Joint Panel on the Medical Aspects of Atomic Warfare, dated June 3, 1949; and *Program Guidance Report, Joint Panel on the Medical Aspects of Atomic Warfare*, dated September 12, 1952.

ACHRE NARA-062094-A

60. See DOD Directive 5105.1, *Responsibilities of the Assistant Secretary of Defense (Research and Development)*, dated June 30, 1953, and DOD Directive 5128.7, *Responsibilities of the Assistant Secretary of Defense (Research and Development)*, dated November 12, 1953. The first Assistant Secretary of Defense (Research and Development) was Dr. Donald Quarles. ACHRE DOD-071395-A

61. House Report No. 2618, 83rd Cong., 2nd Sess., 7 (1954). ACHRE NARA-072095-A

62. Ibid.

63. Ibid., 53.

64. See DOD Directives in the 5128 series. The initial coordinating committees were Atomic Energy; Biological and Chemical Warfare; Electronics; Equipment and Supplies; General Sciences; Guided Missiles; Marine Craft and Underwater Ordnance; Medical Sciences; Ordnance; Personnel and Training; Piloted Aircraft; Special Operations; and Tanks, Land, and Amphibious Vehicles. ACHRE DOD-071395-A

65. The initial members of the Research and Development Coordinating Committee on Medical Sciences were Dr. Robert W. Cairns, Deputy Assistant Secretary of Defense, Research and Development (acting chairman); Lt. Col. W. C. Burry, MC, USA, Office of ASD (R&D); Rear Adm. O.B. Morrison, MC, USN, Office of the Assistant Secretary of Defense (Health and Medicine); Col. John R. Wood, MC, USA, Office of the Surgeon General; Lt. Col. Morris Freeman, MSC, USA, Office of the Chief of Staff; Capt. O.D. Yarborough, MC, USN, Bureau of Medicine and Surgery; Capt. C. P. Phoebus, MC, USN, Office of Naval Research; Dr. Paul Sipple, Office of the Assistant Chief of Staff, G-4, U. S. Army; Col. A.P. Gagge, USAF, Office of the Deputy Chief of Staff/Development; and Dr. A.H. Lawton, Office of the Deputy Chief of Staff/Development. See, Minutes, First Meeting of the Coordinating Committee on Medical Sciences, 22 January 1954. ACHRE DOD-021795-A

66. See, e.g.,Military R&D Funds by Technical Objectives, 18 March 1954. ACHRE DOD-021795-A

67. See, e.g., Agenda, Second Meeting, Coordinating Committee on Medical Sciences, dated February 19, 1954. ACHRE DOD-021795-A

68. See DOD Directives in the 5128 series. The initial technical advisory panels were Aeronautics, Atomic Energy, Biological and Chemical Warfare, Electronics, Fuels and Lubricants, General Sciences, Materials, Medical Sciences, Ordnance, Personnel and Training Research, Research in Special Operations. ACHRE DOD071395-A

69. The initial members of the Technical Advisory Panel on Atomic Energy were Dr. Robert Bacher, Dr. John von Neumann, Dr. Murphee, and Dr. Ramsey. See, e.g., undated Technical Advisory Panel on Atomic Energy - Proposed Agenda for the First Meeting. ACHRE DOD-052695-B. The initial members of the Technical Advisory Panel on Medical Sciences were Dr. Richard Kern (chairman), Dr. Colin Macleod, Dr. Donald Hastings, Dr. Waltman Walters, Dr. Maynard Hine, Dr. Ross McFarland, Dr. John Youmans, Dr. Gioacchino Failla, Dr. Christian Lambertson, Dr. Harwood Belding, Dr. Richard Bolt, Dr. Abel Wolman, Dr. Harold Hodge, Dr. Carl Moore, Dr. Truman Blocker, Dr. Jonathan Rhoads, Dr. Lawrence Kelb, and Dr. Donald Pillsbury. See, e.g., Minutes of the First Meeting of the Advisory Panel on Medical Sciences, dated 17 March 1954. ACHRE DOD-020695-C

70. See DOD Instruction 5128.31, *Defense Science Board Charter*, dated December 31, 1956. ACHRE DOD-071395-A

71. Ibid.

72. See DOD Directive 5129.1, *Responsibilities of the Assistant Secretary of Defense (Research and Engineering)*, dated March 18, 1957. ACHRE DOD-071395-A

73. See House Report No. 2552, 85th Cong., 2nd Sess., 21 (1958). ACHRE NARA-072095-A All of the organizational units, however, underwent name changes. For example, the Research and Development Policy Council became the Research and Engineering Policy Council, the Research and Development Coordinating Committees were redesignated Research and Engineering Coordinating Committees, and the Technical Advisory Panels were renamed Research and Engineering Advisory Panels. See, DOD Instructions in the 5129 series. ACHRE DOD-071395-A

74. See DOD Instruction 5129.17, *Research and Engineering Coordinating Committee on Sciences*, dated August 14, 1957. ACHRE DOD-071395-A

75. See DOD Directive 5129.1, *Director of Defense Research and Engineering*, dated February 10, 1959. The first Director of Defense Research and Engineering was Dr. Herbert York. ACHRE DOD-071395-A

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76. See DOD Instruction 5129.44, *Department of Defense Committee on Research*, dated July 24, 1963. ACHRE DOD-071395-A

77. See DOD Instruction 5129.40, *DDR&E Advisory Panel on the Medical and Biological Sciences*, dated September 6, 1962. ACHRE DOD-071395-A. The initial members were Dr. Richard Kern (chairman), Dr. James Baker, Dr. James English, Dr. Charles Gell, Dr. J. Thomas Grayston, Dr. Donald Hastings, Dr. Harold Hodge, Dr. Gerald McDonnel, Dr. Frank McKee, Dr. Francis Moore, Dr. Harold Scheie, David Schwarz, Dr. Leslie Silverman, Dr. H. Burr Steinbach, Dr. Scott Swisher, Dr. Victor Witten, and Dr. Earl Wood. See, Col. Frederick J. Frese, Jr., MC, USAF, to Members, DDR&E Advisory Panel on the Medical and Biological Sciences, undated ("First Meeting - 30 November-1 December 1961, Wright-Patterson Air Force Base"). ACHRE DOD-112194-A

78. See Department of Defense Directives System Transmittal No. 67-16, dated June 7, 1967. ACHRE NARA-071395-A

79. See, e.g., DOD Directive 5129.22, *Defense Science Board Charter*, dated November 23, 1959. ACHRE DOD-071395-A

80. See, e.g., the summary minutes of various Joint Medical Research Conference meetings. ACHRE DOD-031795-C

81. Ibid.

82. Steven L. Rearden, *History of the Office of the Secretary of Defense, The Formative Years, 1947-1950* (Washington, D.C.: Historical Office, Office of the Secretary of Defense, 1984), p. 108-111.

83. Ibid.

84. Ibid. Dr. Richard L. Meiling served as director of these offices.

85. James Forrestal, Secretary of Defense, to the Secretaries of the Military Departments, et al., 2 January 1951 ("Establishment of the Armed Forces Medical Policy Council"). ACHRE DOD-041395-A. The initial members were Dr. Richard L. Meiling (chairman), Dr. James Hollers, Dr. W. Randolph Lovelace, Dr. I. S. Ravdin, and the three Surgeon Generals. See, Minutes of the Armed Forces Medical Policy Council, dated January 22, 1951. ACHRE DOD-021795-A. Dr. Lovelace became the chairman later in 1951, and in turn was replaced by Dr. Melvin A. Casberg in 1952. See, Minutes of the Meeting of the Armed Forces Medical Policy Council, dated May 14, 1951, ACHRE DOD-021795-A; and Minutes of the Meeting of the Armed Forces Medical Policy Council, dated February 25, 1952. ACHRE DOD-041395-A

86. Ibid.

87. See DOD Directive 5136.4, *Establishment of Assistant to the Secretary of Defense (Health and Medical)*, dated September 2, 1953. ACHRE DOD-071395-A. The first Assistant Secretary of Defense (Health and Medical) was Dr. Melvin Casberg. He was replaced by Dr. Frank Berry in 1955, who continued to serve until the office was disestablished in 1961. See *Final Report of the Assistant Secretary of Defense (Health and Medical), 1 July 1958-31 January 1961*. ACHRE NARA-122994-B

88. Ibid.

89. See *The Annual Report of the Assistant Secretary of Defense (Health and Medical), 1 July 1954-30 June 1955*. ACHRE NARA-122994-B

90. See DOD Directive 5120.27, *Assistant Secretary of Defense (Manpower)*, dated January 31, 1961. ACHRE DOD-071395-A

91. See DOD Directive 5136.1, *Assistant Secretary of Defense (Health and Environment)*, dated June 23, 1970. ACHRE DOD-071395-A

92. Steven L. Rearden, *History of the Office of the Secretary of Defense, The Formative Years, 1947-1950* (Washington, D.C.: Historical Office, Office of the Secretary of Defense, 1984), p. 27-28.

93. Ibid., p. 18.

94. Ibid. The first chairman was D. F. Carpenter (1947-1948), the second William Webster (1948-1950), and the third Robert LeBaron (1950-1955).

95. National Archives and Records Service, *United States Government Organization Manual, 1953-1954* (Washington, D.C.), 124. ACHRE NARA-072095-A

96. Robert LeBaron served as the first Assistant Secretary of Defense (Atomic Energy) from 1953 to 1955.

97. See Executive Order 10952, dated July 20, 1961, and DOD Directive 5140.1, *Assistant Secretary of Defense (Civil Defense),* dated August 31, 1961. ACHRE DOD-071395-A

98. See Alice C. Cole, Alfred Goldberg, Samuel A. Tucker, Rudolph A. Winnacker, Editors, *The Department of Defense, Documents on Establishment and Organization, 1944-1978* (Washington, D.C.: Historical Office, Office of the Secretary of Defense, 1978), p. 194-196.

99. See Sen. Rep. No. 142, 87th Cong., 1st Sess. 191-192 (1961). ACHRE NARA-072095-A

100. Ibid., 251.

101. Except for some photographs and sound recordings, there are no RG 330 records at any of the regional National Archives facilities.

102. The specific accessions examined in RG 330 and the other record groups at WNRC are set forth in Appendix A, Review Status of Records at Washington National Records Center.

103. The War Department, and for many years numerous NME/DOD components, used the War Department Decimal System for filing in which each number represented a specific subject or topic. For example, "334" files have records of boards and committees and "385.2" files have records relating to biological, chemical, and radiological warfare. Archivists at the National Archives have works describing this filing system in detail.

104. See, e.g., DOD Instruction No. 3200.2, *Responsibilities, Policy, and Procedure for Research and Development Project Coordination,* dated November 5, 1954. ACHRE DOD-071395-A

105. See May 3, 1995, letter from James David to Dr. Joseph Osterman. ACHRE Staff Research Series, James David File.

106. See June 28, 1995, letter from Col. Claud Bailey, Jr., USA, to James David. ACHRE Staff Research Series, James David File.

107. See, e.g., DOD Instruction No. 3200.2, *Responsibilites, Policy, and Procedure for Research and Development Project Coordination,* dated November 5, 1954. ACHRE DOD-071395-A

108. Surprisingly, these were the only verbatim minutes located of the meetings of the many R&D advisory boards, committees, and panels that have existed since 1947. Interestingly, only the unclassified, Confidential, and Secret portions of meetings were transcribed. For example, portions of a few meetings of the Committee on Human Resources were Top Secret and the minutes explicitly state that these were not transcribed.

109. These periodic progress reports were required to be submitted under various authorities, the latest of which was DOD Directive 3200.1, *R&D Project Card Manual,* dated February 16, 1952. ACHRE DOD-071395-A. This entry unfortunately does not have all the progress reports and related materials from every DOD component for the entire 1947-1953 period. For example, only the 1947-1948 reports of the Navy's Bureau of Medicine and Surgery are in the entry. On the other hand, all the 1947-1953 reports of the Army's Office of Surgeon General are in the entry.

110. See, e.g., the reports in ACHRE NARA-102594-B.

111. The still-classified documents include, among others, some Top Secret Army Chemical Corps reports, the only Top Secret Chemical Corps documents ever located. Advisory Committee staff intended to review some of these still-classified reports, but there was insufficient time and personnel to do so.

112. The Army Epidemiological Board is discussed separately below.

113. See Department of the Army Memorandum No. 15-435-1, *Boards, Commissions, and Committees - Army Scientific Advisory Panel*, dated August 12, 1954. ACHRE DOD-062695-B. The initial members were Dr. J.R. Killian, Jr., Dr. Detlev Bronk, C.H. Greenewalt, Robert T. Haslam, Dr. Frederick L. Hovde, Dr. C.C. Lauritsen, Morrough P. O'Brien, Dr. William Shockley, and William Webster. Frank Pace, Jr., to Mr. Keller, November 7, 1951 ("I want to express again ..."). ACHRE DOD-062695-B

114. See undated memorandum on the Army Scientific Advisory Panel. ACHRE DOD-62695-B

115. National Archives and Records Service, *United States Government Organization Manual, 1953-1954* (Washington, D.C.), 141. ACHRE NARA-072095-A

116. See undated *Report of the Subcommittee on Medical Research of the Committee on Medical and Hospital Services of the Armed Forces*. ACHRE NARA-101294-B

117. Chief, Office of Research and Development, Department of the Army, *U.S. Army Organization and Procedures for Research and Development* (Washington, D.C.: 1960), 44. ACHRE DOD-062695-B

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118. See undated *Report of the Subcommittee on Medical Research of the Committee on Medical and Hospital Services of the Armed Forces*. ACHRE NARA-101294-B

119. Ibid.

120. *Summary of Major Events and Problems, 1 July 1953 - 30 June 1954, Office of the Surgeon General*, 30 September 1954, 199. ACHRE DOD-030795-A

121. Office Chief of Research and Development, Department of the Army, *U.S. Army Organization and Procedures for Research and Development* (Washington, D.C.: 1960), 44-46. ACHRE DOD-062695-B

122. Ibid.

123. Ibid.

124. See, e.g., *Chemical Corps Research and Development Program, Fiscal Year 1950*, 1 July 1949, 1. ACHRE NARA-083094-B. See also, DOD Instruction 5160.5, *Responsibilities and Procedures for Coordination of Research and Development on Biological and Chemical Warfare*, dated April 8, 1955. ACHRE DOD-071395-A

125. Ibid.

126. *Chemical Corps Research and Development Program, Fiscal Year 1950*, 1 July 1949, 1-4. ACHRE NARA-083094-B

127. See Memorandum from Col. Richard D. Read, USA, Deputy Commander, U.S. Army Chemical, and Biological Defense Command, to HQDA, dated February 25, 1994. ACHRE Staff Research Series, James David File.

128. See *Replies From Executive Department and Federal Agencies to Inquiry Regarding Use of Industry Advisory Committees (January 1, 1953 to January 1, 1956)*, Committee on Government Operations, House of Representatives, November 1, 1956, 1458-1459. ACHRE NARA-072095-A

129. Ibid., 1456-1461. The initial full members were Dr. W.A. Noyes, Jr. (Chairman), Dr. Paul Hudson, Dr. Walter Kirner, Dr. H.F. Johnstone, Dr. Franklin McLean, Dr. Harold Smith, Dr. W.M. Latimer, Dr. M.C. Winternitz, and the initial associate members were L. Wilson Greene, Col. R.N. Isbell, Col. Hugh Rowan, Col. J.R. Wood, and Dr. O.C. Woolpert. Minutes of Meeting of the Research Council, 3 March 1947. ACHRE DOD-033095-B

130. The initial members included Dr. M.C. Winternitz (Chairman), Dr. Harold Hodge, Dr. N. Paul Hudson, Dr. Franklin McLean, Dr. Paul Neal, Dr. Harold Smith, Dr. Austin Brues, Dr. I.S. Ravdin, and Dr. Paul Neal. Ibid.

131. The members of the newly-designated Medical Committee were Dr. Herbert Longenecker, Dr. H.D. Bruner, Dr. A. McGehee Harvey, Dr. John Venable, and Dr. John Zapp, Jr. *Replies From Executive Departments and Federal Agencies to Inquiry Regarding Use of Industry Advisory Committees (January 1, 1953 to January 1, 1956)*, Committee on Government Operations, House of Representatives, November 1, 1956, 1456-1461. ACHRE NARA-072095-A

132. Minutes of the 14 April 1947 Meeting of the American Chemical Society Committee Advisory to the Chemical Corps. ACHRE DOD-060295-B

133. Ibid.

134. *Report and Recommendations of the Committee (Society of American Bacteriologists), Advisory to the U.S. Army Chemical Corps*, dated February 10, 1959. ACHRE DOD-060295-B

135. *Historical Report of the U.S. Army Chemical Corps Advisory Council, et al., October 1, 1961-December 31, 1961*. ACHRE DOD-050395-B

136. There are almost 2,000 cubic feet of records in RG 337. None of the regional National Archives has any RG 337 records.

137. These records will be moved to the College Park National Archives later this year. No regional National Archives has any RG 175 records. As discussed above in the section on OSD records, the formerly Confidential and Secret 1947-1952 Chemical Corps R&D progress reports to the RDB were examined.

138. See, letter from James E. David to Col. David Suttle, MC, USA, dated October 5, 1994. ACHRE Staff Research Series, James David File.

139. A much more detailed description of this search is contained in an undated Memorandum for the Record on the Edgewood Arsenal records review provided by DOD to the Advisory Committee in April 1995. ACHRE DOD-050195-A

140. See, e.g., letter from Col. Claude Bailey, Jr., USA, to the Command Historian, dated December 14, 1994. ACHRE Staff Research Series, James David File.

141. This record group has over 20,000 cubic feet of records None of the regional National Archives has any RG 319 records.

142. See, letter from James E. David to Col. Claude Bailey, Jr., USA, dated October 25, 1994. ACHRE Staff Research Series, James David File.

143. See, letter from Col. Claude Bailey, Jr., USA, to Chief, Records Management Branch, Administration Office, Office of the Army Surgeon General, dated December 14, 1994. ACHRE Staff Research Series, James David File.

144. From the records reviewed, it does not appear that the Scientific Advisory Panel in the 1950s ever reviewed or evaluated any biomedical research involving human radiation experiments.

145. There are over 3,400 of records in this record group. No regional National Archives has any RG 335 records.

146. Alfred Goldberg, Editor, *A History of the United States Air Force* (Princeton: D. Van Nostrand Company, Inc., 1957), 181.

147. See undated *Report of the Subcommittee on Medical Research of the Committee on Medical and Hospital Services of the Armed Forces.* ACHRE NARA-101294-B

148. Ibid.

149. See *Department of Defense Appropriations for 1962: Hearings Before the Subcommittee of the House Committee on Appropriations*, 87th Cong., 1st Sess. 468 (1961). ACHRE NARA-072095-A

150. Thomas A. Sturn, *The USAF Scientific Advisory Board, Its First Twenty Years, 1944-1964* (Washington, D.C.: Office of Air Force History,1986), p. 13-26.

151. Ibid.

152. Ibid.

153. During the 1947-1964 period, this succession of panels produced fifteen reports on various aspects of the Air Force's biomedical research program. Dr. W. Randolph Lovelace was the chairman from 1947-1952 and was succeeded by Dr. Donald Hastings (1952-1955), Dr. John Hickam (1956-1957), Dr. Clayton White (1957-1959), Dr. Loren Carlson (1960-1962), and Dr. John Marbarger (1962-1964). Ibid, p. 145, 171.

154. Ibid., p. 166-170.

155. Dwight D. Eisenhower, Chief of Staff, to Commanding General, Army Air Forces, 16 September 1947 ("Long Range Detection of Atomic Explosions"). ACHRE DOD-120894-A

156. Gen. Hoyt S. Vandenberg, USAF, to Deputy Chief of Staff, Material, 14 November 1947 ("Long Range Detection of Atomic Explosions"). ACHRE DOD-120894-A

157. See undated report "Beginnings of AFOAT-1." ACHRE DOD-032195-A

158. Dr. Louis Ridenour was the first Chief Scientist.

159. Air Force Systems Command, Office of History, *An Air Force Command for R&D, 1949-1976, The History of ARDC/AFSC* (Washington, D.C.: 1976), 17, 73.

160. Ibid., 46, 75.

161. See letter from James E. David to Col. Gerald J. Merritt, USAF, dated November 1, 1994. ACHRE Staff Research Series, James David File.

162. RG 341 has over 7,000 cubic feet of records. No regional National Archives has any RG 341 records.

163. No regional National Archives has any RG 340 records.

164. See undated *Report of the Subcommittee on Medical Research of the Committee on Medical and Hospital Services of the Armed Forces.* ACHRE NARA-101294-B

165. Senate Report No. 142, 87th Cong., 1st Sess. 244 (1961). ACHRE NARA-072095-A

166. See DOD Directive 5154.16, *Armed Forces Radiobiology Research Institute,* dated May 12, 1961. ACHRE DOD-071395-A

167. See undated *Report of the Subcommittee on Medical Research of the Committee on Medical and Hospital Services of the Armed Forces.* ACHRE NARA-101294-B

168. Ibid.

169. Ibid.

170. Ibid.

171. Ibid.

172. J. Newell Stannard, *Radioactivity and Health, A History* (Washington, D.C.: Department of Energy, Office of Scientific and Technical Information, 1988), 1064-1069.

173. Ibid.

174. Ibid.

175. It should be noted that no Navy office has ever used the War Department Decimal System in any form. Instead, most Navy offices have always followed the filing system established under the *Navy Filing Manual.* This publication, which is periodically reissued, must be reviewed before doing any substantial research in Navy records.

176. There are over 1,300 cubic feet of records in RG 52 at the College Park National Archives. No regional National Archives has any RG 52 records.

177. In contrast to the Army and Air Force, the Navy has always had a relatively small historians' office. Consequently, there have been far fewer official histories of Navy programs and offices written through the years.

178. For a detailed description of this search, see the report to the Assistant to the Secretary of Defense (Atomic Energy) from Capt. R.R. Williams, III, USN, dated April 12, 1994 (DOD document NAV1.950516.002, ACHRE DOD-071095-A); the report to the Chief of Bureau of Medicine and Surgery from Capt. J.D. George, USN, dated October 31, 1994 (DOD document NAV1.941101.001a); and the report to the Chief of Bureau of Medicine and Surgery from Capt. J.D. George, USN, dated November 30, 1994 (DOD document NAV1.941208.010; ACHRE DOD-122794-A).

179. There are fewer than 100 cubic feet of records in RG 298. No regional National Archives has any RG 298 records.

180. No regional National Archives has any RG 428 records.

181. See, e.g., the undated and untitled discussion of federal agencies involved in atomic energy. ACHRE NARA-072095-A

182. Ibid.

183. Ibid.

184. National Archives and Records Service, *U.S. Government Organization Manual, 1971-1972* (Washington, D.C.: GPO), 181. ACHRE NARA-072095-A

185. Ibid.

186. See, DOD Directive 5154.16, *Armed Forces Radiobiology Institute,* dated May 12, 1961.

187. RG 374 has less than 500 cubic feet of records. No regional National Archives has any RG 374 records.

188. See *Department of Defense Appropriations for 1962: Hearings Before the Subcommittee of the House Committee on Appropriations*, 87th Cong., 1st Sess. 477-478 (1961). ACHRE NARA-072095-A

189. See DOD Directive 5154.8, *Armed Forces Epidemiological Board,* dated October 8, 1953. The commissions at the time of the change from AEB to AFEB were the Commission on Acute Respiratory Disease, Commission on Environmental Hygiene, Commission on Enteric Infections, Commission on Liver Diseases, Commission on Immunization, Commission on Influenza, Commission on Streptococcal Disease, and Commission on Virus and Ricksettial Disease. See, e.g., *Department of Defense Appropriations for 1962: Hearings Before the Subcommittee of the House Committee on Appropriations*, 87th Cong., 1st Sess. 477-484 (1961). ACHRE NARA-072095-A

190. Ibid., 484.

191. The initial members were Dr. V.P. Bond (Director), Dr. Jacob Furth, Dr. Myron Silverman, Dr. Richard Stoner, Dr. W. Barry Wood, Dr. Austin Brues, Dr. Sandord Elberg, and Dr. C. Philip Miller. See, *Commission on Radiation and Infection, Director's Summary, 1963-1964.* ACHRE NARA-052295-B

192. RG 334 contains the records of many inter-service groups and organizations. No regional National Archives has any RG 334 records.

193. Records from the same or successor organizations are supposed to be placed in the same record group at both the National Archives and Federal records centers. It is not known why AEB and AFEB records are in RG 334 at the National Archives, while in RG 112 at WNRC.

194. From the records reviewed, it does not appear that this commission sponsored any research involving human radiation experiments.

195. Many Army records for the period 1912-1960 and some Air Force records for the period 1947-1964 were destroyed in a fire at the St. Louis facility in 1973; no civilian records were destroyed.

196. The Office of Scientific Research and Development (OSRD) was part of the Executive Office of the President and coordinated war-related research work during World War II. Its two major components were the Committee of Medical Research (CMR) and the National Defense Research Committee (NDRC), the latter concerned with engineering and physical sciences.

197. Each agency within DHHS was directed to work with the appropriate records management personnel to review every SF-135 generated by the agency between January 1, 1944 and May 30, 1974 to determine if it contains one or more of the following key words: radiation, radioactive, radioisotopes, radiological, radiology, radiometry, radionuclide, radiotherapy, roentgen, x ray.

198. Information is contained in the IMPAC database at NIH. Data for 1944-1961 includes the name of the principal investigator the name of the investigator's institution, the title of the proposal, the amount and years funded, and award number. After 1961, additional data may include further information on the principal investigator and institution, budget information, scientific classification, and subject data..

199. After 1961, data also may include further information on the principal investigator and institution, financial information, information about the review, topical categorization, and other data. Human subjects coding began in 1973.

200. This is the Protocols by Institute database. ACHRE accession HHS-012795-A contains a report of this database of more than 5,000 protocols. The report lists the reference number, termination data, title, principal investigator, and notes whether or not the experiment was likely to involve radiation or human subjects.

201. A fuller account of ACHRE's interview programs is available in chapter 4 of this volume.

202. The NIH Division of Research Grants also created a database of NIH-supported scientists who received AEC distributed isotopes that includes bibliographies of the articles resulting from their research.

203. Advisory Committee on Human Radiation Experiments. Third Meeting, 13-14 June 1994, Washington, D. C. Briefing Book, Tab I: *Initial Report on the Department of Veterans Affairs Document Search*, June 7, 1994.

204. For example, VA's *Medical Research in the Veterans Administration*, produced annually beginning in 1956, contained abstracts of radioisotope research projects and, in some years, simply names of researchers and titles. However, VA relied on this source to create for ACHRE in September 1994 a list of approximately 3,500 projects that VA characterized as human radiation experiments (for further information, see the section on experiments in chapter 5, ACHRE Information Collections, below).

205. ACHRE asked that all available materials be obtained from Long Beach (successor to Van Nuys), San Francisco, and West Los Angeles (Wadsworth) in California; Denver, Colorado; Hines, Illinois; New Orleans, Louisiana; Boston (successor to Framingham), Massachusetts; Ann Arbor, Michigan; Bronx, New York; Nashville, Tennessee; Houston, Texas; Salt Lake City, Utah; and Milwaukee (successor to Wood), Wisconsin. These documents are included in ACHRE accessions VA-080994-E, VA-091394, VA-092194-A, and VA-092794-A.

206. VA has, however, indicated its ability and willingness to respond to individual veterans' requests for information about possible radiation experiments that may appear in their own medical records; see the section on using agency records, below.

207. Accounts of searches at non-agency repositories appear in chapter 3 of this volume.

208. While the confidential activities remain largely a mystery (cf. Chapter 10 of the Advisory Committee's final report), Advisory Committee staff did uncover financial records authorizing consultants' fees from funds allocated to the Division. ACHRE-UCLA-100794-A

209. Roger E. Bilstein. *Orders of Magnitude: A History of the NACA and NASA, 1915-1990.* Washington, D. C.: National Aeronautics and Space Administration, Office of Management, Scientific and Technical Information Division, 1989. The NASA History Series. NASA-SP-4406.

210. John A. Pitts. *The Human Factor: Biomedicine in the Manned Space Program to 1980.* Washington, D. C.: National Aeronautics and Space Administration, Scientific and Technical Information Branch, 1985. The NASA History Series. NASA SP-4213.

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211. National Academy of Sciences. Space Science Board. Life Sciences Committee. Space Radiation Study Panel. *Radiobiological Factors in Manned Space Flight: Report.* Wright Langham, ed. Washington, D.C.: National Academy of Sciences, National Research Council, 1967.

212. U. S. Congress. House of Representatives. Committee on Science and Technology. Subcommittee on Investigations and Oversight. *Human Total Body Irradiation (TBI) Program at Oak Ridge. Hearing...September 23, 1981.* Washington: GPO, 1982.

213. NASA citation: MSCI 1860.2, Establishment of MSC Radiological Control Manual And Radiological Control Committee, effective May 12, 1966, 3.

214. A fuller account of NASA's HREs is available in chapter 5 of this volume.

215. Statement of Charles W. Edington, Acting Associate Director, Office of Health and Environmental Research, Office of Energy Research, U. S. Department of Energy, in *Human Total Body Irradiation (TBI) Program at Oak Ridge*, op. cit., 126.

216. The evidence is fragmentary but includes, for example: Nov. 16 1961, Memorandum from Frank K. Pittman, Director, Division of Reactor Development, to S. R. Sapirie, Manager, Oak Ridge Operations Office, Subject: Radiation Effects Studies for NASA, with attachments (1) Radiation Effects Studies for NASA (Proposed Interagency Agreement) [etc.] (in ACHRE accession NARA-071894-A).

217. The schedules state that contract files should be kept for seven years after the termination of the contract.

218. Memorandum from David Gries to Human Radiation Experiments Steering Group, Jan. 21, 1994 (unclassified excerpts).

219. The CIA provided staff with a list of 22 persons whom it contacted; the identities of the remaining persons are classified.

220. "The Central Intelligence Agency's Search for Records on Human Radiation Testing," Apr. 13, 1994. ACHRE Data Collection Series, Agency Liaison File, CIA Subfile.

221. Emphasis added in this and the next quotation.

222. "CIA Inspector General Report of Inspection of MKULTRA", Aug., 14, 1963, reprinted in *Joint Hearings on Biomedical and Behavioral Research, 1975 before the Subcommittee on Health of the Committee on Labor and Public Welfare and the Subcommittee on Administrative Practice and Procedure of the Committee on the Judiciary, U.S. Senate*, 94th Cong., 1st Sess., Sept. 10, 12, and Nov. 7, 1975, at 881, 885. [1975 Kennedy Hearing.]

223. Advisory Committee staff were aided in their research by input from numerous independent researchers and concerned citizens concerning the CIA and human radiation experiments.

224. These records will be available as part of the ACHRE collection at the National Archives. A copy of these CIA documents has also been given to the National Security Archive in Washington, D.C.

225. "Memorandum for the Record--The Central Intelligence Agency and Human Radiation Experiments: An Analysis of the Findings, May 21, 1995" [CIA History Staff Memo]. (ACHRE No. CIA-081495-A.) Names of most individuals have been redacted.

226. Senate Select Committee to Study Governmental Operations with Respect to Intelligence Activities, *Final Report, Book I -- Foreign and Military Intelligence*, 94th Cong., 2d Sess., Apr. 26, 1976, S. Rep. No. 94-755 [Church Committee Report].

227. Church Committee Report, Book I, 404.

228. Church Committee Report, Book I, 406.

229. Frank Olson, an army scientist, was given LSD in 1953 and apparently committed suicide about 10 days later.

230. "Report of the Inspection of MKULTRA/TSD," July 26, 1963. ACHRE CIA-060195-A. At the request of the Advisory Committee, the full text of this report has been declassified. A redacted version of this appears in the 1975 Kennedy Hearing, 881-905.

231. Church Committee Report, Book I, 402.

232. Ibid.

233. "Report of the Inspection of MKULTRA/TSD," July 26, 1963, 10.

234. Church Committee Report, Book I, 422.

235. The CIA representatives informed staff that in 1978 the agency conducted a comprehensive search for any records concerning MKULTRA and related activities in light of the failure to locate records for the Church Committee that were then found in 1977, suggesting that any additional controversial activities concerning human testing in the 1950s and 1960s would likely have been uncovered then. All of the MKULTRA files that were recovered by the CIA have been preserved and are now held by the CIA's General Counsel.

236. *Joint Hearing on Project MKULTRA, The CIA's Program of Research in Behavioral Modification, before the Senate Select Committee on Intelligence and Subcommittee on Health and Scientific Research of the Senate Human Resources Committee*, 95th Cong., 1st Sess. (Aug. 7, 1977) [1977 Kennedy Hearing].

237. The CIA noted that there were 33 additional subprojects that "have nothing to do either with behavioral modification, drugs and toxins, or any closely related matter." 1977 Kennedy Hearing, 10.

238. The National Security Archive is a non-governmental, non-profit research institution that collects, analyzes, and maintains declassified government records on national security matters. It will hold copies of some Advisory Commitee information; see chapter 5.

239. "Report of the Inspection of MKULTRA/TSD," July 26, 1963. ACHRE CIA-060195-A

240. CIA History Staff Memo, 5.

241. The Geschickter Fund for Medical Research served as the principal cut-out source for the CIA's secret funding of numerous MKULTRA projects. In addition, the CIA unsuccessfully tried to enlist the Atomic Energy Commission to co-fund the project by appealing to its interest in Geschickter's radiation research.

242. *Human Drug Testing by the CIA, 1977: Hearings on S. 1893 before the Subcommittee on Heath and Scientific Research of the Senate Committee on Human Resources*, 95th Cong., 1st Sess. 44-99 (1977).

243. Wallace L. Chan, M.D., "Memorandum for the Record: Establishing and substantiating the 'bona fides' of agent and/or staff personnel through techniques and methods other than interrogation," Undated. ACHRE No. CIA-022795-A

244. CIA History Staff Memo, 3.

245. *Human Drug Testing by the CIA, 1977*, 92-93.

246. CIA History Staff Memo, 16-17.

247. James A. Hamilton, M.D. to Geschickter Fund for Medical Research, Mar. 30, 1965 ("This is a request for a grant . . . ."). ACHRE CIA-051195-A

248. "Organization of SO (Office of Security) components dealing with ARTICHOKE," undated (perhaps early 1954). ACHRE CIA-091694-A

249. ACHRE CIA-071095-A

250. Dr. James H. Huddleson to Chief, Technical Branch, Office of Security, "Conference with Dr. Webb Haymaker," Nov. 4, 1953. ACHRE CIA-091694-A

251. ACHRE CIA- 071095-A

252. CIA History Staff Memo, 2.

253. The Church Committee reports that one of the three principal functions of the Special Operations Division (SOD) of the U.S. Army Biological Center at Camp Detrick, Maryland was to conduct "biological research for the CIA." Church Committee Report, Book I, at 395. In early 1952, SOD agreed "to assist CIA in developing, testing, and maintaining biological agents and delivery systems. By this agreement, CIA acquired the knowledge, skill, and facilities of the Army to develop biological weapons suited for CIA use." *Id.* at 389. Thus, many of the early CIA LSD tests were conducted at Ft. Detrick. In the late 1960s, much of the work of MKSEARCH, at TSD, was transferred back to Ft. Detrick.

254. See *Philadelphia Inquirer*, September 18, 1977, citing a 1963 local news article describing an Army experiment at Holmesburg "in which prisoners were to have limited areas of their skin exposed to small amounts of radioactive isotopes."

255. See Memorandum for Deputy Director for Science and Technology, "OFTEN/CHICKWIT Revisited," Oct. 19, 1978. ACHRE CIA-032395-A

256. Scott Breckinridge, Memo to Inspector General, "ORD Research and Development for Intelligence Applications of Drugs," Attachment on "Influencing Human Behavior," 2-3, Jan. 31, 1975. ACHRE CIA-032395-A

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257. "Memorandum for the Record: Trip Report/Edgewood Arsenal," Feb. 12, 1975. ACHRE CIA-032395-A

258. CIA representatives were listed on the roster pages of the transcripts of the first, third, fourth, fifth, tenth, thirteenth, fourteenth, and seventeenth meetings of the CMS.

259. See CIA History Staff Memo, 9-10.

260. See CIA History Staff Memo, 10-12.

261. CIA History Staff Memo, 13.

262. *Human Radiation Experiments: The Department of Energy Roadmap to the Story and the Records*, op. cit., 249-251.

263. The CIA declassified a redacted version of this 1965 MOU. CIA ref. OAQL-0828, ACHRE CIA-082595-A

264. Marks, *Manchurian Candidate*, 118.

265. See J. Newell Stannard, *Radioactivity and Health: A History* (Washington, D.C.: Department of Energy, Office of Scientific and Technical Information, 1988).

266. CIA Interview Notes of Persons Contacted Regarding Human Radiation Experiments (1994) (ACHRE CIA-080994-A). Oddly, and notwithstanding the CIA's prior disclosure to the Committee regarding Robley Evans, the CIA sent a letter in August 1995 to Advisory Committee Chair Dr. Ruth Faden stating that "[a]s a matter of policy, the Central Intelligence Agency can neither confirm nor deny the existence of contractual relations with either [Dr. Robley D. Evans or Dr. Harold C. Hodge]." Brian Latell, Director, CIA Center for the Study of Intelligence to Ruth Faden (August 4, 1995).

267. For a discussion of Evans' activities, see the introduction to the Advisory Committee's final report.

268. CIA Interview Notes of Persons Contacted Regarding Human Radiation Experiments (ACHRE CIA-080994-A).

269. The account of this agency is included with that of the Department of Energy, above.

270. Hugh L. Thompson, Jr., Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support, EDO, United States Nuclear Regulatory Commission, to Those on Attached List, Subject: Review of License Files for Records Related to Research involving Human Subjects, January 7, 1994. ACHRE NRC-011895-A

271. James M. Taylor, Executive Director for Operations, United States Nuclear Regulatory Commission, to the Chairman, Commissioner Rogers, Commissioner Remick, Commissioner de Planque, Subject: Survey of NRC Record Files for Records Related to Research Involving Human Subjects, February 4, 1994. ACHRE NRC-011895-A

272. Copies of these reports are included in the ACHRE document collection, the latest in NRC-041295-A.

273. See the next section for further information on Congressional hearings and reports.

274. U. S. Congress. House of Representatives. Committee on Energy and Commerce. Subcommittee on Energy Conservation and Power. *American Nuclear Guinea Pigs: Tthree Decades of Radiation Experiments on U. S. Citizens*. Washington: USGPO, 1986.

3

NONFEDERAL SOURCES

INSTITUTIONAL SOURCES

A number of universities and other nonfederal institutions were visited by ACHRE staff members or otherwise provided documents and information. Copies of research documents collected may be found in the Document Collection, accessioned under the source institution. The names of the staff members doing the research are identified to locate additional records that may contain pertinent information; those records are collected under the staff member's name in ACHRE's Staff Research Series.

Boston University

The Mugar Memorial Library[1] at Boston University, Boston, Massachusetts, contains the papers of Shields Warren, donated by his family. These are primarily personal papers and do not seem to contain official files from either his government work or his posts at Boston area hospitals. Of considerable value are his personal diaries, covering 1947-1974. Tersely written, they nevertheless are helpful in pinpointing events and dates, provided the researcher already has a good grasp of the events and can read the diaries in context.

The Center for Law and Health Sciences[2] at the School of Law is the institutional successor to the Boston University Law-Medicine Research Institute, which in the early 1960s carried out a major NIH-funded study of "Administrative Practices in Clinical Research." The purpose of this study, as stated in the unpublished final report, was to investigate "actual practices, attitudes and philosophies . . . being applied in the legal and ethical aspects of clinical investigation." A variety of archival documents associated with this project can be found in the library of Center for Law and Health Sciences. A copy of the project's final report (of over 300 pages) exists at Boston University's Mugar Memorial Library.

George Washington University

George Washington University Law Library[3] contains Irving Ladimer's Doctor of Juridical Science dissertation. Ladimer, the leading legal authority on human experimentation in the 1950s, completed a thesis in 1958 titled "Legal and Ethical Implications of Medical Research on Human Beings". This document, which was never published, is over 200 pages in length.

Georgetown University

The National Reference Center for Bioethics Literature[4] at the Kennedy Institute of Ethics at Georgetown University contains holdings of medical ethics and biomedical research literature, including encyclopedias and dictionaries, journals and newsletters, books, reports of the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, Office of Technology Assessment publications, and access to Bioethicsline (an online database for literature on the ethics of health care and biomedical research). The holdings are open to the public but cannot be circulated outside of the library.

Harvard University

The Department of Rare Books and Special Collections[5] at the Francis A. Countway Library of Medicine, Harvard Medical School, Cambridge, Massachusetts, contains the papers of Henry Beecher, a former Harvard Medical School faculty member and a pivotal figure in the history of research ethics.

Massachusetts General Hospital

Research and interviews were conducted concerning the functioning of the hospital's institutional review board.[6]

Massachusetts Institute of Technology

The MIT archives in Cambridge, Massachusetts, contain the papers of Robley Evans, a physicist prominent since the 1930s in developing instrumentation and investigating radiation effects on humans. In addition to running the MIT cyclotron and advising on a wide variety of projects, he directed the long-term follow-up studies of the radium dial painters. The collection contains records of these activities, as well as correspondence files. Folder listing of the holdings were copied for the Advisory Committee.

National Academy of Sciences

The papers of the National Research Council's Committee on Growth were examined in the archives of the National Academy of Sciences[7] in Washington, D.C., to find documentation concerning the distribution of radioisotopes by the Manhattan Engineering District before the formation of the Atomic Energy Commission. Among the papers of that committee were records of a small advisory committee composed of members of the National Academy of Sciences formed in order to discuss the creation and distribution process for radioisotopes, as well as price lists and other documents concerning the structure of the distribution process. Some documents defined the role of the National Academy of Sciences as a liaison between the MED and the research conducted by the investigators.

Medical College of Virginia

The archives of the Medical College of Virginia[8] in Richmond contain several collections of interest, the most important of which are the papers of Dr. B. W. Haynes. The Haynes collection, which also encompasses the collection of Dr. Everett Evans, contains a wide range of information on MCV. The Advisory Committee's primary research interest was the Army's contract to investigate the effects and treatments of thermal radiation burns following an atomic blast. The papers of William Ham and Drs. Abbott and Woods are also of interest but are small collections.

Texas A&M University

Paul Aebersold's papers, from his career with the Manhattan District and the Atomic Energy Commission, are kept in the archives at Texas A&M University[9], College Station, Galveston. Aebersold began his service with the Manhattan District in 1944, working at both Oak Ridge and Los Alamos. In 1946, he was named chief, Isotopes Branch of the Manhattan Project and he later served as chief, Isotope Division of the AEC, at Oak Ridge. In this position, he acted as liaison with non-MED advisory groups, including the Interim Advisory Committee on Isotope Distribution Policy. In 1958, he became director of the AEC's Office of Isotope Development, the purpose of which was to develop overall policy and procedures and administer programs for encouraging industry uses. Aebersold was a strong advocate for expanding industrial and medical uses of isotopes, and he took a special interest in creating international markets for isotopes, especially in Latin America. The contents of this collection include correspondence with scientists and colleagues; memoranda and meeting notes related to isotope distribution and pricing policies; and transcripts from the many speeches Aebersold gave on isotope uses.

University of California at Los Angeles

The primary purposes of the visits to UCLA[10] was to find information on the Veterans Administration's radioisotope program, particularly concerning program's 1947 creation and its "confidential" Atomic Medicine Division, the role of Stafford Warren on VA's Central Advisory Committee on Radioisotopes, the establishment of a radioisotope unit at the Wadsworth VA Hospital in West Los Angeles and its connection to UCLA Medical School, and the establishment of other area units. Advisory Committee staff reviewed boxes in Series 300 of the administrative files of Stafford Warren (within the Medical School collection at the UCLA archives) and retrieved pertinent correspondence, annual reports, abstracts, and minutes of meetings. Staff also reviewed portions of the Stafford Warren papers in the University Research Library for information about the Manhattan Project and Operation Crossroads. UCLA also sent ACHRE a recently published history of the UCLA School of Medicine and a three-volume transcript of an oral history interview with Stafford Warren conducted in the late 1960s.

University of Michigan

The historical collections of the University of Michigan Library[11] in Ann Arbor contain the minutes and records of the Human Use Subcommittee of the Radioisotope Safety Committee. The records were well-organized and in good condition. Approximately one quarter cubic foot of documents were selected, becoming the basis of the University of Michigan section of the radioisotope chapter in the final report.

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University of Tennessee

The Radiation Research Collection[12] in the Special Collections Library at the University of Tennessee, Knoxville, contains documents from 1897 to the present, mostly the papers (correspondence, conferences, meetings, lectures, published papers, etc.) of noted radiation experts such as Alexander Hollaender, Charles Dunham, Harold H. Gray, and others. Documents concerning the irradiation of pregnant women and fetuses and the exposure of workers to ionizing radiation and policies on claims of harm to those workers from the collection are included in ACHRE UT-030395-A.

Other Institutions

The following institutions were also sources of information: Baylor University; Montefiore Medical Center; University of California at Berkeley; University of California at San Francisco; University of Chicago; University of Cincinnati; University of Texas, M. D. Anderson Cancer Center; University of Utah; University of Wisconsin-Madison; Vanderbilt University; Virginia Commonwealth University; West Virginia University; and Yale University.

ORGANIZATIONS AND INDIVIDUALS

The Advisory Committee benefitted greatly from various organizations and individuals who, interested in the success of its investigations, contributed the results of their own research or cooperated in finding other information and documents. The documents they provided are arranged in the ACHRE Research Document Collection under the rubrics Corporation (for organizations) or Individual (for persons). The following organizations provided information and documents:

60 Minutes
Alaska Public Interest Research Group
American College of Radiology
American Institute of Physics
Arnold & Porter
Battelle Memorial Institute
Beth Israel Hospital, Boston
Blue Mountain Tumor Registry
Cable News Network (CNN)
Citizen Alert & Rural Alliance for Military Accountability
Copeland, Landye, Bennett and Wolf
Deseret News
Embassy of the Republic of the Marshall Islands
Federation of American Scientists
Government Accountability Project
Graves & Hilgemann
Hiroshima and Nagasaki 50th Anniversary Committee
Human Resources Research Organization
Institute for Energy and Environmental Research
Kircher, Robinson, Cook, Newman & Welch
KUED
Lieff, Cabraser & Heimann
Marshall Islands
M. D. Anderson Cancer Center
M. D. Anderson Hospital
National Academy of Sciences
National Association of Atomic Veterans
National Association of Radiation Survivors
National Security Archive
National Security News Service
Natural Resources Defense Council
Physicians for Social Responsibility
Portsmouth-Piketon Residents for Environmental Safety and Security
Public Citizen Litigation Group
Research and Technology
South Shore Health Center
Taft, Stettinius & Hollister
U.S. News & World Report
Vanderbilt University

Van Ness Feldman
Washington Bureau

Western States Legal Foundation

The following individuals provided information and documents, either voluntarily or at the request of ACHRE:

Beverly Aleck
Betty Allen
Scott Amey
Donald C. Arbitblit
Victor Archer
Doris J. Baker
Barton Bernstien
William R. Bibb
Harold Bibeau
Yael Bloom
Fred Boyce
Gene Branham
Pat Broudy
Cooper Brown
Frances Brown
Mary Jane Bunch
Richard Casey
Robert Conard
Eugene P. Cronkite
William Dale Cummins
H. W. Cummins
Lee Davidson
Susan E. Dawson
Susan Dayton
Tony A. DeBrum
Stephen Dycus
David Egilman
Paula Elofson-Gardine
Betty Freels
William L. Freeman
Hymer Friedell
Tidoro A. Garcia
Robert Gary
Michele Stenehjem Gerber
John Gofman
Estella Goodwin
Theron Gregg
Marcia Haggard
James Hamilton
Mary O. Hendrickson
Cliff T. Honicker
Pat Hoover
Barbara Humphrey
Kathy Jacobovitch
John Kelly
Jackie Kittrell
Catherine M. Knox
Ray Koonuk
Irving Ladimer
John Lane
R. E. Lapp
Joe P. Larkin
Fred Larsen
Venia Lazenby
Brenda Lee
Gary Litton
Bernard Lo
Charles A. Lundberg
Nancy L. Lynch
Leslie Lynch
Gary E. Madsen
Arjun Mahkinjani
Joan McCarthy
Wilton McClure
Dot Mcleod
Dorothy Litton McWright
Janice E. Metzner
Karl Morgan
Dennis Nelson
Diane F. Orentlicher
Coy D. Overstreet
Madiline Padula
Lillian Pagano
Charles Alvin Paulsen
Rosalie Petty
Bob Phillips
Gwendon Plair
Kathy Platoni
Norman Carl Rabin
Marcus Raskin
Sue Rabbitt Roff
Thomas H. Row
Eugene Saenger
Diana Salisbury
Geoffery Sea
Richard Sheldon
Maury Silverman
Richard D. Smyser
Marylin C. Stanley
Newell Stannard
Karen Steele
Martha Stephens
Janice Stokes
William Sweet
Dorothy Swenty
Carolyn Szetela
Darcy Thrall
Israel Torres
Stewart Udall
Eddie Vaughn
Jonathan Weisgall
Paul S. White
Cass Dee Williams

STATE GOVERNMENTS

Commonwealth of Massachusetts

The Advisory Committee used background materials and reports of two investigations conducted by the Massachusetts Department of Mental Retardation: one by the Task Force on Human Subject Research, resulting in the report *A Report on the Use of Radioactive Materials in Human Subject Research that Involved Residents of State-Operated Facilities within the Commonwealth of Massachusetts from 1943 through 1973*; and one by the Working Group on Human Subject Research, resulting in the report *The Thyroid Studies: A Follow-up Report on the Use of Radioactive Materials in Human Subject Research that Involved Residents of State-Operated Facilities within the Commonwealth of Massachusetts from 1943 through 1973.*

State of California

The Advisory Committee obtained copies of the 1978 California statute, "Protection of Human Subjects in Medical Experimentation Act."

State of Oregon

The Advisory Committee obtained copies of documents produced by the Hanford Dose Reconstruction Project in Richland, Washington, from the Oregon Department of Energy.

State of Washington

The Advisory Committee obtained information and documents concerning the prisoner experiments at the Washington State Prison in Walla Walla and the Green Run intentional release at Hanford from the Office of Radiation Protection, the Archives and Records Management Division, and the Department of Social and Health Services.

ADDITIONAL SOURCES

The staff of the Advisory Committee relied upon the Department of Energy library to facilitate most of its requests for monograph and serial purchases and for interlibrary loan requests. The staff also did extensive research at several libraries in the Washington area, notably those at George Washington University and Georgetown University, and at the National Library of Medicine and the Library of Congress.

The most used online services were MEDLARS from the National Library of Medicine, the Nuclear Science Abstracts on Dialog, and Lexis. The Advisory Committee also had online access to DTIC, provided by the Department of Defense. These services were used chiefly by the staff research librarian.

The CD-ROM version of DOE's Coordination and Information Center (CIC) index was mounted on the Advisory Committee's network and available at the workstation of anyone who requested it. Staff made extensive use of the database, particularly in the information discovery and citation verification phases of

their work. Several staff members also performed ad hoc searches on the Internet; they were then encouraged to find print replicas for their discoveries, to assure validity and to facilitate access to the same information by the public.

ENDNOTES

1. Visited by ACHRE staff member Gilbert Whittemore.
2. Visited by ACHRE staff member Jon Harkness.
3. Visited by ACHRE staff member Jon Harkness.
4. Visited by ACHRE staff member Sara Chandros.
5. Visited by ACHRE staff member Jon Harkness.
6. Visited by ACHRE staff member Barbara Berney.
7. Visited by ACHRE staff member Shobita Parthasarathy.
8. Visited by ACHRE staff member John Kruger.
9. Visited by ACHRE staff member Gwen Davis.
10. Visited by ACHRE staff member Denise Holmes.
11. Visited by ACHRE staff members Barbara Berney and Jonathan Engel.
12. Visited by ACHRE staff members Noel Theodosiou and John Kruger.

4

ACHRE RESEARCH PROJECTS

INTERVIEWS[1]

Ethics Oral History Project

Beginning in October 1994,[2] staff interviewed 22 senior physicians who participated in clinical research over the course of their careers, in order to gain insight on the ethical climate of human biomedical experimentation during the Cold War era. In addition, staff interviewed two individuals who were administrators at the National Institutes of Health (NIH) during the 1950s. Although these individuals did not have formal medical or scientific training, they were intimately involved with ethical and legal aspects of human experimentation during this the relevant time period.

The Ethics Oral History Project was established under the auspices of the ACHRE Ethics Subcommittee, and Advisory Committee member Sue Lederer was the subcommittee chair. The project applied for and received IRB approval (from Pennsylvania State University College of Medicine) because it sought to draw generalizable conclusions from the data collected. Interview subjects signed an informed consent form prior to being interviewed. Sue Lederer was listed as the principal investigator on the protocol.

Prior to selecting the individuals to be interviewed, staff solicited suggestions from a panel of expert consultants. The 22 physicians interviewed were drawn from a variety of disciplines including radiology, infectious diseases, pharmacology, hematology, and obstetrics/gynecology. They had also worked in several different institutional settings, including government facilities (both military and nonmilitary), universities, and pharmaceutical companies, and had conducted experiments with a variety of subject populations.

These individuals were considered leaders in their disciplines or, through their writings, had shown a particular interest in and sensitivity to the ethical dimensions of biomedical experimentation. Some of the interview subjects were clearly pioneers in the field of research ethics, while others confronted ethical issues for the first time in the course of their research. The Advisory Committee

believed that the former group could offer valuable insight not only on their own experiences but also on the attitudes of their colleagues who might have had less concern about the ethical aspects of human experimentation.

The records of Ethics Oral History Project interviews generally include the original audio tape of the interview and an approved transcript. Individuals interviewed for the Ethics Oral History Project included the following:

Interview Subject	*Comments*
Herbert Abrams, M.D.	Professor of Radiology at Stanford University, 1951-present.
John Arnold, M.D.	Clinical researcher who began career during World War II as an assistant in the malaria studies at Statesville Prison in Illinois. In the 1970s, he publicly changed his mind regarding the use of prisoners as research subjects.
Malcolm Bagshaw, M.D.	Professor Emeritus in Cancer Biology, Department of Radiation Oncology, Stanford University.
Paul Beeson, M.D.	Chairman of Department of Internal Medicine at Yale University, 1952-1965. Organized one of first conferences of ethics appraising the 1964 Helsinki Declaration.
Thomas Chalmers, M.D.	Former Dean and President, Mount Sinai School of Medicine; consultant to Veterans Administration and Department of Defense.
Harry Dowling, M.D.	Clinical researcher in infectious diseases beginning prior to World War II.
Stuart Finch, M.D.	Head of Atom Bomb Casualty Commission; head of Clinical Investigation Committee at Yale University in the 1960s.
Clifton Himmelsbach, M.D.	Clinical researcher on addiction, beginning the 1930s; studied prisoners.
Robert J. T. Joy, M.D.	Department of Medical History, Uniformed Services University of the Health Sciences (no transcript available due to technical difficulties).
Irwin Kaiser, M.D.	Emeritus Professor of Obstetrics & Gynecology, Albert Einstein College of Medicine.
Charles Kidd, Ph.D.	Chief, Office of Research Planning at NIH, 1949-1960.
Irving Ladimer, J.D., S.J.D.	Associate Director, NIH Office of Research Planning in the early

	1950s; has written on legal and ethical aspects of human experimentation.
Louis Lasagna, M.D.	Dean, Sackler School of Graduate Biomedical Sciences, Tufts University; clinical pharmacologist; prolific writer on issues of public health and medical ethics.
Seymour Perry, M.D.	Assistant Professor of Medicine at UCLA in the 1950s. Researcher, then Director, National Cancer Institute. Currently Senior Scholar for Medical Technology & Practice Patterns Institute.
Edward Quilligan, M.D.	Professor of Obstetrics & Gynecology, University of California at Irvine.
Seymour Romney, M.D.	Professor Emeritus, Department of Obstetrics & Gynecology, Albert Einstein College of Medicine.
Saul Rosenberg, M.D.	Professor of Medicine and Radiation Oncology, Stanford University School of Medicine.
Leonard Sagan, M.D., M.P.H.	Associate Director in Department of Environmental Medicine, Palo Alto Medical Clinic, 1968-1978; served as physician in nuclear medicine with Medical Research Branch, Division of Biology and Medicine, AEC, 1965-1968. Has written widely on radiation risk assessment and health effects of radiation exposure.
Henry Seidel, M.D.	Professor Emeritus, Pediatrics, The Johns Hopkins University School of Medicine.
William Silverman, M.D.	Former Professor of Pediatrics, Columbia-Presbyterian Medical Center and University of California Medical School, San Francisco. Author, *Human Experimentation: A Guided Step Into the Unknown*.
Herman Wigodsky, M.D.	Clinical pathologist who worked for Armed Forces Institute of Pathology.
Theodore Woodward, M.D.	Former member of the U.S. Typhus Fever Commission, Commission on Epidemiological Survey, and Commission on Rickettsial Diseases; served as president of the Armed Forces Epidemiological Board for 12 years. Organized Department of Infectious Diseases at University of Maryland School of Medicine and served as chairman of Department of Medicine there from 1954-1981.

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Targeted Interview Project

The Targeted Interview Project, also conducted by Advisory Committee staff, was a more informal program of information gathering and had nothing of the scientific apparatus of the Ethics Oral History Program.[3] Its general goals were to obtain information from individuals with a particular perspective on the topics being investigated by the Advisory Committee, especially those who might have a well-developed general view of experiments, institutions, or research programs, or who might have specific knowledge of an individual experiment or institution of interest. The records of Targeted Interview Project interviews generally include the original audio tape of the interview and a transcript, often approved by the interviewee. A full listing of those interviewed follows:

Howard Andrews
Victor Bond
Belton Burrows
Tom Chalmers
Meredith Crawford
Eugene Cronkite
Jerome Dummer
Patricia Durbin
Hymer Friedell
Jack Healy
Ervin Kaplan
Clarence Larson
Alfred Leussenhop
Clarence Lushbaugh
Earl Miller
Karl Morgan
C. Alvin Paulsen
Don Petersen
Nicholas Petrakis
Col. John Pickering
Gen. E. A. Pinson
Gen. Carey Randall
Joseph Ross
Mavis Rowley
Eugene Saenger
Glenn Seaborg
J. Newell Stannard
William Sweet
Prof. Martha Stephens
Cornelius Tobias
Joseph Volpe
Brace Walpole
Baird Whaley
Herman Wigodsky
Theodore Woodward

Other Individual Interviews

In addition to the Oral History and Targeted Interview projects, Advisory Committee staff interviewed several other people on a more informal basis. Among these were Ed Alpan, Merril Eisenbud, Sebra Hawkins, Orris S. Hiestand, Robert J. T. Joy, Almira Matayosai, several former NIH officials, and several individuals in Rochester, New York, site of some of the plutonium injections. Audio tapes exist for all of these interviews, but not all were transcribed.

Subject Interview Study

The Subject Interview Study (SIS)[4] was a descriptive study in which patients were interviewed to determine whether they believed that they were participants in medical research, their general attitudes and beliefs about medical research, and, if applicable, why they did or did not decide to participate in research. The SIS conducted almost 1,900 interviews at medical institutions across the country, and included patients who were research subjects and patients who were not. All of these patients participated in a Brief Survey; 103 patients who reported that they were research participants also

completed an In-Depth Interview. Medical and research records for those interviewed were then examined to determine their status as subjects or not. Data were entered into computerized databases for comparison and analysis.

Advisory Committee staff and consultants designed the SIS, recruited institutions to participate in the study, conducted some of the interviews, and analyzed the data. The Research Triangle Institute was hired to conduct focus groups, pilot test the interview instruments, conduct the majority of the interviews, and perform most of the data entry.

To preserve confidentiality, the interview transcripts and other documents were redacted to remove references to patients, institutions, medical conditions, or other information that could be used to identify individuals or institutions.

SURVEYS

Research Proposal Review Project

The Research Proposal Review Project (RPRP)[5] was conducted to evaluate the extent to which the rights and interests of persons involved as subjects of contemporary research conducted or supported by the federal government appear to be adequately protected, and to compare the subjects of radiation research with those in nonradiation research. The RPRP had two objectives:

1. To determine for a sample of contemporary research projects, based on research proposal and IRB materials, whether risks and benefits, informed consent procedures, and the selection of subjects appear to be appropriate; and
2. To determine whether research proposals and IRB materials provide sufficient information to make judgments about the protection of human subjects.

The RPRP collected data from agencies and grantee institutions that was not currently available in useful form from other sources. Listings of research proposals involving human subjects and ionizing radiation were obtained from the Departments of Defense, Energy, Health and Human Services, Veterans Affairs, and the National Aeronautics and Space Administration, that included (1) research proposals involving ionizing radiation that were approved and funded by the agency in fiscal years 1990 through 1993, and (2) a comparison group of research proposals not involving ionizing radiation that were approved and funded by the same agencies during the same period.

From the lists, a sample of 125 research proposals was selected, and the individual institutions performing the research were asked for the following documents: grant proposal; institutional review board (IRB) application; consent form as submitted to the IRB and as approved by the IRB; IRB's final disposition letter; changes approved after the IRB's initial approval; any application submitted to and the official letter of approval from a radioactive drug research committee (RDRC); and any application submitted to and official letter of approval from any institutional human use committee other than the IRB or RDRC. All of the 43 extramural grantee institutions to whom the Advisory Committee submitted a request complied with this request.

A selected group of Advisory Committee members and staff reviewed and evaluated the proposal materials using a standardized review form. The review team included persons with technical expertise in radiation risk and medicine, and knowledge of the appropriate standards for informed consent and selection of human subjects. The evaluation focused on the appropriateness of the informed consent procedures, selection of subjects, and balancing and distribution of risks and potential benefits. The data collected were entered into computerized databases for analysis. In order to safeguard confidentiality, the identity of the reviewers is not included in ACHRE records.

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Institutional Case Studies

Another potentially valuable Advisory Committee project, the Institutional Case Study Project, unfortunately became overwhelmingly broad for the resources available to it. As originally conceived, this project would have comprised a series of case studies of institutions involved in sponsoring or conducting human radiation experiments, focusing on the management aspects of how such experiments were proposed, evaluated, approved, and conducted.[6] There were two central purposes to such research. First, it was asserted (with the assent of Advisory Committee member Philip Russell, who was consulted early on this project) that a full understanding of the nature and implications of such experiments required an understanding of the institutional context in which they occurred; in this sense, the research was to answer the question, "How could such activities have occurred?" Second, it was well known that the scientific, technical, and bureaucratic infrastructures of the Cold War period were heavily integrated, with many of the same individuals sitting on the same committees together and approving one another's research by wearing different hats; consequently, institutional case studies were expected to turn up both additional research leads in other institutions and a broader perspective on the overall private and public research communities.

The original institutions targeted were Oak Ridge National Laboratory and its associated university consortia, the University of California at Los Angeles, the University of California at San Francisco, Los Alamos National Laboratory, and the School of Aviation Medicine. In the end, however, there were too few hands and too many places to search to do the broader project. The only complete case study was of the University of California at San Francisco (reported in *Supplemental Materials*, companion volume 1 of the ACHRE final report). Of the others, only the Oak Ridge case study produced substantial research.

General information about the project may be found in the ACHRE Research Project Series, Institutional Mapping/Management Theme File. UCSF materials may be found in the ACHRE Staff Research Series, in the files of Gregg Herken and John Kruger. Oak Ridge papers may be found in the ACHRE Staff Research Series, in the files of Don Weightman, Deborah Holland, and Noel Theodosiou. In addition, the Oak Ridge team used a database to collect and index research findings; information from and about that database may be found in the ACHRE Research Project Series, Project Discussion Database File.

ENDNOTES

1. Information about individuals who presented testimony before the Advisory Committee may be found in Appendix G, Schedule of Advisory Committee Meetings and Meeting Documentation.

2. Two early reports to the Advisory Committee on the interview projects may also be of interest. The first, "Interview Projects," November 14, 1994, describes both the oral history project and the targeted interview project, and provides background information on some of the individuals interviewed. The second, "Ethics Oral History Project--Preliminary Findings," January 12, 1995, includes a substantial discussion of findings and hypothetical analyses, and a list of expert consultants (see below); it was presented to ACHRE at its tenth meeting in January 1995 (Tab G in the Briefing Book). The records of this project are included in ACHRE Research Project Series, Interview Program File, Ethics Oral History Program.

3. As indicated above, the November 1994 report on the interview projects discusses the Targeted Interview Project as well as the Ethics Oral History Project. The records of the former are in ACHRE Research Project Series, Interview Program File, Targeted Interview Project.

4. A summary report of the SIS appears in the final report, with additional project related information included in companion volume 1, *Supplemental Materials*. The records of the SIS may be found in ACHRE Research Projects Series, Subject Interview Study File. The records include both paper and electronic media.

5. A summary report of the RPRP appears in the final report, with supporting data and information included in companion volume 1, *Supplemental Materials*. The records of the RPRP may be found in ACHRE Research Projects Series, Research Proposal Review Project File. The records include both paper and electronic media.

6. Other terms used to refer to this project were "institutional mapping" and "management theme."

Volume 2

5

ACHRE INFORMATION COLLECTIONS

This chapter focuses on the ways in which the information collected by the Advisory Committee was acquired and used--how it was obtained, processed, and made available to ACHRE researchers, and what they did with it--and on the information structure that resulted from interaction with that information by members and staff in the course of their work. As a result, this chapter also functions as a general finding aid for the ACHRE information collection deposited with the National Archives.

The first section reports on the acquisition and processing of information obtained and how it was shared within ACHRE. This is followed by sections describing the two largest information collections, the Research Document Collection and the Advisory Committee Records Collection. The former is supported by an extensive listing of contents in two appendices. The discussion of the latter, as explained in the text, is preliminary to the more detailed descriptions that accompany the records themselves. The next section concerns the collection of experiments, which may have been the original object of research but which, as discussed in the final report and also here, became less of a destination and more of a point of departure for the Advisory Committee. Then there are brief discussions of published sources and other collections. Detailed lists of these collections (except the Advisory Committee records) are contained in the appendix volume. This chapter also refers to *attachments*--these are contained in this volume, following this chapter.

OVERVIEW OF RESOURCE SELECTION, REVIEW, AND MANAGEMENT

Resource Acquisition and Selection

The information collected by the Advisory Committee was approximately evenly divided among (1) documents delivered under agency mandate, (2) documents selected from agency collections by ACHRE members and staff or at their request, and (3) documents requested specifically by staff, the greater part of this last category consisting of published materials. These processes were managed through the use of computerized databases that recorded and described receipts, monitored and tracked

requests, and managed the online and other bibliographic retrieval processes.[1] With limited exceptions (some of these are discussed in chapter 2 of this volume), ACHRE researchers were able to obtain the documents they requested.

Research Documents

Chapter 2 discusses the general search and retrieval processes put in place by the agencies in response to the President's directive of January 17, 1995. These processes resulted in the bulk of the documents deposited with ACHRE up to the end of August 1994, and continued to produce receipts into the following winter.[2] From the beginning of ACHRE operations, however, Advisory Committee staff met frequently with agency staff to provide additional direction to the search process based on evolving research perspectives. During this early period and until the fall of 1994, the most active interaction between the agencies and staff on document retrieval was through designated staff liaison personnel, whose chief function was to provide feedback on the results of agency research and to convey comments and requests from other staff members.[3]

In September 1994, however, it became apparent that both the increasingly detailed directions being pursued by researchers and their need to share information about research outside their immediate focus were not being addressed by the management process then in place. As a result, the Agency Data Request Tracking Database and a parallel records series were established to assist in managing the information collection process. Beginning in October 1994, all requests to agencies for information or records were initiated by staff in the database and processed by one staff member for formatting; eventually most requests were also transmitted by the database administrator. These requests were numbered and agencies were requested to respond by number. Records of responses, correspondence, and fulfillment were kept in the database, and information provided was added to the Research Document Collection or otherwise preserved with appropriate cross-references. All staff had access to the database, which became a primary source of information on overall research direction and results.[4]

Beginning in November 1994 with a trip to Oak Ridge, Tennessee, ACHRE staff visited a number of Department of Energy (DOE) and other governmental sites and nongovernmental institutions to review collections and retrieve specific information. Besides Oak Ridge, the sites visits to government offices included the national laboratories at Argonne, Brookhaven, Hanford, Lawrence Livermore, and Los Alamos, the DOE History Archives, and the headquarters of the Nuclear Regulatory Commission and the National Archives. The results of these site visits are summarized in chapter 2 of this volume; more detail is available in the ACHRE Data Collection series and in the papers of the individual researchers (see below). The nongovernmental sites visited are summarized in chapter 3 of this volume; limited additional detail may be available in the papers of the individual researchers.

Published Documents

Access to online databases was requested as early as April 1994, interlibrary loan and document delivery arrangements with the DOE library were established in June 1994, and a database to record and manage requests for printed information was created in July 1995. These resources were not extensively used until August 1994, when a librarian was added to the Advisory Committee staff. The librarian established a program to pursue staff research requests and track document receipts, established accounts with several local libraries and online vendors, and subscribed to a journal article delivery service. The librarian also managed a number off-site research projects in several university libraries and at the National Library of Medicine, chiefly in support of experiment identification.

Document Review and Analysis

Whether delivered under the general agency mandate or specifically selected by ACHRE, all primary research documents[5] were subject to a review and analysis process involving the following steps: (1) a triage process in which collections were evaluated as a whole and assigned a priority for detailed review; (2) a review process in which collections were evaluated at the document level to identify documents that met various specific criteria or were significant to current research interests; and (3) a description process in which individual documents or document sets were described and categorized by type and subject. Descriptive information about both collections and documents was recorded in a database available to all Advisory Committee members and staff; with some frequency, the availability of this information prompted secondary reviews by others, whose comments were also recorded in the database.

The (non-exhaustive) categories used for both accession and document description are included as Attachment 1, Subject Listing; Attachment 2, Person Listing; and Attachment 3, Institution Listing.

Information Management

ACHRE's information services group coordinated a different information management program for each of the established ACHRE information collections. The most detailed of these managed the processing of the Research Document Collection, eventually coordinating data collection, receipt, accession, review and analysis, description, and retrieval. The second program controlled the development and use of electronic resources, including the creation of new applications, security and access issues, resource distribution, and data migration. The third controlled acquisition, cataloging, and circulation of print resources. The fourth concerned the maintenance of the documentation created by ACHRE in the course of its work. Towards the end of ACHRE operations, a fifth program was created to coordinate the National Archives deposit. Management tasks were largely accomplished electronically through databases using Lotus Notes software.[6]

Research Document Management

For research documents, staff members created records[7] that included significant descriptive details for information resources at three levels--collection, inventory and document--in the process assigning unique identifiers[8] and standard subject and other descriptors. These records were posted in shared databases that permitted multiple types and levels of categorization, data manipulation by users, full text and multiple database searching, and other features. The process of accession and description of individual collections was generally handled by the information services staff, while many of the individual document descriptions were created directly in the database by the research staff members who had reviewed the documents.

Electronic Information Management

Apart from the databases devoted to indexing generally shared information (which are addressed separately), there were three large areas of electronic information management: staff applications, internal and external access, and research support.

Staff Applications

Most members of the Advisory Committee and its staff, including consultants, used computer equipment connectable to ACHRE's network and were provided with standard software and access to shared data drives. Indeed, the greater part of ACHRE's business was conducted electronically. Even chapter drafts were frequently reviewed without being printed by the expedient of being sent to reviewers attached to electronic mail messages. These arrangements led to some complexity in the National Archives depository process, which is addressed below. In general, until that late point (and with the exception of version control procedures imposed in the last couple of months of the development of the final report), management of personal electronic resources was in the hands of the users.

Information Access

Within the Advisory Committee, and until the creation of the depository process, there were generally no restrictions (beyond personal ethics) on access to word processing documents kept on the common data drives. Generally, staff members had reader access to all the common research databases, but they had access to only their own electronic mailboxes. Most databases had restricted compose access, although several had request or comment modules that permitted staff members to initiate action or comment on action taken by others.

The Advisory Committee also felt a deep commitment to maintaining continuous two-way communication with the public about the progress of its research. As part of its public access program, it created an alternative publications program that provided electronic access to copies of documents that would usually have been available only as part of ACHRE's archives (e.g., the briefing books, minutes, and transcripts of its meetings, indexes to documents, experiments, and publications; and other information). This program involved establishment of electronic mail facilities and creation of gopher and World Wide Web sites on the Internet.

The process of creating the Internet information sites would have been simpler had ACHRE operated about a year later than it did, because about the time it was completing its work various pieces of translation software became available that would have eased migration of word processing and Lotus Notes texts into the formats required by gopher and WWW. In the end, however, the Internet site included the full print records of ACHRE meetings (including images of information not formattable as text), indexes to its main information databases, and copies of the interim and final reports.

Research Support

ACHRE's Research Proposal Review Program (RPRP) and Subject Interview Study (SIS)[9] used Lotus Notes features to track program progress, record research data, and perform statistical analysis. These applications are documented in detail in the RPRP and SIS files in the ACHRE Research Project Records Series.

Print Resources

As mentioned above, print resources were managed largely through a database that permitted staff members to request items and the librarian to process and track the requests. One by-product of that process was a public catalog of everything purchased, borrowed, or retrieved. The resulting bibliography is described below and reproduced as Appendix C, ACHRE Bibliography.

It was generally impossible to maintain control over printed materials once they were inside ACHRE's office, and so--beyond protecting certain reference sources, and providing specific locations for other commonly used materials--no attempt at control was made apart from noting in the Publications Database which individual's name was associated with materials that he or she had requested, borrowed, or was last known to have had. This was a relatively effective device, judging by the small number of lost items. A copy of each article retrieved was kept for the Library file, however.

ACHRE Documentation

ACHRE did not maintain a central policy file or impose a specific filing scheme. Management of office records was distributed to work groups or specific staff members under a scheme that identified key individuals generally responsible for one or more identified records series. These series were established based on the organization of the staff and the projects to which they were assigned or the functions they performed. Over time, as projects were completed and new ones established, the list of series was adjusted accordingly. The general organization of this scheme is reflected in the description of Advisory Committee records below.

National Archives Deposit

The process of assembling, arranging, and describing ACHRE information for deposit in the National Archives was facilitated by the electronic information management environment at ACHRE, but was complicated by the generally self-managing nature of that environment. To coordinate the deposit process, a fifth information management program was created in May 1995 that integrated the processing of the document collections, working documents, electronic information, and the creation of this volume, *Sources and Documentation*. This program is discussed in the following sections as it applies to the various components of the ACHRE collections and the repository process is discussed specifically in the last section of this chapter; additional information on the program is contained in the ACHRE Records Management Series and on electronic information in Appendix G, Technology Note.

RESEARCH DOCUMENT COLLECTION

General Physical Description

The Research Document Collection comprises over 1,400 separate accessions of documents in various media (but mostly paper) from almost 50 major government and institutional collections, 40 nonfederal organizations, and over 90 individuals. The cumulative volume of paper records is over 450 cubic feet, or roughly half a million documents, with an additional small volume of audio, video, microform, and a variety of electronic records. The collection does not contain photographs or other illustrative materials. Most paper records are copies from agency collections or the National Archives. The largest collections are records of the Departments of Energy, Defense, and Veterans Affairs. A listing of the total volume of records by source is included in Attachment 6, Accessions Volume by Source.

Organization of the Collection

The organization of the Research Document Collection was based on the *provenance* or source of the records, as determined from ACHRE's perspective. The three categories of origin that determined the placement of an *accession* or group of records within the Research Document Collection were *repository*, *corporation*, and *individual*. A repository was an institution (such as a federal agency or a university) that had an official relationship to records of human radiation experimentation activities, either because it generated and kept records of activities that it sponsored, or because it kept other records of which HRE-related records were a part (for example, the personal papers of a scientist or the records of an advisory committee). Corporations and individuals were institutions or persons who possessed such records but did not have an official relationship to them *as records*.[10] The list of depositing organizations and institutions and the acronyms used to encode their records is included at the beginning of Appendix B, Brief Descriptions of Records Collections in the ACHRE Document Collection; the lists of corporations and individuals are included in chapter 3.

In order to control the flurry of receipts of often undescribed piles of paper, the basic unit of acquisition and description was deemed equivalent to an *accession*--that is, a discrete delivery of documents deposited under a particular transmittal letter or, in the absence of a transmittal letter (a frequent occurrence in the early months), the records that arrived together in the same box or shipment from the same source on the same day.[11] The accession code, or *ACHRE number*, assigned to an accession was composed of the source code (e.g., DOD), plus the date of receipt, plus a letter of the alphabet to differentiate among receipts from the same source on the same day. For example, the code *DOD-061794-C* indicates the third collection received from the Department of Defense on June 17, 1994.[12]

Most agency records were received in duplicate, but duplicates were not counted in accession volume. There was no attempt to associate related collections physically or to screen them for duplication of previous receipts, as it was assumed that computerized indexing would associate them intellectually.

Privacy Act and Classified Information

Some collections (particularly from the Department of Energy[13]) contained privacy materials that were either delivered in redacted and unredacted sets (that is, two copies, one of each type), or in two complete unredated sets, with privacy materials segregated in envelopes arranged within the order of the records as deposited. In storage, these records were labelled with Privacy Act stickers.

Advisory Committee members and staff had security clearances, and using classified collections and indexes[14] they identified a substantial number of classified documents that were then declassified at ACHRE's request. However, no classified documents were ever received, described, or stored as part of the Research Document Collection or otherwise held in the offices of the Advisory Committee.

Description of Collections and Documents

All information concerning the research document collection was recorded in a single database composed of accession records, inventory records, and document description records, with links between records for a particular accession. Accession records contained information on the circumstances of receipt and origin, provided a physical description and a brief contents description, and listed the descriptors assigned for subjects, people, and institutions. This information was often supplemented by a contents description record contributed by a staff member or by an inventory created by the information services staff. Document description records, created as a result of the document review process

described above, recorded the particulars and research significance of individual documents or document sets.

Finding Aids

The minimum information on an accession is an accession record, and many accessions have no further information recorded. Major collections also have inventories that list each document or significant document sets. Most inventories were created by ACHRE staff, but (beginning in late summer 1994), DOD began including detailed inventories with its deposits. If upon review a collection yielded significant individual documents or document sets, these were individually described.

Brief descriptions of the individual accessions are included in Appendix B, Brief descriptions of Records Collections in the ACHRE Document Collection. Fuller descriptions are included in the Records Accession and Disposition File in the ACHRE Records Management Series, which contains the Accessions Register and transmittal documents. Additional information is also available in the Document Collection Database File in the same series, which includes full printouts of the records and views of that electronic resource. ASCII versions of that database's records and views are available from the National Archives; copies of the original Lotus Notes-format databases are available at the National Security Archive (for further information, see "National Archives Deposit", below).

Additional information about documents in the Research Document Collection may also be found in the Radiation Experiments Command Center (RECC) database at DOD, and in the Coordination and Information Center (CIC) databases at DOE. The RECC database includes records for all documents transmitted by DOD, and is also available at the National Security Archive (it is not available in this format at NARA). The CIC databases contain document descriptions for most items transmitted by DOE.

ADVISORY COMMITTEE RECORDS

The Advisory Committee Records Collection contains the documents created by ACHRE in the process of doing its work. These records consist primarily of the records of ACHRE's meetings; committee and agency correspondence; staff research, analyses and reports; the papers of particular research projects and functional processes; development and creation of the interim and final reports; and ACHRE organization and management.

ACHRE's own records are more complicated than the Research Document Collection because they were not collected and described in discrete units but developed contextually, evolving in complexity as the Advisory Committee's work evolved. As a result, the descriptions of ACHRE series are not precise and discrete, like those of the accessions in the Research Document Collection included in Appendix B. Instead, ACHRE series descriptions include background information on the activity and explain relationships to other groups of records, as well as describe record format and contents. The following section describes how to use this document and other resources to find ACHRE records, and the second section provides descriptions of the ACHRE series, files, and subfiles.

Finding Aids

Access to ACHRE records is provided through a layered series of finding aids that provide increasingly detailed information as one descends through the layers. This volume, *Sources and Documentation,* is the highest level finding aid, and hence is the most general. The most specific are the box inventories available for the collections submitted to the National Archives collections. In between

are detailed accounts of series, followed by accounts of the files that comprise them, and then of subfiles and their components, if any.

Two general areas of complexity affect ACHRE records. The first concerns variation in media. During its work process, ACHRE made little if any distinction among paper, electronic, audio, video, or other formats, using them interchangeably as appropriate. In the work context, records in different media often were complementary and used together to create a work product. At the National Archives, however, media is more important than informational context,[15] because different media are stored in different collections. In order to retain the informational relationship between the media, this document describes them together and explains their relationships.[16]

The second area of complexity concerns the relationship between staff work and project records. The ACHRE staff was a highly diverse, collegial, nonhierarchical group of workers who were individually responsible for some tasks but also participated in a series of research, writing, and functional teams. The team approach had significant impact on the ACHRE work product, but it was sometimes difficult to document. To the extent feasible, the organization of the records has been reconstructed to reflect the work process as it occurred and not the disorganization of the papers left on the ground after the people left. This has not been completely successful--the records of some projects appear evanescent; where there has been difficulty in reconstructing an activity, the description includes the names of those involved whose research papers may include some information about the activity.

Structure and Contents

The Advisory Committee's records were divided into 12 series: Administrative, Committee Activities, Communications, Data Collection, Information Services, Public Access, Records Management, Reports, Research Collection, Research Project, Staff Operations, and Staff Research. Each series had component files, which in turn had component projects. The file organization is listed in full in Attachment 7, ACHRE Records Collection Structure.

Administrative Series

Most administrative records are not permanent records (routine and facilitating records covered by the General Records Schedules, such as those dealing with budget, supplies, and personnel), but administrative and procedural guidance, correspondence related to the administrative management of the Advisory Committee, summary information on ACHRE's technological infrastructure, contract information services, and other related information has been included to complete ACHRE's management history. These records are divided into two files, Administrative Management and Technology.

Administrative Management File

This file includes such records as the office manager's handbook and other administrative and procedural guidance for staff activities, copies of key memoranda, and correspondence related to the administrative management of ACHRE.[17]

Technology File

This file contains summary information on ACHRE's technological infrastructure, contract information services, documentation and records of the database providing staff technology support, and

other related information. There are two subfiles, Infrastructure Records and Technology Corner Database.

Committee Activities Series

This series contains all records of the Advisory Committee proper (that is, it contains no staff initiated activities).

Chair File

Chronological files and other records of Ruth Faden, ACHRE chair.

Document Repository File

These papers describe the central repository of shared electronic copies of core ACHRE documents (meeting documents, report drafts, etc.), exclusive of the documents themselves, which are arranged with their appropriate series.

Meetings File

This file contains the official records of Advisory Committee meetings, including agendas, briefing materials, minutes, audio and visual recordings, transcripts, submitted documents, testimony, and other materials, but does not include logistical arrangements and other related information. To the extent that the latter are preserved, they are included in the ACHRE Administrative Series and the ACHRE Staff Operations Series. The Meetings File is divided into two subfiles--Full Committee Meetings and Small Panel Meetings. As part of its public outreach program, the Advisory Committee held one full committee meeting and four small panel meetings outside Washington to hear testimony from citizens who could not travel to Washington to make their presentations. Attachment 9 contains a complete listing of ACHRE meetings. Appendix F describes the documentation available for each meeting, and includes copies of the agenda, the tables of contents for the briefing books, and lists of those who presented testimony.

Members File

This file contains general correspondence with ACHRE members not related to specific projects or activities. Attachment 8 is a roster of the members.

Subcommittees/Projects File

Advisory Committee subcommittees were established in three general areas: (1) policy, conceptual development, and other programmatic concerns (e.g., Scope and Priorities); (2) research direction (e.g., Cold War Data); and (3) project supervision (e.g., Subject Interview). Subcommittees met both in connection with general ACHRE meetings, and through teleconference; minutes of meetings were kept by the assigned staff liaison. The records in this file reflect the activities of the subcommittees only; the records of the activities they directed or managed are arranged in their respective series and files, chiefly in the ACHRE Research Project Series. Attachment 10 lists the subcommittees and their Advisory Committee and staff memberships.

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Communications Series

These records document the Advisory Committee's relations with external organizations and individuals. They include correspondence, copies of press releases, and subject files documenting ACHRE's general interactions with other federal agencies, the Congress, the Executive Office of the President, outside organizations, the media, and members of the public; planning efforts and information and contact tracking activities; information about the Advisory Committee and related activities collected from the press and other media; and related information.

Agency Relations File

This file contains general correspondence with officials of federal agencies.

Communications/Outreach Team File

This file contains the records of the staff group coordinating communications with the media and the public.

Congressional Relations File

This file contains general correspondence with members of Congress.

Contact Tracking File

This file contains the documentation and the records of the database used to collect information about correspondents, interviewees, and other sources of information.

Information Requests File

This file documents the electronic mail box that received Internet inquiries for information about ACHRE activities.

Media Relations File

This file records relations with the press and other media.

News Clippings File

This file contains copies of press and other media reports on ACHRE activities and other items of research interest (Clippings subfile), as well as lists and indexes of a larger number of news reports contained in the News Clippings subfile.

Public Inquiries File

This file contains correspondence with members of the public requesting information about ACHRE, its activities, and its findings and reports.

University Relations File

This file documents various ACHRE-university relationships, including contacts and site visits.

White House File

This file contains general correspondence with staff of the Executive Office of the President.

Data Collection Series

These files document the process of collecting records and other primary documentation concerning government and other programs, policies, and practices in human subject research, research involving radiation, and related research areas. The series includes correspondence, request and response records and tracking information, site visit reports, and supporting materials. The series does not contain information on secondary documentation, except as it was the result of data collection; that information is contained in the ACHRE Information Services Series and the ACHRE Records Management Series.

Agency Data Requests File

This file consists of two subfiles: (1) the Agency Data Requests subfile, which contains correspondence documenting requests by ACHRE to federal agencies for specific information, documents, access, and other research support, and the agencies' responses; and (2) the Agency Data Requests Tracking Database subfile, which documents the database used to record, process, and track these requests and responses. The Agency Data Requests subfile is arranged with the ACHRE Records Management files, Accession and Disposition File, with which it became functionally merged.

Agency Liaison File

As noted above, the original data collection arrangements involved the use of staff liaisons assigned to monitor ACHRE research interactions with specific agencies, a procedure subsequently largely superseded by the Agency Requests Tracking process. Substantial coordination continued, however, and this series documents both the earlier and later stages in liaison activities. Separate subfiles were established for each of the main agencies: CIA, DOD, DOE, DHHS, VA, NASA, and later NRC.

Site Visits

This file contains correspondence, notes, reports, and other documents concerning site visits by ACHRE staff members to agency offices and other records repositories for the purpose of surveying holdings, reviewing records, and selecting documents of research interest for the ACHRE Research Document Collection. This series is supplemented by the research files of the individual staff members who made the visits (see ACHRE Staff Research Series).

Information Services Series

This series records information research and requests concerning secondary documentation, primarily online searching, document retrieval and delivery, and related information. Records are

arranged in one file, Research Requests. This series is supplemented by the ACHRE Records Management Series, Publications Collection Database File.

Public Access Series

These papers document the Advisory Committee's efforts to provide information to the public. They include planning, design, and implementation records for online access to electronic information; documents and services available in the ACHRE Public Reading Room; and related information.

Gopher File

This file contains information on the text-based Internet site created by ACHRE to provide public access to full-text records of its meetings, indexes to the documents it collected and the experiments it identified, and other information. The paper series (Project Records subfile) contains only descriptive information. The parallel electronic series contains a full set of the information available in the gopher (ACHRE Gopher Database subfile).[18]

Public Access Services File

The file contains records of requests for Public Reading Room services, including research requests, correspondence, and research reports.

Public Reading Room File

This file contains a complete set of the documentation available in the Public Reading Room.

World Wide Web File

This series and its structure and depository components are similar to those of the Gopher File, except that it documents ACHRE's graphical (WWW) site.

Records Management Series

This series documents the Advisory Committee's information accessions, inventory, and processing program, and includes records of document receipts for all media, descriptions and inventories for collections, planning, design, standards, and implementation information for online indexes, and related records. It also includes copies of agency electronic indexes to documents deposited with ACHRE.

ACHRE Indexes File

This file documents the database used as a record of data standards and a look-up table for other ACHRE databases, including lists of identified acronyms, important individuals, isotopes, and other information. Some of this information is available in this volume--see attachments 1, 2 and 3.

DNA Library File

This file contains information on the database translation of information collected on human radiation experiments by the Defense Nuclear Agency. Copies of the original database as deposited with ACHRE are part of the ACHRE Research Collection Series, Archives File.

Document Collection File

This file contains information on the main database controlling receipt, processing, and indexing for the Research Document Collection--the main body of information received by ACHRE in support of its research. The file includes records of government and nongovernment document collections received and accessioned, descriptions and inventories of collection contents, descriptions of documents identified as of significant research interest, and other information. The records indexed by the database are included in the ACHRE Research Collection Series, Archives File; the reports issued by the database on accessions are collected in this series, Records Accession and Disposition file, Accessions Register subfile, as well as included with the accessions (at Research Collections Series, Archives File, Collections subfile). There is no central collection of paper copies of the database reports concerning documents, but these are included with the described documents in the Research Collections series, Archives File, Documents subfile. For further information, see those series and files. Attachments 4 and 5 illustrate the Accessions Record and Document Description forms for this database.

Document Processing File

These records concern the process of assembling, processing, and maintaining the research document collection and related information.

Information Management Database File

These records include documentation of the database used to describe ACHRE records being prepared for deposit with the National Archives.

Publications Collection File

This file contains documentation and records of the main database controlling requests for and receipt, processing, and indexing of secondary sources of information. Information includes a bibliographic listing of items requested and received, loans tracking, and other information. A complete bibliography of items requested for research or used in the writing of ACHRE's final report is included in Appendix C, Bibliography of Secondary Sources Used by the ACHRE. For information on the collections deposited with the National Archives, see ACHRE Research Collection Series, Library File.

RECC Library File

This file contains information on the database translation of information collected on human radiation experiments by DOD's Radiation Experiments Command Center, the contractor-operated group responsible for responding to the President's January 17, 1994, directive and for supplying ACHRE with

DOD information. Copies of the original database as deposited with ACHRE are part of the ACHRE Research Collection Series, Archives File.

Records Accession and Disposition File

This file contains correspondence and other records of the receipt and disposition of research materials collected for or deposited with the Advisory Committee and accessioned into the Research Document Collection. There are two subfiles: (1) the Accessions and Disposition file, chiefly containing letters of transmittal, accompanying inventories or descriptions, and other depository documents; and (2) the Accessions Register, the collection of accession records and inventories created and maintained in the Document Collection database, which serves as a catalog for the collection. The Accessions and Disposition file also contains the records of the Agency Data Requests file (Data Collection Series), as the accessions and requests processes merged during this operation.

Reports Series

This series contains the documentation of the development, writing, approval, and issuance of the Advisory Committee's interim and final reports. The records include planning, organization, and policy documents, background materials, drafts submitted to members of the Advisory Committee, committee member, staff, and agency comments, development papers, and other information, as well as copies of the reports and companion volumes as submitted and transmittals.

Final Report File

This file includes records of the creation of ACHRE's final report and companion volumes. Documentation is available on planning, organization, and policy development, background materials, a complete set of drafts as submitted to the members of the Advisory Committee, committee, staff, and agency comments, development papers, copies of all documents cited arranged according to chapter, and other information, as well as copies of the report and companion volumes as submitted. The file is organized into three subfiles: (1) Drafts and Comments; (2) Planning and Organization; and (3) Citations.

Interim Report File

This file contains the records concerning the ACHRE interim report and is similar in content and structure to the Final Report File, except that there are no collections of cited documents.

Research Collection Series

This is the collection of primary and secondary sources assembled by the Advisory Committee and is composed of the Archives File and the Library File.

Archives File

The Archives File consists of the Collections subfile, which contains records deposited by government agencies, retrieved from government and other repositories by ACHRE staff, or contributed by members of the public, and the Documents subfile, which contains documents from the Collections

subfile selected for specific description because of their research value. With rare exception, the Documents subfile contains copies of documents, leaving the accessions in the Collections subfile intact. Also, to the extent feasible, there is a separate document description for each primary document cited in the final report. A brief description of each accession is included in Appendix B, and a brief description of each separately described document or document set is included in Appendix E.

Library File

The Library File consists of (1) ACBM Minutes subfile, containing the Advisory Committee's unique collection of the records of the meetings of the AEC's Advisory Committee for Biology and Medicine; (2) the Articles and Extracts subfile, containing the collection of journal articles and other documents collected at the request of ACHRE members and staff in support of research on human radiation experiments, including historical information, descriptions of experiments and experiment reports, articles in moral philosophy, scientific reports, and other information; (3) Congressional Hearings and Reports, ACHRE Collection of often fugitive documents rending the history of public attention to radiation hazards, human experimentation, and related topics; (4) Joint Panel on Medical Aspects of Atomic Warfare, a compilation of minutes and other documents of this important NME/DOD group; (5) Los Alamos H-Division Reports, contains collection of reports from LANL's Health Division (some of these are subject to Privacy Act protection); (6) the Monographs and Other subfile, containing a small collection of historical and philosophical texts, video documentaries, and other information; and (7) School of Aviation Medicine, containing hard copy of SAM histories now available elsewhere only on microfilm. The ACHRE Bibliography is included in Appendix C.

Research Project Series

This series is the most heterogeneous in the collection. It contains documentation of formal research projects pursued by staff and ACHRE members, and of the shared information resources created and used in pursuit of those projects. It includes records of various staff research teams, specialized research collections, identified experiments, interview programs, research studies, and related information. Some additional information about staff organization is available in the ACHRE Staff Operations Series; Attachment 11 contains information on the membership of staff teams.

ACBM Minutes File

Documentation and records of the database indexing the minutes of the Atomic Energy Commission's Advisory Committee for Biology and Medicine.

Classification Team File

Records of the staff group monitoring classification and declassification issues.

Congressional Hearings File

Documentation and records of the database indexing hearings and reports of the U.S. Congress concerning topics related to ACHRE research interests.

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Contemporary Practices File

Records of the staff group researching current ethical practices in experimentation.

Ethics Mapping Team File

Records of the staff group tracking the history and policy contexts of government discussions of ethical issues concerning human experimentation.

Experiments File

This is the collection of information ACHRE assembled about individual human radiation experiments. It is composed of two subfiles: (1) Experiment Dockets, which includes experiment descriptions (database records) and supporting information; and (2) Experiment Index Database, which contains documentation and records of the database indexing information collected on individual human radiation experiments, including staff comments and analyses. Brief descriptions of all experiments identified are contained in Appendix D; for further information, see the section on the Experiments File in this chapter, below.

History of Ethics File

Records of the staff group tracing the history of ethical consideration of human experimentation.

History of Practices File

Records of the staff group tracing the history of experimental practices with specific reference to human experimentation.

Information Management/Review Team File

Records of the staff group coordinating the review and evaluation of research information and sharing that information among the research staff.

Institutional Mapping/Management Theme File

Records of the staff group performing case studies on the programs and management practices of several institutions that sponsored human radiation experiments.

Interview Program File

These are the records of research interviews conducted by ACHRE staff members and others, as described in chapter 4 above. The records are divided, as was the program, into three parts: (1) Oral History Project, (b) Targeted Interview Project, and (c) Other Interviews.

National Security File

Records of the staff group researching the importance of national security in the conduct and suppression of information about federally-sponsored human radiation experiments.

Power Differentials File

Records of the staff group researching the potential significance of social, economic and racial distinctions in the selection of experimental populations in the identified human radiation experiments.

Project Discussion Databases File

These records document the topical databases created to provide discussion venues for staff on specific research topics. Five discussion databases--Biomedical, Intentional Releases, Los Alamos, Oak Ridge, and Total Body Irradiation (TBI)--were originally established. Of these, Biomedical and Los Alamos were not used; Oak Ridge was used to assemble information through winter 1995 and then not used; TBI and Intentional Releases were used to assemble information about their respective topics rather than conduct staff discussion.

Remedies File

Records of the staff group analyzing the various options available to the Advisory Committee for its recommendation of government response to the history of federally sponsored human radiation experiments.

Research Proposal Review Project (RPRP) File

These are the records of the contemporary ACHRE study evaluating current institutional practice regarding review of proposed experiments involving human subjects (see chapter 4 above). The records are arranged in three subfiles: (1) Administration and Management, containing records of RPRP design, policy, administration and management; (2) Proposals and Reviews, containing the proposals reviewed and the resulting evaluations; and (3) RPRP Databases, containing documentation and records of the five databases used to record, evaluate, and analyze information collected and reviewed during conduct of the RPRP. The databases were: Proposal Review--Nonradiation; Proposal Review--Radiation; Proposal Review--Radiation Risk; Proposal Study Tracking--Archive; and Proposal Study Tracking.

Resources and Bibliography File

Documentation and records of the database used to collect information on resources of potential interest to ACHRE research staff, including site visit reports, resource evaluation, and other information.

Volume 2

Risk/Benefit File

Records of the staff group that gathered information on the risks and benefits of experiments using human subjects.

Subject Interview Study (SIS) File

Records of a contemporary study, using interviews and medical records, of what information patients are given about experimental treatments and experiments, and how well they understand what they are told (see chapter 4). The records are arranged in four subfiles: (1) Administration and Management, containing records of SIS design, policy, administration and management; (2) Contractor Records, containing records of the contractor that carried out a large part of SIS; (3) Interview Records, containing the records of the SIS interviews and other information; and (4) SIS Databases, containing documentation and records of the four databases used to record, evaluate, and perform statistical analysis on information collected and reviewed during conduct of the SIS. The databases were: Hospital Records (SIS); Subject Interview--Discordant; Subject Interview Survey; and Subject Interview Tracking.

Timeline File

Documentation and records of the database used by staff to create a unified chronology of events of research interest to ACHRE.

Staff Operations Series

This series documents the organization and management of ACHRE staff. It includes the chronological correspondence of the executive director, records of executive management contacts with agencies and other organizations, staff assignments and organization, staff discussion groups, staff meetings, and records of management committees and actions.

Coordinating Group File

Records of the staff group, led by the chair, that conducted the initial research planning and organization activities.

Executive Director File

Chronological files and other records of the ACHRE executive director.

Management Group File

Records of staff policy group that, led by the chair, managed ACHRE activities.

Organization File

Records of staff operations, including work organization and assignments, memoranda, and related information. Attachment 11 contains a summary of staff activities, teams, projects, and functional groups.

Staff Discussion Database File

Documentation and records of the database used by staff for discussion of administrative, management, and research topics of general interest.

Staff Meetings File

Agenda and minutes of the weekly staff meetings.

Staff Research Series

This series contains the records created by individual staff members in support of their particular research responsibilities that are not part of a formal research project (for which see ACHRE Research Projects Series) or the creation of the ACHRE reports (for which see ACHRE Reports Series). This series is comprised of a file for each staff member with permanent records, and generally includes information on research report development and writing, correspondence, research papers, notes, electronic mail files, and other related information. Each file is organized using a standard structure: General Correspondence; Research Correspondence; Project Work; Reports Submitted to Management or Committee; Work on Interim Report, Final Report or Companion Volumes; Supplemental and Reference Information Used in Research; and Any Other Permanent Records.

Email Chronological Files

Each staff member's electronic mail records were printed in chronological order, accompanied by a print of any categorized view they may have used showing their organization of the messages. Electronic copies of electronic mail were not preserved. Attachment 12 is a roster of staff members, including administrative staff. Not all staff members have individual files.

EXPERIMENTS FILE

Overview

The list of experiments assembled and described by the Advisory Committee is not an exhaustive list of instances in which human beings were deliberately exposed to ionizing radiation. Collection of experiments began with those explicitly identified in the Advisory Committee's charter, specifically:

> (1) The experiment into the atmospheric diffusion of radioactive gases and test of detectability, commonly referred to as "the Green Run test," by the former Atomic Energy Commission (AEC) and the Air Force in December 1949 in Hanford, Washington;

> (2) Two radiation warfare field experiments conducted at the AEC's Oak Ridge office in 1948 involving gamma radiation released from non-bomb point sources at or near ground level;
> (3) Six tests conducted during 1949-1952 of radiation warfare ballistic dispersal device containing radioactive agents at the U.S. Army's Dugway, Utah, site;
> (4) Four atmospheric radiation-tracking tests in 1950 at Los Alamos, New Mexico . . .

To these initial instances, the Advisory Committee added those identified by Representative Markey in 1986 and described in *American Nuclear Guinea Pigs*, the report of the hearings he sponsored.[19] Also added were instances specifically identified by the agencies through the search process initiated by the President, those identified by Advisory Committee staff in the published literature, and those described by individuals who came forward with information for the Advisory Committee.

Documentation for experiments varies considerably in both quantity and quality. Some experiments are represented by a journal article only; others have significant primary documentation; still others have been the subject of secondary study; and some are known only by title from agency lists. Copies of all identified documents relevant to each specific experiment have been collected in separate dockets and arranged by an ACHRE *experiment number* in the Experiments File in the Research Project Series. Almost 4,000 separate experiments have been described.[20]

Sources of Agency Experiment Information

The following are descriptions of sources of experiment information used by the Advisory Committee to supplement the sources known at its inception and mentioned in its charter. Some sources remained incompletely analyzed at the end of the Advisory Committee's tenure, and information about future research using those sources is given. (See chapter 2 above for further discussion of search process and sources reviewed.)

Department of Energy

The two initial sources of information about experiments sponsored by DOE and its predecessors were a Congressional staff report sponsored by Representative Edward J. Markey in 1986,[21] in which 67 human radiation experiments were described, and documents describing an additional 48 experiments released by Secretary of Energy Hazel O'Leary at a press conference on June 27, 1994. Copies of the supporting documents for the Markey report that were used to describe the experiments for the Experiment Index database are contained in ACHRE accession CON-030795-A; documents describing the second set of 48 experiments are contained in ACHRE accessions DOE-071394-A, DOE-072194-A, and DOE-103194-A. Additional information about these experiments is contained in ACHRE accessions DOE-051094-A, DOE-070194-A, DOE-071695-A, DOE-072294-A, DOE-082294-A, DOE-082294-B, and DOE-101194-A. Additional experiments were identified in the report issued in February 1995 by DOE's Office of Human Radiation Experiments.[22]

Department of Defense

The Army, Navy, and Air Force provided lists of experiments and some background documentation (including published articles). Information about Army experiments is contained in

ACHRE accession DOD-122394-B. The main body of information about Navy experiments is contained in ACHRE accession DOD-071694-A, consisting of detailed information and abstracts arranged by medical facility. Information on Air Force experiments is contained in ACHRE accessions DOD-121994-C, DOD-010395-B and DOD-022395-A. Additional information on DOD experiments is contained in DOD-071894-A and DOD-082694-A.

Department of Veterans Affairs

At the request of the Advisory Committee, VA created lists of VA-sponsored radiation research using human subjects. The lists have three components (1956-1968, 1969-1973, and 1987-1992) and comprise ACHRE accessions VA-092694-A and VA-100494-B. Information for the period 1956-1973 was drawn from the annual reports to Congress, *Medical Research in the Veterans Administration,*[23] and includes (as available) the name of the facility where the experiment took place, the title of the study, the name of the principal investigator, and the dates of the study. For a substantial number of these studies only the name of the facility and the title of the study are indicated, with the date assumed from the date of the report in which the entry occurred. There are apparently no central sources of similar information for the period 1974-1986. VA requested a search of the National Technical Information Service (NTIS) database of government and contractor reports, but this yielded only a single study. For the period 1987 forward, VA has maintained a Research and Development Information System, and from that system provided the Advisory Committee with a listing of radiation experiments records containing information similar to the earlier records, but without dates. The total number of experiments identified by VA in the period 1956-1992 is over 3,500.

National Aeronautics and Space Administration

Initially, human radiation experiments conducted by NASA were identified from the literature (see below). Subsequently, NASA identified additional experiments and submitted database entries for those that matched ACHRE's Experiment Index database records.

Department of Health and Human Services

As with NASA, human radiation experiments sponsored by DHHS, its components, and predecessors were initially identified through the literature. The size of NIH's program of sponsored extramural research, and the fact that the substantive records of such research were held by the grantee institutions, precluded a comprehensive analysis of the program.[24] At the Advisory Committee's request, however, NIH created a database recording information about its intramural research called the Clinical Center Intramural Protocol database (or the Protocols by Institute database). The database was completed in February 1995 and contains over 5,000 entries for the period 1953 through November 1994.[25] Staff were unable at that late date to do a deep analysis of the database contents, and no additional entries for the Experiment Index were created; some research on subject consent was done using selected protocols.

Nuclear Regulatory Commission

The long-sought records of the AEC's isotope distribution program (see chapter 2, above) and the successor isotope licensing program produced several experiments of research interest, particularly with subject populations of children, pregnant women, or prisoners. These records became available only in February 1995, however, and could not be thoroughly reviewed by staff.

Scientific Literature

The staff of the Advisory Committee supplemented the information provided by the agencies through searches in bibliographies and bibliographic indexes. The primary indexes used for identifying articles and reports were *Index Medicus* (the print version for pre-1966 material and the MEDLINE database for post-1966) and the online version of *Nuclear Science Abstracts,* a comprehensive index to nuclear science and technology literature covering the years 1948 through 1976. MEDLINE is produced by the National Library of Medicine (NLM) at NIH and *Nuclear Science Abstracts* by the Office of Scientific and Technical Information at DOE. Other online databases that were searched include BIOETHICSLINE and HISTLINE (parts of MEDLARS, of which MEDLINE is also a component), and LEXIS-NEXIS, a commercial database service.

The bibliographic indexes were used in conjunction with close analyses of several printed bibliographies. Between 1949 and 1955, AEC produced accounts of its isotope distribution program that included citations for publications resulting from the research in which the isotopes were used.[26] The five-year summary substantially incorporates information contained in the three-year summary and was used to construct a table of experiments using human subjects from which those with identifiable citations were selected for follow-up analysis.[27] The eight-year summary does not incorporate much information from the five-year summary, but does include a more extensive bibliography, from which items involving fallout-related isotopes were selected for follow-up analysis. In addition to these accounts of the AEC isotope distribution program, the following bibliographies were consulted:

U.S. Department of Health, Education, and Welfare. Public Health Service. Food and Drug Administration. Bureau of Radiological Health. *Low and very low dose influences of ionizing radiations on cells and organisms, including man: a bibliography.* Benjamin P. Sonnenblick [comp.]. Rockville, Maryland, February 1972. (DHEW publication (FDA) 72-8029; Contract PH 86-67-133)

U. S. Department of Agriculture. Agricultural Research Service. *Annotated bibliography of strontium and calcium metabolism in man and animals.* Robert H. Wasserman, Cyril L. Comar [comps.]. Washington, Agricultural Research Service, U.S. Department of Agriculture, 1961.

Finding Aids

Experiment descriptions and staff comments were recorded in the Experiment Index database.[28] The records contain detailed information (to the extent available) on the principal investigator and other research staff involved, the location and sponsorship of the experiment, type of radiation used, characteristics of the subject population, information about consent, and categories and other descriptors assigned. The database was the primary indexing and retrieval mechanism for this collection. Attachment 14 is a copy of the Experiment Record form. Brief descriptions of the experiments are included in Appendix D, with indices to several primary data elements.

ACHRE BIBLIOGRAPHY

The ACHRE Bibliography is the listing of the collection of non-records information sources used by the Advisory Committee in the course of its research. The collection consists of over 2,600 titles, including monographs, government reports, congressional documents, journal articles, and reference

materials. The bulk of the collection is journal articles, for which a separate records series was established. The complete bibliography is included in Appendix C.

OTHER INFORMATION COLLECTIONS

In addition to these major collections, ACHRE assembled some smaller collections that may also be useful to the researcher. The ACHRE communications group established a records series for news items of significance to ACHRE's research interests as well as reflecting ACHRE activities. In addition, the group created a substantial database indexing both these and similar items for which it had no copies. A second source of information is the Resources and Bibliography database, in which a variety of research findings, trip reports, collection analyses, and other items was collected. A third source is the sets of agency histories and minutes that were assembled, some of which are unique to the Advisory Committee's collections. Among these are the minutes of the AEC Advisory Committee on Biology and Medicine, a collection of congressional hearings and reports, and a set of tables of contents to recently declassified Defense Nuclear Agency organizational histories.

ACHRE GOPHER AND WORLD WIDE WEB HOME PAGE

A gopher is an electronic information collection or "site" that contains files arranged to facilitate search and retrieval; such sites are accessible through the Internet. ACHRE created a gopher site to provide access to information about the Advisory Committee's activities, findings and reports. Citizens who used the gopher could print these files directly or download electronic copies to their own computers.[29]

Subject to the limitations of time and resources, the gopher contained complete records of Advisory Committee actions as approved; complete descriptions of the primary research materials discovered and analyzed; complete descriptions of the print and non-print secondary resources used by the Advisory Committee; a copy of the Interim Report of October 21, 1994; a copy of the Executive Summary of the final report; and other information. Some information was presented in summary rather than full form. For example, the gopher did not contain information on government records at the document level, although it did contain information about how to get such information. Similarly, it identified but did not contain complete descriptions of the experiments selected by the Advisory Committee as being of research interest. The gopher will be available locally at the National Security Archives following completion of the Advisory Committee's tasks.

World Wide Web (WWW) is an information search and retrieval facility similar to gopher, but providing a graphical (image-based) interface that many find easier to use. ACHRE created a WWW home page as a front end to the gopher.

NATIONAL ARCHIVES DEPOSIT

The Advisory Committee recognized from the beginning that the greater part of the information it collected would be publicly available at the National Archives. Consequently, conscious efforts were begun early to assure the preservation of this material. These efforts chiefly included the information management systems described above, combined with a commitment to the requirements of those systems by the members and staff of the Advisory Committee.

The archival requirements imposed on government activities such as ACHRE are outlined in the National Archives publication *Managing the Records of Temporary Commissions,*[30] which describes permanent and temporary records and explains the effect of the Federal Advisory Committee Act (FACA)

in the advisory committee process and its record keeping. In general, the scope of records that are permanent is broader for FACA activities that it is for other government operations, chiefly due to the public release of information that might not be preserved in most government offices but that, because of its release, becomes part of the permanent record.

Advisory Committee staff began working with National Archives staff in February 1995 and over the following months developed a program that recognized both the importance of the ACHRE collections and the difficulty of the depository process for and activity in the last stages of report writing. In general, the ACHRE-NARA agreement contained the following points:

- The Research Document collection would be included in the deposit in its entirety, despite the fact that 80 percent of it or more duplicated materials in other government records collections, including some at the National Archives itself.

- Records would go directly to the National Archives, rather than to the Washington National Records Center, and would be processed for public access as quickly as possible.

- Permanent electronic records would be deposited in ASCII format only, and

- The National Security Archive at George Washington University was authorized to receive original format copies of several Lotus Notes databases and the gopher and WWW sites.

The third of these points of agreement was the most problematic, mitigated only slightly by the fourth point. ACHRE staff emphasized to NARA, and NARA staff recognized, that the original format databases contained a wealth of contextual information that could not be replicated in an ASCII conversion and would therefore be lost. Unfortunately, however, NARA is legally obligated to make its holdings available to the public, and it is unable either to preserve technologies or to migrate fully functional systems in perpetuity. Consequently, permanent electronic records are defined as ASCII records, so in order to deposit permanent electronic records, ACHRE had to deposit ASCII records.

To assure that as much information as could be preserved was deposited, ACHRE staff proposed and NARA staff agreed to provide electronic copies of records in a format that could be used to recreate the Lotus Notes databases and to make the deposit on CD-ROM. The format that was adopted included electronic records with tagged fields, hard copy prints of all forms, views, and the Lotus Notes synopsis (i.e., automated design) document, and full database documentation.[31] Making the deposit on CD-ROM relieved ACHRE staff of the logistical difficulties of creating copies on polyester tape, as is usually required by NARA, and it provided NARA with a less volatile electronic copy and original format Lotus Notes, gopher, and WWW applications.

As a result, researchers will not be able to retrieve ACHRE information (formerly controlled by Lotus Notes databases) as easily or precisely as ACHRE staff could, but reasonable facsimiles of such access will be available. The appendices to this volume, for example, include subject indexes to accessions, documents, and experiments; and the Research Collection series includes and accession register that replicates the contents of records in the Document Collection database. Reading the records in hard copy is not as facile a method of access as full-text electronic searching, but the information is there. And those who wish to reconstruct the databases will find that the tools to do so also are available in the materials at the National Archives.

Two final notes should be made. First, the Advisory Committee's records include a substantial volume of records that were identified by agencies as either containing information protected by the Privacy Act (chiefly DOE) or potentially containing such information (chiefly DOD). Use of such records by members of the public must be preceded by National Archives review, and this may not be done until access is requested, so public access in those instances may be delayed somewhat. Second, at the close of the Advisory Committee's business, a number of requests for declassification of records were still outstanding at agencies. ACHRE arranged with NARA for a member of the NARA staff to be identified to the agencies as the point of contact for declassification. ACHRE finished its work in the expectation that those items still remaining to be declassified would be processed by the agencies and included with the ACHRE document collection by the National Archives. The Advisory Committee's records at The National Archives will be part of RG 220, Presidential Committees, Commissions, and Boards.

ENDNOTES

1. For further information on electronic information management, see that section in this chapter and Appendix G.

2. Approximately half of the Research Document collection was assembled between April and early December 1994, chiefly from agency searches conducted under the Presidential mandate.

3. See Attachment 11, ACHRE Staff Organization, Agency Document Search Teams.

4. Agency request documentation is contained in the Agency Data Requests File and the Agency Data Requests Tracking Database File in the ACHRE Data Collection Series; for further description, see this section below.

5. In the context of the ACHRE information collections, a primary research document is one that was retrieved through the records search process; such documents were usually, but not always, unpublished. This is in contrast to most published documents, which were largely retrieved through bibliographic utilities, or ACHRE documents, which were created in the process of the Advisory Committee's work. The distinction is important because it largely determines where in the ACHRE information collection a particular document is arranged. In addition, most documents in the second category were generally used only by the requestor (that is, they usually were not reviewed).

6. For additional information, see Appendix G, Technology Note.

7. Attachment 4 is the Accessions Record form; Attachment 5 is the Document Description and Index form.

8. These identifiers later were used as references for document citations in research reports; for further information, see the section on the Research Document Collection.

9. SIS's use of Lotus Notes applications supplemented and fed data to programs run at computer facilities at Johns Hopkins University.

10. The exception being, of course, the case of an individual who contributed records relating to his or her own experiences; but as these cases were rare and as repositories were defined as institutions for administrative reasons, all documents deposited by individual persons were arranged under the rubric *Individual*.

11. The ACHRE *accession* is, therefore, is similar to the federal records center *accession*; see chapter 2 above.

12. Any subsidiary record such as an inventory or document description was given a numerical extension to this code--inventories, contents descriptions, or staff comments were coded -00000, document descriptions -00001 forward--resulting in codes of the form *DOD-061794-C-00254*, usually cited without the extra 0s.

13. DOD apparently did not review the records sent to the Advisory Committee for privacy concerns as most collections arrived with the following note in the transmittal letter: "The Committee staff should thoroughly review the material and redact Privacy Act information prior to releasing any information to the public."

14. The availability and use of classified information is discussed in chapter 2 of this report.

15. This is largely for reasons of preservation, but as physical access to different media is not unified, it does present barriers to informational access.

16. Information about electronic records, including database applications, may be found in Appendix G, Technology Note.

17. Staff communications, such as the All Staff Discussion database or all staff program memoranda are part of the ACHRE Staff Operations Series.

18. Attachment 13 is an outline of the information contained in the gopher and World Wide Web Internet sites. A copy of the gopher was given to the National Security Archive at George Washington University, which is considering providing Internet access to it.

19. U. S. Congress. House of Representatives. Committee on Energy and Commerce. Subcommittee on Energy Conservation and Power. *American Nuclear Guinea Pigs: Three Decades of Radiation Experiments on U. S. Citizens; Report..November 1986.* Washington, U. S. Government Printing Office, 1986. For further information, see the section on DOE, below.

20. There are numerous examples of similarly titled experiments performed by the same principal investigator in each of several sequential years. These have been listed separately as information was insufficient to determine whether these were instances of annual review and renewal (in which case they were separate experiments) or of multi-year funding (in which case they were essentially the same experiment).

21. *American Nuclear Guinea Pigs,* op. cit.

22. U. S. Department of Energy. Assistant Secretary for Environment, Safety, and Health. Office of Human Radiation Experiments. *Human Radiation Experiments: the Department of Energy's Roadmap to the Story and the Records.* February 1995.

23. The reports, which began in 1957, were prepared by VA's Department of Medicine and Surgery for the House Committee on Veterans' Affairs. Extracts are available in ACHRE accession VA-071894-A.

24. More recent information on DHHS-sponsored research is included in the CRISP (Computer Retrieval of Information on Scientific Projects) database, which contains records for all extramural projects and for NIH and ADAMHA (Alcohol, Drug Abuse and Mental Health Administration, later merged into NIH) intramural projects. This database was used by ACHRE in the proposal review project; see chapter 3 above.

25. ACHRE accession HHS-012795-A contains a tabular printout of these records arranged by institution and containing the protocol number, the termination date, the protocol title, the name of the principal investigator and whether or not radiation was used in the research.

26. U. S. Atomic Energy Commission. *Isotopes: A Three-Year Summary of Distribution with Extensive Bibliography* (1949); *Isotopes: A Five-Year Summary of Distribution with Bibliography* (1951); and *Isotopes: An Eight-year Summary of Distribution and Utilization with Bibliography* (1955).

27. ACHRE No. ACHRE-102094-A

28. Attachment 14 is an illustration of the Experiment Index form.

29. Attachment 13 is an outline of the information available from the gopher.

30. U.S. National Archives and Records Administration. Office of Records Administration. *Managing the Records of Temporary Commissions.* National Archives and Records Administration Instructional Guide Series. Washington, D.C., 1989

31. Apart from the electronic records themselves, the descriptive information for each database forms part of its records in the series in which it is arranged.

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ATTACHMENTS

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Attachment 2	Person Listing
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Attachment 5	Document Description and Index Form
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Attachment 7	ACHRE Records Collection Structure
Attachment 8	Roster of ACHRE Members
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Attachment 14	ACHRE Experiment Record Form

ATTACHMENT 1

SUBJECT LISTING

49
ACHRE
Agency Histories
Animal Experimentation
Atomic Tests
Atomic Tests--Troop Participation
Auditing
Beryllium
Bikini Atoll
Biological Effects
CAL 1A2 or 3
Chi 1 2 or 3
Children
Cincinnati Experiments
Citations
Classified Research
Cloud Sampling
Coercion
Consent
Consent--Verbal
Consent--Written
Consent forms
Contract Laboratories
Contracts/Contractors
Disclosure
Dose Reconstruction
Enforcement
Equipment
Ethical Guidelines
Ethical Policies
Ethical Standards
Ethics
Experimental Equipment
Experimental Methods
Experiments
Fallout
Fallout Countermeasures
Federal Advisory Committee Act (FACA)
Federal Laboratories
Flash Blindness
Foundations
Freedom of Information Act (FOIA)
Grants/Grantees
Green Run
Guidelines/Regulations
Harm
Helsinki Code
Hp 1 2 or 3
Human Subjects
Informed Consent
Intentional Releases
Interagency Bodies
Interest Groups
Interstate Bodies
Interviews
Law & Legal Issues
Legislation
Long Range Detection
Marshall Islands
Media Relations
Medical Diagnosis
Medical Equipment
Medical Ethics
Medical Laboratories
Medical Records
Medical Therapies
Meetings
Mentally Ill (Subjects)
Methods and Techniques
Military Activities
Monitoring
Nevada Test Site (Mercury Nevada)
Nuclear Rockets
Nuremberg Codes/Trials
Occupational Guidelines
Occupational Health
Ore Alloy
Physical Measurement
Plutonium Injections
Postum
Pregnant Women
Prisoners
Privacy Act
Private Laboratories
Product
Protection/Shielding
Psychological Effects
Public Access
Race
Radiation--Ionizing
Radiation--Non-Ionizing
Radiation Injury
Radiological Warfare
Radium Loan
Reactors
Records
Recruitment
Releases of Radioactivity
Research--Nontherapeutic
Research--Therapeutic
Research Ethics
Researchers
Scientific Data
Scientific Equipment
Scientific Method
Scientific Misconduct
Scientific Standards
Secrecy
Space Flight
Spermatogenesis
Standards
Subject Consent
Subjects
Suppliers/Vendors
Suppression of Uptake of Radioisotopes
Surveys
Telemetry
Teletherapy
Testimony
Thalidomide
Therapeutic Privilege
Thorium
Total Body Irradiation
Toxicity
Training
Truth-Telling
Tube Alloy
University Research
Uranium Mining/Miners/Milling
Voluntariness
Volunteers
Vulnerable Populations
Weapons Effectiveness
Weapons Research

ATTACHMENT 2

PERSON LISTING

Abt, A.
Aebersold, Paul C.
Andrews, Gould
Archer, Victor
Bale, William
Beecher, Henry
Bierman, H. (Harry) R.
Bronk, Detlev W.
Brown, S.
Brues, Austin
Burch, George
Bush, Vannevar
Cavalieri, R.
Chodos, R.
Conant, James
Conard, Robert
Cooney, James
Dufour, J.T.
Dunham, Charles L.
Durbin, Patricia
Dyer, R. E.
Eisenbud, Merrill
Evans, Robley
Failla, G.
Fidler, Harold
Florsheim, W.
Friedell, Hymer
Gallagher, N.
Greene, R.
Gregg, Alan
Groves, Leslie
Hahn, Paul F.
Hamilton, Joseph
Hawley, Paul
Heilbronn, H.
Hempelmann, Louis H.
Holaday, Dennis
Hollaender, Alexander
Howland, Joseph
Huddleson, Edward
Hueper, W. H.
Ivy, Andrew C.
Korst, D.
Ladimer, Irving
Langham, Wright
Libassi, F. Peter
Libby, Willard F.
Lilienthal, David E.
Long, Perrin
Lorenz, Egon
Lushbaugh, C. C.
Lyon, George
Macdonald, Norman S.
Meade, R.
Miller, Earl
Morgan, Hugh
Morgan, Karl
Nicholas, Kenneth
Nichols, K. D.
Nickson, J. J.
Ogborn, R.
Oppenheimer, Robert
Parker, Herbert
Parran, Thomas
Peterson, R.
Pickering, John
Rabinowitz, J.
Reilly, W.
Repplinger, Evalyn
Richards, A. N.
Roswit, B.
Rowland, Robert
Saenger, Eugene
Schuching, S.
Scott, Kenneth
Seaborg, Glenn T.
Searle, G.
Sebrell, W. H.
Shimkin, Michael
Spencer, R. R.
Stannard, J. Newell
Stone, Robert
Taplin, George V.
Toro-Goyco, E.
Towne, J.
Turner, J.
Waldholtz, H.
Warren, Shields
Warren, Stafford
Wilson, Carroll
Wirth, John
Wohz, G.
Wolfe, Bertram

ATTACHMENT 3

INSTITUTION LISTING

Advisory Committee for Biology and Medicine (AEC/ACBM)
Advisory Committee on Isotope Distribution Policy (MED): Subcommittee on Allocation and Distribution
Advisory Committee on Isotope Distribution Policy (MED): Subcommittee on Human Applications
Advisory Committee on X-Ray and Radium Protection (ACXRP)
Agency for Health Care Policy and Research (PHS/AHCPR)
Agency for Toxic Substance and Disease Registry (PHS/ATSDR)
Air Force Special Weapons Center (AFSWC/USAF)
Air Force (DOD/USAF)
American Cancer Society (ACS)
American Institute of Physics (AIP)
Ames Research Center (NASA)
Argonne National Laboratory (DOE/ANL)
Argonne National Laboratory (DOE/ANL): Cancer Hospital
Armed Forces Medical Policy Council (DOD/OSD/AFMPC)
Armed Forces Radiobiology Research Institute (DOD/DNA/AFRRI)
Armed Forces Special Weapons Project (DOD/AFSWP)
Army (DOD/USA)
Atomic Bomb Casualty Commission (ABCC)
Atomic Energy Commission (AEC)
Atomic Medicine Division (VA)
Battelle Memorial Institute (Battelle)
Baylor University
Beth Isreal Hospital: Yamin Research Laboratories
Biomedical Division (DOE/LLNL)
Bowman Gray School of Medicine
Brookhaven National Laboratory (DOE/BNL)
Brooks Air Force Base (DOD/USAF)
Bureau of Medical Services (PHS/BMS)
Bureau of Medicine and Surgery (DOD/USN/BUMED)
Bureau of Radiological Health (PHS/BRH)
Case Western Reserve University
Center for Devices and Radiological Health (PHS/CDRH)
Center for Human Radiobiology (DOE/ANL/CHR)
Centers for Disease Control and Prevention (PHS/CDC)
Central Intelligence Agency (CIA)
Chemical Corps (DOD/USA/CC)
Clinton Laboratory (WAR/CE/MED)
Columbia-Presbyterian Medical Center
Committee on Growth (NAS/NRC)
Committee on Medical Research (EOP/OSRD/CMR)
Congress
Congressional Research Service (LC/CRS)
Cornell University
Corps of Engineers (DOD/CE)
Crocher Laboratory
Defense Atomic Support Agency (DOD/DASA)
Defense Nuclear Agency (DOD/DNA)
Dental Consult Services
Department of Defense (DOD)
Department of Energy (DOE)
Department of Health and Human Services (DHHS)
Department of Health Education and Welfare (DHEW)
Department of Justice (DOJ)
Department of Medicine and Surgery (VA)
Department of Veterans Affairs (DVA)
Division of Biology and Medicine (AEC/DBM)
Division of Biomedical and Environmental Research (AEC/DBER)
Division of Experimental Biology and Medicine (PHS)
Division of Health and Safety (AEC/DHS)
Division of Industrial Hygiene (PHS)
Division of Military Application (AEC/DMA)
Division of Radiation Health (PHS)

Division of Radiological Health (PHS)
Dow Chemical Corporation
Dugway Proving Ground (DOD/DPG)
Elgin State Hospital
Energy Research and Development Administration (ERDA)
Environmental Health Center
E. J. Cairo Fund for Research
Federal Security Agency (FSA)
Fermi Laboratory
Fermi National Accelerator Laboratory
Food and Drug Administration (PHS/FDA)
General Accounting Office (GAO)
General Electric Co.: Biology Laboratory
Goddard Space Flight Center (NASA/GSFC)
Hanford Site (Richland, Washington)
Harper Hospital
Harvard Medical School
Harvard Medical School: Radioactivity Center
Harvard University
Health Group (DOE/LANL)
Idaho National Engineering Laboratory (DOE/INEL)
Indian Health Service (PHS/IHS)
Isotopes Branch (AEC)
John Hartford Foundation
Johnson Space Center (NASA)
Joint Atomic Energy Intelligence Committee (JAEIC)
Joint Committee on Atomic Energy (Congress)
Joint Nuclear Energy Intelligence Committee (JNEIC)
Joint Panel on Medical Aspects of Atomic Warfare (DOD)
Joint Research and Development Board (JRDB) Judiciary
Laboratory for Experimental Oncology
Lackland Air Force Base (DOD/USAF)
Langley Porter Clinic
Lawrence Berkeley Laboratory (AEC/LBL)
Lawrence Livermore National Laboratory (DOE/LLNL)
Library of Congress (LC)
Long Island Jewish Hospital (Hyde Park New York)
Los Alamos National Laboratory (DOE/LANL)
Manhattan Engineer District (WAR/CE/MED)
Manned Spacecraft Center (NASA)
Markle Foundation
Massachusetts General Hospital (MGH)
Massachusetts General Hospital (MGH): Thyroid Clinic
Massachusetts Institute of Technology (MIT)
McGill University
Medical Liaison Officer Network
Military Liaison Committee to AEC (DOD/OSD/MLC)
Monsanto Chemical Company
M. D. Anderson Hospital (Houston Texas)
National Academy of Sciences (NAS)
National Advisory Cancer Council
National Advisory Committee on Aeronautics (NACA)
National Advisory Heart Council
National Aeronautics and Space Administration (NASA)
National Archives and Records Administration (NARA)
National Cancer Institute (PHS/NIH/NCI)
National Center for Radiological Health (PHS/NCRH)
National Committee on Radiation Protection (NCRP)
National Council on Radiation Protection and Measurements (NCRPM)
National Defense Research Committee (EOP/OSRD/NDRC)
National Heart Institute (PHS/NIH/NHI)
National Institute for Arthritis and Metabolic Diseases (PHS/NIH/NIAMD)
National Institute for Occupational Safety and Health (PHS/NIH/NIOSH)
National Institutes of Health (NIH)
National Naval Medical Center (DOD/USN/NNMC)
National Research Council (NAS/NRC)
National Science Foundation (NSF)
Naval Medical Research Institute (DOD/USN/NMRI)
Naval Radiological Defense Laboratory (DOD/USN/NRDL)
Navy (DOD/USN)
New England Deaconess Hospital
New England Deaconess Hospital: Cancer Research Institute

New England Deaconess Hospital: Radioactivity Center
New London Submarine Base (DOD/USN)
New York Operations Office (AEC/NYOO)
New York Operations Office (AEC/NYOO): Health and Safety Laboratory (HASL)
New York University
Northwest Research Foundation
Nuclear Energy Propulsion for Airplanes Program (DOD/USAF/NEPA)
Nuclear Regulatory Commission (NRC)
Nutrition Foundation Inc.
Oak Ridge Associated Universities (ORAU)
Oak Ridge Institute for Nuclear Studies (ORINS)
Oak Ridge National Laboratory (DOE/ORNL)
Office for Protection from Research Risk (PHS/NIH/OPRR)
Office of Naval Research (DOD/USN/ONR)
Office of Scientific Research and Development (EOP/OSRD)
Office of the Secretary of Defense (DOD/OSD)
Office of the Surgeon General (PHS/OSG)
Oregon State Prison (Selon Oregon)
Pacific Northwest Laboratories (Battelle/PNL)
Physical Biology Laboratory (PHS)
Public Health Service (PHS)
Public Health Service (PHS): Hospitals Radiant Energy Unit (PHS)
Radiation Study Section (NIH)
Radiation Surveillance Center
Radiological Health Program (PHS)
Research Advisory Council (DOD/USN)
Research and Development Board (DOD/RDB)
Rockefeller Foundation
Rockefeller Foundation: International Health Division
Santa Fe Operations (AEC)
Savannah River
School of Aviation Medicine (DOD/USAF/SAM)
Scientific Advisory Board (DOD/USAF/SAB)
Scientific Advisory Panel (DOD/USA/SAP)
Secretary of Defense--See Office of the
Sloan-Kettering Institute
Southwestern Radiological Health Laboratory (PHS/SRHL)
Stanford University
State University of New York
Submarine Medical Research Laboratories (SMRL)
Surgeon General--See Office of the
Texas Tech University
Tufts University
Tufts University: Medical Center
Tulane Unversity
University of California at Berkeley (UCB)
University of California at Berkeley (UCB): Radiation Laboratory
University of California at Los Angeles (UCLA)
University of California at San Diego (UCSD)
University of California at San Francisco (UCSF)
University of California at San Francisco (UCSF): Hospital
University of Chicago
University of Chicago: Billings Hospital
University of Chicago: Department of Radiology
University of Chicago: Hematology Clinic
University of Chicago: Metallurgical Laboratory
University of Cincinnati
University of Iowa
University of Michigan
University of Minnesota
University of Puerto Rico
University of Puerto Rico: School of Medicine
University of Rochester
University of Rochester: Department of Radiation Biology
University of Rochester: Metabolic Unit
University of Rochester: Strong Memorial Hospital
University of Tennessee
University of Texas
University of Utah
University of Washington
Upjohn Company
Vanderbilt University
Veterans Administration (VA)
Veterans Health Administration (VA/VHA)
VA Hospital (Albany, New York)
VA Hospital (Albuquerque, New Mexico)
VA Hospital (Alexandria, Virginia)
VA Hospital (Allen Park, Michigan)

VA Hospital (Ann Arbor, Michigan)
VA Hospital (Atlanta, Georgia)
VA Hospital (Augusta, Georgia)
VA Hospital (Baltimore, Maryland)
VA Hospital (Batavia, New York)
VA Hospital (Birmingham, Alabama)
VA Hospital (Boston, Massachusetts)
VA Hospital (Bronx, New York)
VA Hospital (Brooklyn, New York)
VA Hospital (Buffalo, New York)
VA Hospital (Charleston, South Carolina)
VA Hospital (Chicago, Illinois)
VA Hospital (Chicago, Research Illinois)
VA Hospital (Chicago, Westside Illinois)
VA Hospital (Cincinnati, Ohio)
VA Hospital (Cleveland, Ohio)
VA Hospital (Coral Gables, Florida)
VA Hospital (Dallas, Texas)
VA Hospital (Dayton, Ohio)
VA Hospital (Dearborn, Michigan)
VA Hospital (Denver, Colorado)
VA Hospital (Durham, North Carolina)
VA Hospital (East Orange, New Jersey)
VA Hospital (Fort Howard, Maryland)
VA Hospital (Fresno, California)
VA Hospital (Gainsville, Forida)
VA Hospital (Hines, Illinois)
VA Hospital (Houston, Texas)
VA Hospital (Indianapolis, Indiana)
VA Hospital (Iowa City, Iowa)
VA Hospital (Jackson, Mississippi)
VA Hospital (Kansas City, Missouri)
VA Hospital (Kecoughtan, Virginia)
VA Hospital (Lexington, Kentucky)
VA Hospital (Lincoln, Nebraska)
VA Hospital (Little Rock, Arkansas)
VA Hospital (Livermore, California)
VA Hospital (Long Beach, California)
VA Hospital (Los Angeles, California)
VA Hospital (Los Angeles (Wadsworth), California)
VA Hospital (Louisville, Kansas)
VA Hospital (Madison, Wisconsin)
VA Hospital (Martinez, California)
VA Hospital (Martinsburg, West Virginia)
VA Hospital (Memphis, Tennessee)
VA Hospital (Miami, Florida)
VA Hospital (Minneapolis, Minnesota)
VA Hospital (Murfreesboro, Tennessee)
VA Hospital (Nashville, Tennessee)
VA Hospital (New Orleans, Louisiana)
VA Hospital (New York, New York)
VA Hospital (Newington, Connecticut)
VA Hospital (Oklahoma, City Oklahoma)
VA Hospital (Omaha, Nebraska)
VA Hospital (Oteen, North Carolina)
VA Hospital (Palo Alto, California)
VA Hospital (Perry Point Maryland)
VA Hospital (Philadelphia, Pennsylvania)
VA Hospital (Phoenix, Arizona)
VA Hospital (Pittsburgh, Pennsylvania)
VA Hospital (Portland, Oregon)
VA Hospital (Providence, Rhode Island)
VA Hospital (Richmond, Virginia)
VA Hospital (Salt Lake, City Utah)
VA Hospital (San Francisco, California)
VA Hospital (San Juan, Puerto Rico)
VA Hospital (Seattle, Washington)
VA Hospital (Sepulveda, California)
VA Hospital (St. Cloud, Minnesota)
VA Hospital (St. Louis, Missouri)
VA Hospital (Syracuse, New York)
VA Hospital (Tucson, Arizona)
VA Hospital (Van Nuys, California)
VA Hospital (Washington, District of Columbia)
VA Hospital (West Haven, Connecticut)
VA Hospital (West Roxbury, Massachusetts)
VA Hospital (White River Junction,Vermont)
VA Hospital (Wood, Wisconsin)
Walter Reed Army Institute of Research (DOD/USA)
Walter Reed Army Medical Center (DOD/USA/WRAMC)
War Department (War)
Washington State Prison (Walla Walla)
Wright Patterson Medical Center

ATTACHMENT 4

Accession Number

Advisory Committee on Human Radiation Experiments

ACCESSIONS RECORD

Committee Record

Date Shipped: Date Received: Code:
Received By: Contact:
Described By: Date Described:
Review Began: Review Completed:

Provenance

Organization:
Division:
Contact:
Address:
Collection Reference:
Deposit Correpondence? Inventory? Duplicate Set?
Classified Materials? Classification:
Unredacted Materials? Type(s):

Physical Description

Containers: Boxes Folders Documents
Envelopes Binders

Volume:

Paper cu.ft.
Photoform
Microform reels fiche of
Electronic audio tapes video tapes data tapes
diskettes cds

Physical Note:

Contents Description

Brief Note

Subject Index
Person Index
Organization Index

ATTACHMENT 5

Document Number

Advisory Committee on Human Radiation Experiments

DOCUMENT DESCRIPTION AND INDEX

Committee Record

Date Described: Accession Number: Doc#:
Described by: Full Indexing?

Provenance

Organization:
Collection Reference:
Series/Box Reference:
Folder Title/Document No.:
Classification: Date:
Other Provenance Information:

Format

Medium: Type:

Description

Document Category:

Document Date No. Pages: 0 No. Documents: 0

Author/Main Entry:
Addressee(s):
Title/Subject:
Publisher/Series:
Contents:

Comment

Indexes

Subjects:
People:
Organizations:

ATTACHMENT 6

ACCESSIONS VOLUME BY SOURCE

Source	*cubic feet of paper*
Advisory Committee on Human Radiation Experiments	3.14
Agency for International Development	0.02
Baylor University	0.33
Boston University	0.50
Central Intelligence Agency	2.12
Commonwealth of Massachusetts	0.13
Congress	2.19
Consumer Product Safety Commission	0.03
Corporation	9.02
Department of Agriculture	0.05
Department of Defense	84.61
Department of Education	0.02
Department of Energy	265.38
Department of Health and Human Services	9.77
Department of Justice	1.13
Department of the Interior	0.20
Department of Transportation	0.15
Department of Veterans Affairs	16.85
Environmental Protection Agency	0.10
George Washington University	0.23
Harvard University	0.70
Individual	12.32
Massachusetts General Hospital	0.06
Massachusetts Institute of Technology	1.66
Montefiore Medical Center	0.50
National Academy of Sciences	1.47
National Aeronautics and Space Administration	11.96
National Archives and Records Administration	10.93
National Science Foundation	0.03
Nuclear Regulatory Commission	11.55
Smithsonian Institution	0.20
State of California	0.01
State of Oregon	0.05
State of Washington	0.05
Texas A&M University	0.13
University of California at Berkeley	0.20
University of California at Los Angeles	2.24
University of California at San Francisco	0.20
University of Chicago	0.09
University of Cincinnati	7.01
University of Michigan	0.10

University of Tennessee	0.17
University of Texas, M.D. Anderson Cancer Center	0.01
University of Utah	0.01
University of Wisconsin at Madison	0.15
Vanderbilt University	0.10
Virginia Commonwealth University	0.39
West Virginia University	0.02
TOTAL	**458.28**

Note: These figures were exported from the database on Friday, July 28, 1995.

ATTACHMENT 7

ACHRE RECORDS COLLECTION STRUCTURE

Series	Files	Subfiles
Administrative	Administrative Management	
	Technology	Infrastructure Records
		Technology Corner database
Committee Activities	Chair	
	Document Repository database	
	Meetings	Full Committee meetings
		Small Panel meetings
	Members	
	Subcommittees/Projects	
Communications	Agency Relations	
	Communications/Outreach Team	
	Congressional Relations	
	Contact Tracking database	
	Electronic Mail Generic Database Description	
	Information Requests database	
	Media Relations	
	News Clippings	Clippings
		News Clippings Database
	Public Inquiries	
	University Relations	
	White House	

Series	Files	Subfiles
Data Collection	Agency Data Requests	Agency Data Request records
		Agency Data Requests Tracking database
	Agency Liaison	Central Intelligence Agency
		Department of Defense
		Department of Energy
		Department of Health and Human Services
		Department of Veterans Affairs
		National Aeronautics and Space Administration
		Nuclear Regulatory Commission
	Site Visits	
Information Services	Research Requests	
Public Access	Gopher	ACHRE Gopher database
		Project records
	Public Access Services	
	Public Reading Room	
	World Wide Web	ACHRE WWW database
		Project records

Series	Files	Subfiles
Records Management	Achre Indexes database	
	DNA Library database	
	Document Collection database	
	Document Processing	
	Information Management database	
	Publications Collection database	
	RECC Library database	
	Records Accession and Disposition	Accession and Disposition records
		Accessions Register Notebooks
Reports	Final Report	Drafts and Comments
		Planning and Organization
		Citations
	Interim Report	Drafts and Comments
		Planning and Organization
Research Collection	Archives	Collections
		Documents
	Library	ACBM Minutes
		Articles and Extracts
		Congressional Hearings and Reports
		Joint Panel on Medical Aspects of Atomic Warfare
		Los Alamos Hdivision Reports
		Monographs and Other
		School of Aviation Medicine

Series	Files	Subfiles
Research Project	ACBM Minutes database	
	Classification Team	
	Congressional Hearings database	
	Contemporary Practices	
	Ethics Mapping Team	
	Experiments	Experiment Dockets
		Experiment Index database
	History of Ethics	
	History of Practices	
	Information Management/ Review Team	
	Institutional Mapping/ Management Theme	
	Interview Program	Oral History Project
		Targeted Interview Project
	National Security	
	Power Differentials	
	Project Discussion Databases	Biomedical Discussion database
		Intentional Releases Discussion database
		Los Alamos Discussion database
		Oak Ridge Discussion database
		TBI Discussion database
	Remedies	

Series	Files	Subfiles
Research Project (cont.)	Research Proposal Review Project (RPRP)	Administration and Management
		Proposals and Reviews
		RPRP Databases: --Proposal Review / Non-Radiation --Proposal Review / Radiation --Proposal Review / Radiation Risk --Proposal Study Tracking / Archive --Proposal Study Tracking
	Resources and Bibliography database	
	Risk/Benefit	
	Subject Interview Study (SIS)	Administration and Management
		Contractor records
		Interview records
		SIS Databases: --Hospital Records (SIS) --Subject Interview / Discordant --Subject Interview Survey --Subject Interview Tracking
	Timeline database	
Staff Operations	Coordinating Group	
	Executive Director	
	Management Group	
	Organization	
	Staff Discussion database	
	Staff Meetings	
Staff Research	Names	

ATTACHMENT 8

ROSTER OF ACHRE MEMBERS*

Ruth R. Faden, Ph.D., M.P.H., *chair*
Director, Program in Law, Ethics and Health
Professor, Dept. of Health Policy & Management
The Johns Hopkins University
School of Hygiene and Public Health
Baltimore, MD

Senior Research Scholar
Kennedy Institute of Ethics
Georgetown University
Washington, D.C.

Kenneth R. Feinberg, J.D.
Kenneth R. Feinberg & Associates
Washington, D.C.

Eli Glatstein, M.D.
Professor and Chair,
Department of Radiation Oncology
The University of Texas
Southwestern Medical Center at Dallas
Dallas, TX

Jay Katz, M.D.
Elizabeth K. Dollard Professor Emeritus of Law, Medicine and Psychiatry
Harvey L. Karp Professorial Lecturer in Law and Psychoanalysis
Yale Law School
New Haven, CT

Patricia A. King, J.D.
Professor of Law
Georgetown University Law Center
Washington, DC

Susan E. Lederer, Ph.D.
Associate Professor,
Department of Humanities
The Pennsylvania State University
College of Medicine
Hershey, PA

Ruth Macklin, Ph.D.
Professor of Bioethics,
Department of Epidemiology & Social Medicine
Albert Einstein College of Medicine
Bronx, NY

Lois L. Norris
Second Vice President (retired)
Omaha National Bank and Omaha National Corporation
Omaha, NE

Nancy L. Oleinick, Ph.D.
Professor of Radiation Biochemistry
Division of Radiation Biology
Case Western Reserve University
School of Medicine
Cleveland, OH

Henry D. Royal, M.D.
Professor of Radiology
Associate Director,
Division of Nuclear Medicine
Mallinckrodt Institute of Radiology
Washington University Medical Center
St. Louis, MO

---

* Frank Press, immediate past president of the National Academy of Sciences and chairman of the National Research Council, was among those initially appointed by President Clinton. He accepted the appointment, attended the initial meeting in April 1994, and resigned in May 1994.

Philip K. Russell, M.D.
Professor, Department of International Health
The Johns Hopkins University
School of Hygiene and Public Health
Baltimore, MD

Mary Ann Stevenson, M.D., Ph.D.
Assistant Professor of Radiation Oncology
Joint Center for Radiation Therapy
Harvard Medical School
Boston, MA

Deputy Chief
Department of Radiation Oncology
New England Deaconess Hospital
Boston, MA

Duncan C. Thomas, Ph.D.
Professor, Department of Preventive Medicine
University of Southern California
School of Medicine
Los Angeles, CA

Reed V. Tuckson, M.D.
President
Charles Drew University of Medicine & Science
Los Angeles, CA

ATTACHMENT 9

LIST OF ACHRE MEETINGS

Full Committee Meetings

First Meeting, April 21-22, 1994, Washington, D. C.
Second Meeting, May 18-19, 1994, Washington, D. C.
Third Meeting, June 13-14, 1994, Washington, D. C.
Fourth Meeting, July 5-6, 1994, Washington, D. C.
Fifth Meeting, July 25-26, 1994, Washington, D. C.
Sixth Meeting, September 12-13, 1994, Washington, D. C.
Seventh Meeting, October 12-13, 1994, San Francisco, California
Eighth Meeting, November 14-15, 1994, Washington, D. C.
Ninth Meeting, December 15-16, 1994, Washington, D. C.
Tenth Meeting, January 19-20, 1995, Washington, D. C.
Eleventh Meeting, February 16-17, 1995, Washington, D. C.
Twelfth Meeting, March 15-17, 1995, Washington, D. C.
Thirteenth Meeting, April 10-12, 1995, Washington, D. C.
Fourteenth Meeting, May 8-10, 1995, Washington, D. C.
Fifteenth Meeting, June 21-23, 1995, Washington, D. C.
Sixteenth Meeting, July 17-19, 1995, Washington, D. C.

Small Panel Meetings

First Small Panel Meeting, October 21, 1994, Cincinnati, Ohio
Second Small Panel Meeting, November 21, 1994, Spokane, Washington
Third Small Panel Meeting, January 30, 1995, Santa Fe, New Mexico
Fourth Small Panel Meeting, March 2, 1995, Knoxville, Tennessee

ATTACHMENT 10

ACHRE SUBCOMMITTEES

Subcommittees are entered for their last known name.
Membership reflects total over the history of the activity.

Biomedical Experiments - Biodistribution & Radioisotope Research (formerly Biomedical Experiments - Biodistribution and Biomedical Experiments - Radioisotope Research)

Committee	*Staff*
Ruth Faden (chair)	Barbara Berney (co-lead)
Eli Glatstein	Gilbert Whittemore (co-lead)
Nancy Oleinick	Jonathan Engel
Henry Royal	John Harbert
	Gregg Herken
	John Kruger
	Jonathan Moreno
	Ron Neumann
	Miriam Bowling

Biomedical Experiments - External Radiation With Patients and Radiation Research With Healthy Adults (formerly Biomedical Experiments - External Radiation With Patients and Biomedical Experiments - Radiation Research With Healthy Adults)

Committee	*Staff*
Ruth Faden (chair)	Barbara Berney (co-lead)
Eli Glatstein	Gary Stern (co-lead)
Ruth Macklin	Miriam Bowling
Lois Norris	John Harbert
Henry Royal	Jon Harkness
Mary Ann Stevenson	Steve Klaidman
Duncan Thomas	Jonathan Moreno
	Ron Neumann
	Sandra Thomas
	Gilbert Whittemore
	John Kruger
	Noel Theodosiou

Biomedical Experiments - Research Involving or Affecting Children and Pregnant Women
(formerly Biomedical Experiments - Research Involving or Affecting Children)

Committee	Staff
Ruth Faden (chair)	Sandra Thomas (lead)
Patricia King	Barbara Berney
Ruth Macklin	Steve Goodman
Mary Ann Stevenson	John Harbert
	Jonathan Moreno
	Ron Neumann
	Gilbert Whittemore

Biomedical Research (also called Sampling of Biomedical Experiments)

Committee	*Staff*
Mary Ann Stevens (co-chair)	Ron Neumann (co-lead)
Henry Royal (co-chair)	Gilbert Whittemore (co-lead)
Ruth Faden	Don Weightman
Eli Glatstein	Jonathan Engel
Nancy Oleinick	
Philip Russell	
Duncan Thomas	

Cold War Data Collection (formerly Data Collection: Cold War, formerly, Discovery--Cold War; also called Cold War)

Committee	*Staff*
Mary Ann Stevenson (chair)	Gil Whittemore (lead)
Eli Glatstein	
Patricia King	
Nancy Oleinick	
Philip Russell	

Ethics Criteria, Policies and Practices (formerly Ethics Criteria & Historical Policies/Remedies, formerly Ethics Criteria; also called Ethical Criteria)

Committee	*Staff*
Ken Feinberg (co-chair)	Jeff Kahn (co-lead)
Ruth Macklin (co-chair)	Jonathan Moreno (co-lead)
Ruth Faden	Gary Stern
Jay Katz	Allen Buchanan
Patricia King	Faith Bulger
Lois Norris	Valerie Hurt
Duncan Thomas	Gail Javitt

Whilhelmine Miller

Ethics Data Collection (formerly Data Collection: Ethics, formerly Discovery--Ethics)

Committee	*Staff*
Ruth Macklin (chair)	Jonathan Moreno (lead)
Ruth Faden	
Eli Glatstein	
Susan Lederer	
Philip Russell	

Ethics Oral History (formerly Oral History)

Committee	*Staff*
Susan Lederer (chair)	Gail Javitt (lead)
Jay Katz	Jon Harkness
Ruth Macklin	Susan White-Junod
Philip Russell	Jeff Kahn
	Jonathan Moreno
	Jonathan Engel
	Sara Chandros

Institutional Case Studies (formerly Institutional Case Studies--UCSF/Bay Area and Institutional Case Studies--Oak Ridge)

Committee	*Staff*
Susan Lederer (chair)	Don Weightman (co-lead)
Nancy Oleinick	Gregg Herken (co-lead)
Philip Russell	Deborah Holland
Mary Ann Stevenson	Miriam Bowling
	Mark Goodman
	John Harbert
	John Kruger
	David Saumweber
	Noel Theodosiou

Intentional Releases and Exposures/Experiments of Opportunity

Committee	*Staff*
Nancy Oleinick (co-chair)	Mark Goodman (co-lead)
Duncan Thomas (co-chair)	Barbara Berney (co-lead)
Ken Feinberg	Faith Bulger
Jay Katz	Patrick Fitzgerald
Ruth Macklin	Gregg Herken
	Deborah Holland
	Sandra Thomas
	Gilbert Whittemore

Outreach

Committee	*Staff*
Reed Tuckson (chair)	Steve Klaidman (lead)
Ruth Macklin	Kris Crotty
Lois Norris	Lanny Keller
Henry Royal	

Remedies

Committee	*Staff*
Ken Feinberg (chair)	Gary Stern (lead)
Patricia King	Faith Bulger
Duncan Thomas	Gail Javitt
	Steve Klaidman

Research Proposal Review (formerly Protocol Review)

Committee	*Staff*
Jay Katz (co-chair)	Sara Chandros (lead)
Ruth Macklin (co-chair)	Barbara Berney
Ruth Faden	Nancy Kass
Eli Glatstein	Jonathan Moreno
Lois Norris	Kathy Taylor
Henry Royal	Jeff Kahn
Mary Ann Stevenson	
Duncan Thomas	

Risk Analysis

Committee	*Staff*
Eli Glatstein (chair)	Denise Holmes (lead)
Nancy Oleinick	Ellen Lee
Henry Royal	
Philip Russell	
Mary Ann Stevenson	
Duncan Thomas	

Scope and Priorities (formerly Scope)

Committee	*Staff*
Duncan Thomas (chair)	Anna Mastroianni (lead)
Ruth Faden	Faith Bulger
Ken Feinberg	
Jay Katz	
Henry Royal	

Secrecy and National Security

Committee	*Staff*
Jay Katz (chair)	Patrick Fitzgerald (lead)
Nancy Oleinick	Allen Buchanan
	Mark Goodman
	Gregg Herken
	Gary Stern

Subject Interviews

Committee	*Staff*
Ruth Faden (chair)	Jeremy Sugarman (lead)
Jay Katz	Sara Chandros
Susan Lederer	Nancy Kass
	Patt Perentesis
	Praveen Fernandes

ATTACHMENT 11

ACHRE STAFF ORGANIZATION

KEY STAFF BY FUNCTION

Executive Director	Dan Guttman
Associate Director	Anna Mastroianni[1]
Associate Director	Jeffrey Kahn[2]
Special Assistants for Committee and Staff Affairs	Jerry Garcia Jeanne Kepper
Director of Communications and Counselor to the Committee	Steve Klaidman
Public Affairs Officer	Lanny Keller
Coordinator for Congressional Relations and Public Affairs	Kris Crotty
Director of Information Services	David Saumweber
Office Manager	Sally Rhoadarmer

STAFF PROJECT TEAMS

The last formal outline of staff project organization is dated October 26, 1994, and reflects a structure that remained in place in most respects until late winter 1995, when staff structure merged into the developing structure of the final report. Teams and projects are listed under their last identifiable title, with previous titles indicated. In most cases, the staff membership is cumulative. Administrative teams are not listed.

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[1]Originally, Director of Committee Affairs.

[2]Originally, Staff Director.

Agency Document Search Teams

May-July 1994

Overall Coordinator: Don Weightman
Coordinating Team: Gregg Herken
Jonathan Moreno
Ron Neumann
Gil Whittemore

DOE: Jim David (lead), Patrick Fitzgerald, Gregg Herken, Faith Bulger, Deborah Holland, Noel Theodosiou
HHS: Barbara Berney (lead), Faith Bulger (former lead), Jim David, Kathy Taylor, Gwen Davis
VA: Denise Holmes (lead), Jim David, Jeremy Sugarman, Faith Bulger, Gwen Davis
DOD: Jim David (lead), Patrick Fitzgerald, Jonathan Engel, Gregg Herken, Denise Holmes, Noel Theodosiou, Gary Stern
CIA: Gary Stern (lead), Patrick Fitzgerald, Gregg Herken, Faith Bulger, Sara Chandros
NASA: Mark Goodman (lead), Gary Stern (former lead), Kathy Taylor, Sara Chandros, Gregg Herken, Denise Holmes

August-October 1994

Management Liaison: Anna Mastroianni
Overall Coordinator: Don Weightman
Archival Expert: Jim David

DOE: Don Weightman (lead), Patrick Fitzgerald, Gregg Herken, Deborah Holland, Noel Theodosiou
HHS: Don Weightman (lead), Faith Bulger, Gwen Davis, Jon Harkness, Kathy Taylor
VA: Denise Holmes (lead), Gwen Davis
NASA: Mark Goodman (lead), Sara Chandros
DOD: Don Weightman (lead), Patrick Fitzgerald, Gregg Herken, Noel Theodosiou
CIA: Gary Stern (lead), Patrick Fitzgerald

October 1994-May 1995

Management Liaison: Anna Mastroianni
Coordinators: Don Weightman/Deborah Holland
Archival Expert: Jim David

DOE: Don Weightman (lead), Deborah Holland
HHS: Don Weightman (lead), Faith Bulger, Jon Harkness
VA: Denise Holmes (lead)
DOD: Don Weightman (lead), Patrick Fitzgerald, Noel Theodosiou
CIA: Gary Stern (lead)
NASA: Mark Goodman (lead)
NRC: David Saumweber (lead)

Biomedical Experiment Groupings (July 9, 1994-May 1995; formerly Experiment Groupings)

Management Liaison Anna Mastroianni
External Radiation with Patients (formerly *Total Body Irradiation*): Gary Stern (lead), John Harbert, Jonathan Moreno, Ron Neumann, Gilbert Whittemore
Biodistsribution: Barbara Berney (lead), Ron Neumann (former lead), Jonathan Engel, John Harbert, Jonathan Moreno, Gregg Herken, Gilbert Whittemore
Radioisotope Research (formerly *Tracer/Metabolism*): Gilbert Whittemore (lead), Jonathan Engel, John Harbert, Jonathan Moreno, Ron Neumann, Sandra Thomas
Therapeutic/Diagnostic: Ron Neumann (lead), Denise Holmes
Intentional Releases/Exposures & Experiments of Opportunity: Barbara Berney (co-lead), Mark Goodman (co-lead), Faith Bulger, Gregg Herken, Gilbert Whittemore
Radiation Research with Healthy Adults: Miriam Bowling, Jon Harkenss, John Harbert, Steve Klaidman, John Kruger, Jonathan moreno, Ron Neumann, Noel Theodosiou
Research Involving or Affecting Children: Sandra Thomas (lead), Steve Goodman, John Harbert, Jonathan Moreno, Ron Neumann

Communications/Outreach (formerly Communications)

May-June 1994
Steve Klaidman (lead), Lanny Keller, Kris Crotty

July 1994-May 1995
Management Liaison: Steve Klaidman ; *Press/Congress/Public*: Steve Klaidman (lead), Lanny Keller, Kris Crotty, Noel Theodosiou
Subject Interviews Related to Experiment Groupings: Steve Klaidman, Lanny Keller, Kris Crotty
Public Reading Area, Steve Klaidman, Lanny Keller, David Saumweber, Kris Crotty

Contemporary Practices and Policies Regarding Human Subjects Research (July 9, 1994-May 1995)

Management Liaison: Jeff Kahn
Subject Interviews: Jeremy Sugarman (lead), Nancy Kass, Sara Chandros
Research Proposal Review (formerly *Protocol Review*): Sara Chandros (lead), Gail Geller, Jonathan Moreno (former co-lead), Kathy Taylor (former co-lead), Barbara Berney, Nancy Kass, Jeremy Sugarman
Secondary Sources: Jon Harkness, Gail Javitt, Sara Chandros
Agency Oversight/Policies Regarding Exceptions to the "Common Rule": Denise Holmes, Wilhelmine Miller, Gary Stern, Jonathan Moreno, Kathy Taylor

Coordinating Group (June-August 1994)

Ethics: Jonathan Moreno;
Cold War: Gil Whittemore, Ron Neumann, and Gregg Herken
Agency Data Collection: Don Weightman
Outreach: Steve Klaidman
Information Services: David Saumweber

Declassification (May 23, 1994-May 1995; formerly Classification)

Management Liaison: Anna Mastroianni
Team Members: Don Weightman (lead), Gary Stern (former lead), Dan Guttman (former lead), Gregg Herken

Ethics Criteria (October 1994-May 1995)

Management Liaison: Jeff Kahn
Team Members: Jonathan Moreno (lead), Allen Buchanan, Wilhelmine Miller

Experiment Mapping (also called Experiments Mapping)

May-June 1994
Cincinnati group: Jonathan Engel (lead), Gregg Herken, Ron Neumann;
Plutonium Injections group: Jonathan Engel (lead), Gregg Herken, Ron Neumann
Green Run group: Gil Whittemore (lead), Gregg Herken

July 1994
DOE/Markey Experiments: Ron Neumann (lead)
Abstracting: Jonathan Engel (co-lead), David Saumweber (co-lead), Gwen Davis, Deborah Holland, Noel Theodosiou, Sandra Thomas
Review: Ron Neumann (lead), John Harbert, Sandra Thomas, Gilbert Whittemore
Agency Visits--Experiments Processing: Don Weightman (lead), John Harbert, Ron Neumann, Sandra Thomas, Gilbert Whittemore

August-October 1994
Management Liaison: Anna Mastroianni
Experiments: Ron Neumann
Abstracting: Jonathan Engel (lead), Gwen Davis, Deborah Holland, Noel Theodosiou, Sandra Thomas, Patricia Stewart-Henney
Agency Visits--Experiments Processing: Don Weightman (lead), John Harbert, Ron Neumann, Sandra Thomas, Gilbert Whittemore
Technical Consultants: John Harbert, David Saumweber, Gilbert Whittemore

October 1994-May 1995
Management Liaison: Anna Mastroianni, Barbara Berney
Abstracting: Jonathan Engel (lead), Miriam Bowling, John Kruger, Noel Theodosiou, Sandra Thomas, Patricia Parentisis
Technical Consultants: John Harbert, Ron Neumann, David Saumweber, Gil Whittemore

History of Ethics Policies and Procedures (formerly Ethics Mapping)

May-July 1994
Team Members: Jonathan Moreno (lead; DOE ethics liaison; professional codes), Sara Chandros,

Patrick Fitzgerald (6/9/95-; DOE/CIA ethics liaison), Jon Harkness, Jeff Kahn, Anna Mastroianni, Jeremy Sugarman(VA ethics liaison), Kathy Taylor (DHHS/NASA ethics liaison), Gail Javitt

August 1994-May 1995
Management Liaison: Jeff Kahn
Federal Agencies: Jonathan Moreno (lead), Sara Chandros, Patrick Fitzgerald, Jon Harkness, Kathy Taylor, Gail Javitt, Wilhelmine Miller
Professional Codes: Jonathan Moreno (lead), Sara Chandros, Gail Javitt

History of Practices Regarding Human Subjects Research

July 1994
Team Members: Jon Harness (lead), Susan Lederer (committee adviser), Suzanne Junod

August 1994-May 1995
Management Liaison: Jeff Kahn
Oral Histories: Gail Javitt (lead), Jonathan Moreno (former lead), Jon Harkness, Sara Chandros, Jonathan Engel, Suzanne White Junod [with Sue Lederer]; *Secondary Sources*, Jon Harkness, Sara Chandros, Gail Javitt

Information Management/Review (May 23, 1994-May 1995)

Team Members: David Saumweber (co-lead for managment), Gregg Herken (former co-lead for review), Sara Chandros, Jim David, Gwen Davis, Jonathan Engel, Deborah Holland, Lanny Keller, Sally Rhoadarmer, Noel Theodosiou, Don Weightman, Gil Whittemore, Miriam Bowling, Robin Cochran, John Kruger

Institutional Case Studies (October 1994-May 1995)

Management Liaison: Anna Mastroianni
Oak Ridge: Don Weightman (lead), John Harbert, Debby Holland, David Saumweber, Noel Theodosiou
UCSF/Bay Area: Gregg Herken (co-lead), Don Weightman (co-lead), John Harbert
Other Institutional Research, Barbara Berney (Los Alamos), Patrick Fitzgerald (SAM), Mark Goodman (SAM), John Harbert (all), Denise Holmes (UC), John Kruger (Los Alamos), Ron Neumann (Los Alamos), Noel Theodosiou (SAM), Miriam Bowling (Los Alamos), Gil Whittemore (Boston/SAM)

Institutional Mapping (May-August 1994)

Team Members: Gil Whittemore (lead), Jim David, Faith Bulger, Denise Holmes, Gary Stern, Scientist(s)

Intentional Releases/Exposures and Experiments of Opportunity (October 1994-May 1995)

Team Members: Barbara Berney (co-lead), Mark Goodman (co-lead), Faith Bulger, Patrick Fitzgerald, Gregg Herken, Debby Holland, Gil Whittemore

Management Team (June 1994-May 1995)

Team Members: Ruth Faden (chair), Dan Guttman, Anna Mastroianni, Jeff Kahn, Steve Klaidman

National Security, Secrecy, Openness and Research Ethics (July 9, 1994-May 1995)

Management Liaison: Jeff Kahn
Team Members: Patrick Fitzgerald (lead), Allen Buchanan, Gregg Herken, Gary Stern

Oral History (August 1994-May 1995)

Management Liaison: Jeff Kahn, Steve Klaidman (former liaison)
Team Members: Gail Javitt (lead), Steve Klaidman (former lead), Gregg Herken, Lanny Keller, Ron Neumann, Gilbert Whittemore, Mark Goodman, John Harbert, Debby Holland, Gary Stern, Don Weightman

Remedies (July 9, 1994-May 1995)

Management Liaison: Anna Mastroianni
Team Members: Gary Stern (lead), Faith Bulger (former lead), Gail Javitt, Steve Klaidman

Subcommittee Liaison

May-July 1994
Scope and Priorities: Anna Mastroianni (lead), Faith Bulger
Cold War Data Collection: Gil Whittemore
Ethics Data Collection: Jonathan Moreno
Outreach: Steve Klaidman

August 1994-May 1995
Management Liaison: Steve Klaidman, Anna Mastroianni, Jeff Kahn
Biomedical Research: Ron Neumann (co-lead), Gilbert Whittemore (co-lead), Jonathan Engel, Don Weightman
Intentional Releases & Exposures/Experiments of Opportunity: Barbara Berney (co-lead), Mark Goodman (co-lead)
Remedies: Gary Stern (lead)
Oral History (Contemporary): Jeff Kahn (co-lead), Jonathan Moreno (co-lead)
Subject Interviews (Contemporary): Jeremy Sugarman (lead)
Protocol Review (Contemporary): Jeff Kahn (co-lead), Jonathan Moreno (co-lead)

Themes (July 9, 1994-)

Management Liaison: Anna Mastroianni
Management/Oversight and Funding: Don Weightman (lead), Barbara Berney, Deborah Holland, Gregg Herken, David Saumweber, Gilbert Whittemore, Noel Theodosiou;
Power Differentials: Jonathan Moreno (lead), Sara Chandros, Jon Harkness, Denise Holmes, Kathy Taylor, Sandra Thomas

Risk/Benefit: Ron Neumann (co-lead), Gilbert Whittemore (co-lead), Barbara Berney, Sandra Thomas

ATTACHMENT 12

ACHRE STAFF ROSTER

Adio, Bernadette
Berney, Barbara
Blackwell, Andrea
Botkin, Jeff
Bowling, Miriam
Buchanan, Allen
Chang, Tachung
Cochran, Robin
Copening, James
Crenshaw, Julie
Crotty, Kris
David, Jim
Davis, Gwen
Dierkes, Marla
Eason-Finger, Rhea
Engel, Jonathan
Fernandes, Praveen
Fitzgerald, Patrick
Flynn, Sarah
Forte, Melissa
Frank, Pam
Garcia, Jerry
Geller, Gail
Goodman, Mark
Goodman, Steven
Guttman, Dan
Harbert, John
Harkness, Jon
Herken, Gregg
Holland, Deborah
Holmes, Denise
Hughes, Trad
Hull, Sara Chandros
Hurt, Valerie
Jasny, Michael
Javitt, Gail
Jhingory, Marcia
Johnson, Kathy
Joyner, Brian
Jue, Daniel
Kahn, Jeff
Kass, Nancy
Keller, Lanny
Kepper, Jeanne
Klaidman, Steve
Kruger, John
Lee, Ellen
Loria, Danielle
Madonna, Megan
Maria, Leslie
Mastroianni, Anna
McCarthy, Charlie
Miller, Jesi
Miller, Wilhelmine
Moreno, Jonathan
Moskun, Greg
Neumann, Ron
O'Donnell, Kathryn
Parthasarathy, Shobita
Perentesis, Patricia
Rhoadarmer, Sally
Robb, Michael
Saumweber, David
Schnable, Steven
Schoch-Spana, Monica
Schwartz, Deborah
Scialli, Anthony
Smith, Tracy
Sokol, Elizabeth
Stern, Gary
Sugarman, Jeremy
Taylor, Katherine
Theodosiou, Noel
Thomas, Sandra
Till, John
Valentine, Anthony
Webster, Tedd
Weightman, Don
Weiss, Faith [nee Bulger]
White-Junod, Suzanne
Whittemore, Gil
Wisner, Tom
Young, Jackie

ATTACHMENT 13

ACHRE GOPHER CONTENTS

ABOUT THE ADVISORY COMMITTEE'S GOPHER
- About the information contained in this gopher
- Full outline of gopher contents

BACKGROUND INFORMATION
- Committee Establishment
  - Fact sheet
  - White House Press Release of January 18, 1994
  - Executive Order 12891 of January 18, 1994
  - White House Press Release of February 17, 1994
  - Charter
  - Membership
- Radiation and Human Experiments
  - What we know about radiation
  - Human radiation experiments
- Records of Government Response
  - Interagency Working Group brochure
  - Cabinet Memorandum for Heads of Departments and Agencies, January 19, 1994
  - President's Memorandum for the Vice President and Heads of Executive Departments and Agencies, February 17, 1994
  - Department of Energy Statement
  - Department of Health and Human Services Statement
  - Department of Defense Statement, April 15, 1994
  - Department of Veterans Affairs Statement, April 1994
  - National Aeronautics and Space Administration Statement, April 13, 1994
  - Central Intelligence Agency Statement, April 13, 1994
  - Department of Justice Statement

COMMITTEE MEETINGS
- About ACHRE Committee meetings and their documents
  - Schedule of Meetings
  - Attendance and testimony at meetings
  - Available documentation
- First Meeting, April 21-22, 1994, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript

- Second Meeting, May 18-19, 1994, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Third Meeting, June 13-14, 1994, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Fourth Meeting, July 5-6, 1994, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Fifth Meeting, July 25-26, 1994, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Sixth Meeting, September 12-13, 1994, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Seventh Meeting, October 12-13, 1994, San Francisco, California
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Eighth Meeting, November 14-15, 1994, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Ninth Meeting, December 15-16, 1994, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript

- Tenth Meeting, January 19-20, 1995, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Eleventh Meeting, February 16-17, 1995, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Twelfth Meeting, March 16-17, 1995, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Thirteenth Meeting, April 10-11, 1995, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Fourteenth Meeting, May 8-10, 1995, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Fifteenth Meeting, June 21-23, 1995, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Briefing Book
  - Minutes
  - Transcript
- Sixteenth Meeting, July 17-19, 1995, Washington, D. C.
  - Federal Register Notice
  - Agenda
  - Minutes
  - Transcript
- Small Panel Meeting, October 21, 1994, Cincinnati, Ohio
  - Report
  - List of Participants
  - Transcript
- Small Panel Meeting, November 21, 1994, Spokane, Washington
  - Report
  - Richland/Hanford Site Visit
  - Transcript

- Small Panel Meeting, January 30, 1995, Santa Fe, New Mexico
    - Report
    - Briefing Book
    - Transcript
- Small Panel Meeting, March 2, 1995, Knoxville, Tennessee
    - Report
    - Briefing Book
    - Transcript

RESEARCH INFORMATION

- Background on ACHRE information and collections
    - Agency Search Process
    - Collections and Indexes
- Terms and References
    - Radiation Glossary
    - Acronym Index
    - Subject Terms
- Experiments
    - What is listed and why
    - List of experiments by principal investigator
    - List of experiments by where each was performed
    - List of experiments by sponsor
    - List of experiments by date
- Research Document Collection
    - About the research document collection
    - Brief descriptions individual deposits by depositor and date
- Publications Collection
    - About the publications collection
    - Bibliographic entries listed by title

INTERIM REPORT

- Table of Contents
- Transmittal Letter
- Executive Summary
- Introduction
- Part I. Areas of Inquiry
- Part II. The Agency Search Process and Other Methods of Inquiry
- Part III. Outreach
- Part IV. Information Management and Public Access
- Part V. Taking Stock: Some Initial Observations
- Part VI. The Next Six Months
- Appendix A. Executive Order
- Appendix B. Charter
- Appendix C. Committee Roster
- Appendix D. Meeting Dates and Locations
- Appendix E. Summary of Agency Records Retrieval
- Appendix F. Information Management
- Terms and Acronyms

COMMUNICATING WITH THE COMMITTEE

- ACHRE Office
  - Office location
  - Telecommunications
- Staff
  - Key staff by function, with contact information
  - Staff roster
- Media
  - Media Information
- Citizens
  - If you want general information about the Committee
  - If you have information you wish to give the Committee
  - If you believe you were the subject of an experiment
- Public Access to ACHRE Information
  - Federal Advisory Committee Act (FACA) and Privacy Act Obligations
  - Public Reading Room
  - About the ACHRE gopher and other electronic information

FINAL REPORT [available only in html format]

- Executive Summary
- Guide to Final Report
- Final Report Ordering Information

ATTACHMENT 14

ACHRE Experiment No. **--A**

Advisory Committee on Human Radiation Experiments

EXPERIMENT RECORD FORM

Leave blank any field for which you have no information,
unless it specifically requests you to state that you do not know.

Use the **Comments** section at the end of the form for any information
that does not fit in the spaces provided

Described by on (date) at X **ACHRE**
CIA
DHHS
DOD
DOE
DVA
NASA

Reviewed by on (date) at X **ACHRE**
CIA
DHHS
DOD
DOE
DVA
NASA

CITATION

ACHRE Document #

Other Citation:

Records Now Held By:
Press **ENTER** for choices of location; add new locations if required

---

EXPERIMENT DESCRIPTION

Dates of Research:

REQUIRED FIELD Use dates of the form **MM/DD/YYYY, YYYY** or **YYYY-YYYY.** If the date is not known, enter "Unknown".

Principal Investigator:
REQUIRED FIELD Press **ENTER** for list; add new name if required in the format **First Name M. I. Last Name** without prefixes (e.g. Dr.) or suffixes (e.g. Jr.). Separate complete names by commas. If you do not know the name of the PI, type "Unknown"; if you know only the surname, type "?? Surname".

PI Code: **REQUIRED FIELD** Enter (all capital letters) the first three letters of the PI's last (Z) and first (X) names (e.g. "ZZZXXX"); if only a surname and initials are known, type "ZZZX"; if only the surname is known, type "ZZZ"; if the name is not known, type "UNKNOWN".
Experiment Cutter:

PI's Institution:
Press **ENTER** for list; add new institution if required

City: State (or country):
Press **ENTER** for list of states; add country if appropriate.

Where Experiment Was Performed (if different from above):
Press **ENTER** for list; add new institutions if required.

Co-Researchers:
Press **ENTER** for list; add new name if required in the format **First Name M. I. Last Name** without prefixes (e.g. Dr.) or suffixes (e.g. Jr.). Separate complete names by commas.

Title of Research:
Use the title given in the proposal, protocol or approval document

Approval:
Give the group and its institution that approved this activity

Funding Source Type:
Government Funding
Non-government Funding
No Funding
Funding Type Unknown

If Government funding,
Government Funding--Civilian
Government Funding--Military
Government Funding--Unknown

If Non-government funding,
Non-government Funding--For profit
Non-government Funding--Not-for-profit
Non-government Funding--Unknown

Funder:
Press **ENTER** for list; select all that apply or add new ones, separated by commas.

Grant/Contract: Amount: Period:

Report Citations:
List all published and unpublished reports of this activity; if you have information about reports but no citation, record that information in **Comments**.

Classification:
Unclassified
Confidential
Formerly Restricted Data
National Security Information
Restricted Data
Secret
Top Secret

Classified By
CIA on (date)
DHHS
DOD
DOE
DVA
NASA

Declassified by
CIA on (date)
DHHS
DOD
DOE
DVA
NASA

Government Application
Fallout Effects/Countermeasures--Civilian
Fallout Effects/Countermeasures--Military
Immediate Nuclear Bomb Effects--Civilian
Immediate Nuclear Bomb Effects--Military
Long-range Detection of Foreign Programs
Occupational Hazards
Radiological Warfare
Space Radiation Hazards
Insufficient Evidence to Determine
Evidence suggests government application but not sure

Type of Research **Biodistribution**
Experiment of Opportunity
External--Partial
External--Total
External--Type Unknown
Intentional Release
Therapeutic/Diagnostic--Accepted Technique
Therapeutic/Diagnostic--Experimental
Therapeutic/Diagnostic--Type Unknown
Tracer

RADIATION DESCRIPTION

Does the radiation dose level deserve further investigation?

Yes--explained under Comments
No
Insufficient Data

Internal

Isotope:
Press **ENTER** for choices and choose all that apply; if you add a new isotope, do not use a dash between the symbol and the weight (i.e. U235, not U-235).

Chemical Compound:

Reported Dose:

Administration: **Ingestion**
Inhalation
Injection
Skin Absorption

External

Type:	**Alpha**	Administration:	**Localized**
	Beta		**Whole Body**
	Gamma		
	Neutron		
	Proton		
	X-Ray		
	Other		

Reported Dose:

HUMAN SUBJECTS

If there is no information on subjects, is the experiment worth further investigation? **Yes**
No

Subject Numbers

Male: Total:
Female:

Record subject numbers by gender if known--the total will be automatic; otherwise, indicate total number in that field and a message that gender is unknown will automatically be stamped. If you do not know numbers, ENTER ZERO.

Subject Types

Age

Age over 65--Yes
Age over 65--No
Age over 65--Unknown

Age under 18--Yes
Age under 18--No
Age under 18--Unknown

Age under 7--Yes
Age under 7--No
Age under 7--Unknown

Occupation

Civilian--Yes	**Employee of Investigator/Sponsor--Yes**
Civilian--No	**Employee of Investigator/Sponsor--No**
Civilian--Unknown	**Employee of Investigator/Sponsor--Unknown**

If subject is employee of investigator or sponsor, give name:

Military (Active)--Yes	If Military,	**Military--Air Force**
Military (Active)--No		**Military--Army**
Military (Veteran)--Yes		**Military--Coast Guard**
Military (Veteran)--No		**Military--Navy**
Military--Status Unknown		**Military--But Service Unknown**
Military--Unknown		

Low Income--Yes
Low Income--No
Low Income--Unknown

Medical Status

Fetus--Yes	**Pregnant--Yes**
Fetus--No	**Pregnant--No**
Fetus--Unknown	**Pregnant--Unknown**

Patient--Yes	If patient,	**Patient--Non-terminal**
Patient--No		**Patient--Terminal**
Patient--Unknown		**Condition of Patient Unknown**

Voluntary Status

Imprisoned--Yes	**Self--Yes**	**Volunteers--Yes**
Imprisoned--No	**Self--No**	**Volunteers--No**
Imprisoned--Unknown	**Self--Unknown**	**Volunteers--Unknown**

Institutionalized--Yes
Institutionalized--No
Institutionalized--Unknown

If institutionalized,

Institutionalized--Federal
Institutionalized--State
Institutionalized--Local
Institutionalized--Ownership Unknown

and

Institutionalized--Elderly
Institutionalized--Retarded
Institutionalized--Other
Institutionalized--Type Unknown

If in a hospital, imprisoned or institutionalized, name institution; if not known, enter **Unknown**:

Ethnic/Racial Groups

Asian/Pacific Islander
Black
Hispanic
Native American/American Indian/Alaskan Native
White
Unknown

CONSENT

Consent Was Reportedly Given?

Consent--Yes
Consent--No
Consent--Unknown

If so, how?

Oral
Written
Unknown

Does ACHRE have a consent form?

Consent Form--Yes
Consent Form--No

If **No**, is there a reference to consent forms?

Consent Form Reference--Yes
Consent Form Reference--No

Is the information given to the subjects discussed?

Consent Information--Yes
Consent Information--No

Is there other discussion of consent procedures? **Consent Discussion--Yes**
Consent Discussion--No

PROTOCOL/RECORDS

If you know that protocol or medical records do not exist, enter **No**; if you do not know, enter **Unknown**; if you do know, indicate where they may be found.

Protocol can be found where?

Medical Records can be found where?

CATEGORIES

ACHRE Themes:

Management
Disclosure Consent Voluntariness
Investigator' Attitudes
National Security
Living in the Atomic Age
Power Differentials
Risk/Benefit
Positive Benefits of Research
Government Culpability/Liability

Subject Index:
Press **ENTER** for list; add new terms if required

OTHER CONNECTIONS

Persons:
Press **ENTER** for list; add new name if required in the format **First Name M. I. Last Name** without prefixes (e.g. Dr.) or suffixes (e.g. Jr.). Separate complete names by commas.

Institutions:
Press **ENTER** for list; add new institutions if required

COMMENTS

Use this area (a) to make comments on such topics as the **method of recruiting subjects**, the **type of the subject population**, **questions about dosage**, **leads to further information**; (b) to include further information that does not fit in one of the fields above; and (c) to record any other information you believe useful.