

E X E C U T I V E O F F I C E O F T H E P R E S I D E N T

26-Jun-1996 04:17pm

TO: Elizabeth E. Drye

FROM: Diane Regas
 Domestic Policy Council

CC: Phillip M. Caplan
CC: Rachel E. Levinson
CC: Stephen R. Neuwirth

SUBJECT: Radiation Litigation

FYI (heads up)-in case you get a similar call

I got a call from Cooper Brown seeking WH intervention in discussions regarding the process for solving the "Rochester cases." Mr. Cooper was apparently seeking a meeting for the plaintiff's lawyer involved in the case--on the argument that government processes for solving litigation are policy decisions. I told Mr. Brown that such a meeting sounded inappropriate, and that our IAWG process was designed to decide policy responses to the ACHRE report, not how to decide particular cases.

My guess is that the plaintiffs attorneys are trying to split DOE and DOJ on this issue (apparently the negotiations involve both). I agreed that if DOJ recommended a meeting, I would consider it, but I insisted that it seemed wholly inappropriate.

P.S. I just got another insistent call.

THE WHITE HOUSE
WASHINGTON

February 7, 1995

MEMORANDUM FOR HAROLD ICKES

FROM: PHIL CAPLAN 
SUBJECT: Human Radiation Experiments - University of Rochester

The following memo is to help prepare you for your meeting with Rep. Louise Slaughter (D-NY). With respect to her concern about litigation involving the University of Rochester, the University, its medical school and Strong Memorial Hospital (a University-affiliated hospital) are generally indemnified by the Department of Energy against all litigation and judgements or settlement costs; DOE is currently funding the litigation by paying the University's legal bills.

The family of one of the subjects of the plutonium injection experiments conducted during the 1940s has sued, in a Texas federal court, the University of Rochester, the School of Medicine, Strong Memorial Hospital and Dr. Christine Waterhouse (a doctor at the hospital) for "damages for personal injury or death allegedly caused by its negligent or wrongful acts or omissions while acting within the scope of its employment."

In a letter dated September 6, 1994, the Department of Energy assured the University's counsel that "[w]ith respect to the defendant [the university] being sued as an individual, DOE agrees to reimburse the litigation costs involving the defense of that individual by the University..." There are exceptions to this indemnification such as "the availability of appropriated funds" and "that the actions of the defendants are not covered by any policies of insurance" and "not willful misconduct by senior management."

In an October 20, 1994 letter to DOE, the University sought to clarify these exceptions including the indemnification of Dr. Waterhouse's actions. DOE responded on December 9; the University and Dr. Waterhouse are generally indemnified by DOE for actions taken as part of the Atomic Energy Commission's contract. I have been assured by DOE counsel that it is unlikely that any of the exceptions will be invoked.

Background

In December 1993, Secretary Hazel O'Leary declassified decades worth of documents relating to activities of the Department of Energy and its predecessors including the Atomic Energy Commission. In particular, documents relating to the use of humans as subjects of radiation experiments received significant media attention.

In January 1994, the White House announced that it would form an independent advisory committee to advise the Administration on the ethical and scientific efficacy of the experiments. The Advisory Committee on Human Radiation Experiments was appointed by the President in March and held its first meeting in April.

The Committee, which operates under FACA, is made up of eminent scientists, historians and physicians, and is chaired by Dr. Ruth Faden of Johns Hopkins University. Dr. Faden is one of the country's preeminent ethicists. The Committee is scheduled to make its report in late May or early June.

The University of Rochester

The University of Rochester is a private, independent institution that serves 8,500 students. It is among the top 25 American universities in Federal funding for research and development. During World War II, the University undertook several military research projects. A major client was the U.S. Office of Scientific Research and Development (OSRD), which contracted with the University for more than a hundred projects in chemistry, physics, biology, medicine and psychology. The Manhattan Project, successor to the OSRD in supporting atomic research, looked to the University to provide extensive research and support for medical aspects of the bomb program.

The Rochester project supported two basic activities. The first consisted of technical services, including analysis of periodic medical examination reports for all personnel employed at Manhattan Research Project facilities. The second service Rochester provided to the Manhattan Project was biomedical research. Much of this work focused on biological studies of polonium, radium and plutonium and was intended to establish occupational radiation exposure standards. Rats and other animals were used as subjects in many experiments; human beings were also used as experimental subjects. Most wartime activities at Rochester were secret and related documentation was classified. All documents in the possession of the federal government have since been declassified.

The most "famous" of these experiments at Rochester have been labeled the "plutonium injection experiments." These experiments were one of the subjects (along with the radioactive cereal and milk in a school for retarded boys in Massachusetts) of Congressman Markey's investigation in 1986.

DOE records suggest that the plutonium injection experiments took place at Rochester from 1945 through 1947. Eleven people received plutonium injections; five received doses of polonium and six received injections of uranium. Apparently these individuals were Strong Memorial Hospital patients who were selected on the basis of their medical condition.

OFFICE OF THE GENERAL COUNSEL

U.S. DEPARTMENT OF ENERGY

WASHINGTON, D.C.

FAX #:
COML:



Date: 2/1/95

TO:

Phil Caplan
Cabinet Affairs

FAX NO:

456-6704

VERIFY NO.

456-2572

FROM:

Lisa Schwab

PHONE NO.

202-586-5289

PAGES

22

(Including Cover Sheet)

REMARKS:

HALLENBECK, LASCELL & PINEO*Attorneys at Law*

ONE EXCHANGE STREET

ROCHESTER, NEW YORK 14614-1403

TELEPHONE (716) 423-5900

FAX (716) 423-5910

BRIAN M. ZORN

(716) 423-5912

August 16, 1994

Via Certified Mail, RRR

Marc Johnston, Esq.
Deputy General Counsel
Department of Energy
GC-30
1000 Independence Avenue SW
Washington, D.C. 20585

Re: Notice of suit and demand for the costs of defense and indemnification pursuant to Basic Contract No. W 7401 eng-49, dated May 22, 1943 between the United States of America and the University of Rochester, and subsequent amendments thereto (the Contract)

Dear Mr. Johnston:

We write on behalf of the University of Rochester (the Contractor), which has just been sued for matters arising from the Contractor's performance under the referenced Contract (copy enclosed). A copy of the complaint filed in the United States District Court, Northern District of Texas, captioned Fredna Hadley Allen et al. v. University of Rochester, et al. (94 Civ. 1365X), is also enclosed.

Pursuant to Article XIV, paragraph (c) of the Contract, the Contractor hereby gives notice to the United States that a lawsuit has been commenced against the Contractor, and pursuant to Article XIV, paragraph (c) of the Contract, we demand that the United States assume the costs of defending the lawsuit and that it indemnify the Contractor for any losses or damages incurred therein.

Pursuant to our telephone conversation yesterday, wherein you agreed to accept the Contractor's Notice of Suit and demand (Notice) on behalf of the United States, I am forwarding this Notice to you on behalf of the United States. Notice is also hereby given to the officials listed at the end of, and copied with, this Notice. Please inform me immediately

HALLENBECK, LASCELL & PINEO

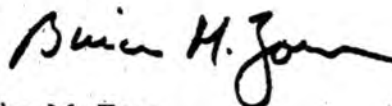
Marc Johnston, Esq.

August 16, 1994

Page 2

if there are other officials whom you believe must receive this Notice on behalf of the United States.

Very truly yours,



Brian M. Zorn

BMZ/kg

cc: The Honorable Janet Reno
Attorney General of the United States

Robert Nordhaus, Esq.
General Counsel
Department of Energy

Lt. General Arthur Williams
Commander
Army Corps of Engineers

Lester Edelman, Esq.
Chief Counsel
Army Corps of Engineers

Ellyn R. Weiss, Esq.
Special Counsel and Director
Office of Human Radiation Experiments
Department of Energy

SEP-01-1994 13:34 FROM DOE/CH OCC 252-2183

TO

82025863437 P.06

HALLENBECK, LASCELL & PINEO*Attorneys at Law*

ONE EXCHANGE STREET

ROCHESTER, NEW YORK 14614-1403

TELEPHONE 716 423-8800

FAX 716 423-8810

August 30, 1994

BRIAN M. ZORN
716 423-8812**VIA TELECOPY AND U.S. MAIL****U.S. Department of Energy
Chicago Operations Office
Attn: GILD Arnold Samuel
9800 S. Cass Avenue
Argonne, Illinois 60439**

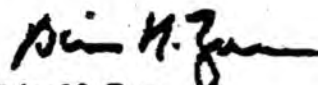
Re: Notice of suit and demand for the costs of defense and indemnification pursuant to Basic Contract No. W 7401 eng-49, dated May 22, 1943 between the United States of America and the University of Rochester, and subsequent amendments thereto (the Contract)

Dear Mr. Samuel:

I write to follow up on my August 16, 1994 letter to Marc Johnston (copy enclosed) and our conversation yesterday. As we discussed, our notice of suit and demands for defense and indemnification costs on behalf of the University of Rochester include the following defendants designated in the Allen complaint: the University of Rochester, the University of Rochester School of Medicine and Dentistry, Strong Memorial Hospital and Dr. Christine Waterhouse. The University of Rochester School of Medicine and Dentistry and Strong Memorial Hospital are, and at all relevant times were, divisions of the University of Rochester. Dr. Christine Waterhouse at all relevant times was a full time employee of the University of Rochester.

Please let me know if you need any further information. We look forward to your early response to the University of Rochester's demand for defense and indemnification costs. Thank you again for your assistance.

Very truly yours,



Brian M. Zorn

BMZ/kg
Encl.



Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, Illinois 60439

SEP 6 1994

Brian M. Zorn, Esq.
Hallenbeck, Lascell & Pineo
Attorney at Law
One Exchange Street
Rochester, New York 14614-1403

SUBJECT: YOUR NOTICE OF SUIT AND DEMAND FOR THE COSTS OF DEFENSE AND INDEMNIFICATION PURSUANT TO BASIC CONTRACT NO. W-7401-ENG-49, DATED MAY 22, 1943 BETWEEN THE UNITED STATES OF AMERICA AND THE UNIVERSITY OF ROCHESTER, AND SUBSEQUENT AMENDMENTS THERETO (THE CONTRACT) RESPECTING FREDNA HADLEN ALLEN ET AL. V. UNIVERSITY OF ROCHESTER, ET AL. 394 CIV-1365X)

This is in response to your August 16, 1994 letter to Marc Johnston, Deputy General Counsel for Judicial Litigation, on behalf of the University of Rochester, as supplemented by your letter dated August 30, 1994. Please note Contract No. W-7401-Eng-49 was last redesignated as Contract No. DE-AC02-76EV03490 and was during the 70's designated as Contract Nos. AT(30-1)-49 and AT(11-1)-3490, respectively, when Modification Nos. 104 and 111 were entered into. Modification No. 104 appears to have been the one in effect when Elmer Allen was seen at Rochester in mid-1973. As a result of our review of the pertinent contract provisions that were in effect at that time, approval is granted to proceed with the defense of the action in good faith pursuant to Article VIII, Litigation and Claims of said Modification No. 104. Furthermore, based upon your supplementary submission of August 30, 1994, it is our understanding that Strong Memorial Hospital and the University of Rochester School of Medicine and Dentistry are part of the University of Rochester and consequently this approval covers them as well.

With respect to the defendant being sued as an individual, DOE agrees to reimburse the litigation costs involving the defense of that individual by the University but reserves, at this time, any determination as to responsibility for any judgements that might be rendered against that individual.

The approvals granted above are subject to the following understandings:

1. The obligation to reimburse the University for litigation costs for this defense is subject to the availability of appropriated funds;
2. That the action against any of the defendants noted above are not covered by any policies of insurance;
3. DOE's obligations to the University with respect to any liabilities to third parties resulting from the suit is subject to paragraph 6. of Article IV, Obligation of Funds, Allowable Costs, and Payments of Modification No. 104;

Brian M. Zorn

- 2 -

SEP 6 1994

4. The University has retained the law firm of Johnson and Wortley with Mr. Gaynell C. Methvin as lead to undertake a consolidated defense of the above action with the other named Universities upon the same terms agreed to by the other named Universities;
5. The University's management of the activities of retained counsel shall conform to the requirements of Attachment 1 to the Department's Litigation Management Procedures, copy enclosed, including the preparation of a Staffing and Resource Plan. Said Plan should be furnished to Steven A. Silbergleid, Deputy Chief Counsel, U.S. Department of Energy, Chicago Operations Office, 9800 S. Cass Avenue, Argonne, IL. 60439 within 30 days after an answer is filed. In addition, to the maximum extent possible, the terms of engagement should conform to the attached Acquisition Letter, 59 FR 44981, 8/31/94; and
6. To ensure adequate coordination, Mr. Methvin should be requested to furnish advance copies of all proposed substantive filings to Marc Johnston, Deputy General Counsel for Litigation, GC-20, Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C. 20585 and Steven A. Silbergleid for prior review/comment.

Since the law firm selected, Johnson and Wortley, as well as the lead litigator, Gaynell C. Methvin, will also represent both the University of California and the University of Chicago, please provide, as soon as possible, the University of Rochester's recommendations regarding how costs should be allocated among the various defendants. In this regard, we suggest that the University of Rochester attempt to work out an appropriate allocation with the other defendants and outside counsel as soon as possible.

Furthermore, to simplify the payment of billings, it is considered practical that the University of California could receive a consolidated bill for services rendered on behalf of all defendants with payment to be made on behalf of all defendants under Contract DE-AC03-76SF00098, the contract between the Regents and DOE for operation of the Lawrence Berkeley Laboratory. Lawrence Berkeley Laboratory would, of course, make appropriate arrangements to be reimbursed by the University of Chicago and the University of Rochester.

If you have any questions, please contact Steven A. Silbergleid, Deputy Chief Counsel, at (708)252-2035.

Sincerely,

June M. Wiinikka
June M. Wiinikka
Contracting Officer

Enclosures:
As stated

cc: Marc Johnston, DOE

HALLENBECK, LASCELL, NORRIS & ZORN*Attorneys at Law*

ONE EXCHANGE STREET

ROCHESTER, NEW YORK 14614-1403

TELEPHONE (716) 423-8900

FAX (716) 423-8910

September 22, 1994

VIA TELECOPY

June M. Wiiniika
Contracting Officer
Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, Illinois 60439

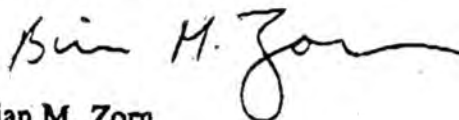
Re: Our Notice of suit and demand for the costs of defense and indemnification pursuant to Basic Contract No. W 7401 eng-49, dated May 22, 1943 between the United States of America and the University of Rochester, and subsequent amendments thereto (the Contract) Respecting Fredna Hadlen Allen et al. v. University of Rochester, et al. 394-CIV-1365X)

Dear Ms. Wiiniika:

I write again regarding your September 6, 1994 letter. I received this letter by fax and have not yet received the hard copy or any enclosures. We very much need as soon as possible copies of all documents referred to in your letter as well as a complete copy of contract no. W-7401-eng-49, dated May 22, 1943, and all subsequent modifications.

As mentioned in prior correspondence, we have several questions about your September 6, 1994 letter, and must have the requested documents to understand fully and respond to your letter. We appreciate anything that you can do to provide the requested documents as soon as possible.

Very truly yours,



Brian M. Zorn

BMZ/kg

cc: Marc Johnston ✓
Deputy General Counsel

Steven A. Silbergleid
Deputy Chief Counsel

HALLENBECK, LASCELL NORRIS & ZORN*Attorneys at Law*

ONE EXCHANGE STREET

ROCHESTER, NEW YORK 14614-1403

TELEPHONE (716) 423-5900

FAX (716) 423-5910

September 23, 1994

VIA TELECOPY

Marc Johnston, Esq.
Deputy General Counsel
GC-20
Forrestal Building
1000 Independence Avenue, S.W.
Washington, D.C. 20585

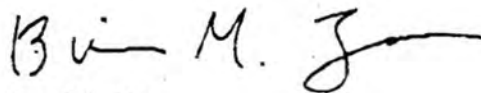
Re: Elmer Allen, et al. v. University of Rochester, et al.

Dear Marc:

If at all possible, I would like to speak with you by telephone later today or at the latest early next week to arrange a meeting. The meeting would be to discuss the University of Rochester's intention to serve Notice on and seek certification by the Attorney General that the above-referenced action is an action against the United States pursuant to the Federal Tort Claims Act and is also an action against a contractor pursuant to the Atomic Testing Liability Act, 42 U.S.C. § 2212.

I would like to discuss our reasoning for serving these notices and seeking certification under the statutes. I will plan to call you around 3:30 this afternoon.

Very truly yours,



Brian M. Zorn

BMZ/kg

cc: Steven A. Silbergleid, Esq. (via telecopy)
June M. Wiinikka (via telecopy)
John F. Lundberg, Esq. (via telecopy)
Sam Golden, Esq. (via telecopy)

HALLENBECK, LASCELL, NORRIS & ZORN*Attorneys at Law*

ONE EXCHANGE STREET

ROCHESTER, NEW YORK 14614-1403

TELEPHONE (716) 423-5900

FAX (716) 423-5910

September 26, 1994

**VIA TELECOPY (w/o attachments), AIRBORNE AND
CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

The Honorable Janet Reno
Attorney General of the United States
Department of Justice
Tenth and Constitution Avenues, N.W.
Room 4400
Washington, D.C. 20530

Marc Johnston, Esq.
Deputy General Counsel
Department of Energy, GC-20
Forrestal Building
1000 Independence Ave., N.W.
Washington, D.C. 20585

The Honorable Paul Coggins
United States Attorney for the Northern District of Texas
1100 Commerce St
Third Floor
Dallas, TX 75242

Re: Notice of suit against an employee of the government and request for
certification pursuant to the Federal Tort Claims Act

Dear Madame Attorney General, Mr. United States Attorney and Mr. Johnston:

We write on behalf of the University of Rochester (the University),¹ the Contractor pursuant to Basic Contract No. W 7401 eng-49, dated May 22, 1943 with the United States, and subsequent modifications thereto (the Contract). Pursuant to the Federal Tort Claims Act (FTCA), 28 U.S.C. §§ 1346 and 2670 *et seq.*, the University hereby gives notice that it has been sued in its capacity as an employee of the United States, as defined by the FTCA, for damages for personal injury or death allegedly caused by its negligent or wrongful acts or omissions while acting within the scope of its employment (the lawsuit).

¹ The University of Rochester includes the University of Rochester School of Medicine and Dentistry, Strong Memorial Hospital and Dr. Christine Waterhouse.

HALLENBECK, LASCELL NORRIS & ZORN

September 26, 1994

Page 2

Pursuant to 28 U.S.C. § 2679(d), the University hereby requests that you certify that the lawsuit is within the provisions of the FTCA and that pursuant to the FTCA you take appropriate action to substitute the United States as defendant in the lawsuit and defend the lawsuit.

✓
Case is
in TX
District
Court

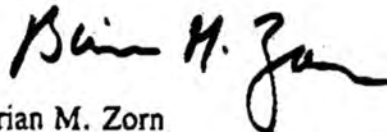
Pursuant to the FTCA, the University hereby delivers all processes served on it in the lawsuit. A copy of the complaint filed in the United States District Court, Northern District of Texas, captioned Fredna Hadley Allen, et al. v. The University of Rochester, et al. (94 CIV 1365 X), is enclosed. In the lawsuit, the University's response to the complaint is due on or before September 30, 1994. The University's Texas counsel, Johnson & Wortley, advises that it is not likely that plaintiffs will extend the September 30 response date. Therefore, unless we hear from you otherwise, to protect the government's interest, an answer raising all appropriate affirmative defenses will be interposed on behalf of the University on September 30.

Pursuant to the Contract, on August 10, 1994 the University sent a notice of suit and demand for the costs of defense and indemnification to the United States. In response to that notice, by letter dated September 6, 1994 from June M. Wiinikka, Contracting Officer, Department of Energy (DOE), the University was notified that DOE agrees to reimburse the University for litigation defense costs. A copy of the September 6 letter is enclosed.

Under cover of a separate letter dated September 26, 1994 addressed to the Attorney General, the University also gave notice that the lawsuit comes within the Atomic Testing Liability Act, 42 U.S.C. § 2212 (ATLA), and requested that therefore the Attorney General take appropriate action to substitute the United States as defendant in the lawsuit and defend the lawsuit as required by ATLA.

Please notify me immediately if in your view there are additional procedures we should follow pursuant to the FTCA. Thank you for your attention to this matter.

Respectfully yours,



Brian M. Zorn

BMZ/kg
Encl.

HALLENBECK, LASCELL, NORRIS & ZORN*Attorneys at Law*

ONE EXCHANGE STREET

ROCHESTER, NEW YORK 14614-1403

TELEPHONE (716) 423-5900

FAX (716) 423-5910

September 26, 1994

**VIA TELECOPY (w/o attachments), AIRBORNE AND
CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

The Honorable Janet Reno
Attorney General of the United States
Department of Justice
Tenth and Constitution Avenues, N.W.
Room 4400
Washington, D.C. 20530

Re: Notice of suit against a contractor under contract with the United States to carry out an atomic weapons testing program and request for certification pursuant to 42 U.S.C. § 2212(b)

Dear Madame Attorney General:

We write on behalf of the University of Rochester,¹ the Contractor pursuant to Basic Contract No. W 7401 eng-49, dated May 22, 1943 with the United States, and subsequent modifications thereto (the Contract). Pursuant to the Atomic Testing Liability Act, 42 U.S.C. § 2212 (ATLA), the Contractor hereby gives notice that it has been sued for damages for personal injury or death allegedly due to exposure to radiation based on acts by the Contractor in carrying out an atomic weapons testing program under the Contract (the lawsuit).

Pursuant to ATLA, 42 U.S.C. § 2212(b), the Contractor hereby requests that you certify that the lawsuit is within the provisions of the Federal Tort Claims Act (FTCA), 28 U.S.C. §§ 1346 and 2670 *et seq.*, and that pursuant to ATLA and the FTCA you take

¹ The University of Rochester includes the University of Rochester School of Medicine and Dentistry, Strong Memorial Hospital and Dr. Christine Waterhouse.

HALLENBECK, LASCELL NORRIS & ZORN

The Honorable Janet Reno

September 26, 1994

Page 2

appropriate action to substitute the United States as defendant in the lawsuit and defend the lawsuit.

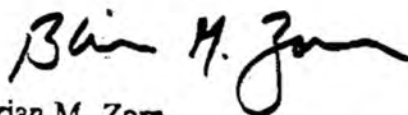
Pursuant to ATLA, the Contractor hereby delivers all processes served on it in the lawsuit. A copy of the complaint filed in the United States District Court, Northern District of Texas, captioned Fredna Hadley Allen, et al. v. The University of Rochester, et al. (94 CIV 1365 X), is enclosed. In the lawsuit, the Contractor's response to the complaint is due on or before September 30, 1994. The Contractor's Texas counsel, Johnson & Wortley, advises that it is not likely that plaintiffs will extend the September 30 response date. Therefore, unless we hear from you otherwise, to protect the government's interest an answer raising all appropriate affirmative defenses will be interposed on behalf of the Contractor on September 30.

Pursuant to the Contract, on August 10, 1994 the Contractor sent a notice of suit and demand for the costs of defense and indemnification to the United States. In response to that notice, by letter dated September 6, 1994 from June M. Wiinikka, Contracting Officer, Department of Energy (DOE), the Contractor was notified that DOE agrees to reimburse the Contractor for litigation defense costs. A copy of the September 6 letter is enclosed.

Under cover of a separate letter dated September 26, 1994 addressed to the Attorney General, the United States Attorney for the Northern District of Texas, and Counsel to the Department of Energy, the Contractor also gave notice that the lawsuit comes within the FTCA and requested that, therefore, the lawsuit be certified as within the FTCA and that appropriate action be taken to substitute the United States as defendant in the lawsuit and defend the lawsuit.

Please notify me immediately if in your view there are additional procedures we should follow pursuant to ATLA. Thank you for your attention to this matter.

Respectfully yours,



Brian M. Zorn

BMZ/kg

Encl.

cc: The Honorable Paul Coggins, U.S. Attorney for the Northern District of Texas
Marc Johnston, Esq., Deputy General Counsel, Department of Energy

SEP-29-1994 10:38 FROM DOE/CH OCC 252-2183

TO

82025863437 P.02



Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, Illinois 60439

September 29, 1994

Ms. Christine Burke, Esq.
Office of Counsel to the
Medical Center
University of Rochester
601 Elmwood, Box 308
Rochester, New York 14642

Dear Ms. Burke:

SUBJECT: ELMER ALLEN, ET AL., V. UNIVERSITY OF ROCHESTER, ET AL.

This confirms your telephone conversation of September 26, 1994 with Mr. Samuel of my staff. As indicated by June Wiinikka's letter of September 6, 1994 to Mr. Brian Zorn, Esq. of the law firm who wrote to us on behalf of the University of Rochester (University), the law firm of Johnson and Wortley was authorized to represent the University and the other parties to the suit with a single defense. It does not authorize the continued use by the University of Mr. Zorn's firm in this matter. If the University wishes to have his firm's continued involvement in reviewing the authorized firm's work, it may do so at its own expense. If the authorized firm has issues tied to New York law that it believes would be appropriate to involve that firm, it should request DOE to authorize their use to as to such specifically identified issues.

As was indicated in our conference call of September 28, 1994, we were extremely concerned over Mr. Zorn's letter of September 26, 1994 to the Attorney General of the United States which was sent without prior coordination with the Department. We recognize, however, that you had similar concerns with his action and we assume that his perceived need to take timely action was the motivation.

A copy of June Wiinikka's above-referenced letter of September 6, 1994 with enclosures is also provided for your information. Should you have any questions regarding the foregoing, you may contact me at (708) 252-2035.

Steven A. Silberglied
Steven A. Silberglied
Deputy Chief Counsel

Enclosure:
As Stated

cc: Marc Johnston, DOE
June Wiinikka, CD



U.S. Department of Justice

Washington, D.C. 20530

October 11, 1994

Via Certified Mail
Return Receipt Requested

Brian M. Zorn, Esq.
Hallenbeck, Lascell, Norris & Zorn
One Exchange Street
Rochester, New York 14614-1403

Re: Notice of suit against a contractor, University of Rochester
and request for certification pursuant to 42 U.S.C. §2212(b)

Dear Mr. Zorn:

This letter is in response to your letter telecopied to the Attorney General on September 26, 1994, concerning the suit pending against the University of Rochester in the United States District Court for the Northern District of Texas, captioned Fredna Hadley Allen, et al. v. The University of Rochester, et al. (94 CIV 1365 X). In your letter, you purported to give notice of the suit to the Attorney General pursuant to the Atomic Testing Liability Act, 42 U.S.C. §2212, requested certification that the lawsuit is within the provisions of the Federal Tort Claims Act, and requested that appropriate steps be taken to substitute the United States as defendant in the lawsuit and to defend the lawsuit. The attachments referred to in your letter did not accompany the telecopy.

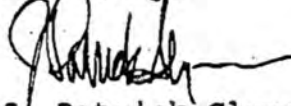
After reviewing your letter and discussing the substance of your request with the Office of General Counsel, Department of Energy (DOE), we have determined that your request is misconceived and that neither of the two cited statutory provisions is applicable.

Under the Federal Tort Claims Act, the United States may be substituted as a defendant in certain cases brought against an "employee of the Government" (28 U.S.C. §2679). As a former DOE contractor, however, the University of Rochester was not an "employee of the Government" within the meaning of the Act (see 28 U.S.C. §2671). Accordingly, the Federal Tort Claims Act provides no basis for substitution of the United States as defendant in place of the University.

In addition, the Atomic Testing Liability Act (ATLA), which may allow for substitution of the United States as a defendant in place of certain Government contractors, applies only to claims arising out of a contractor's involvement in an "atomic weapons testing program" (42 U.S.C. §2212(b)(1)). Because the claims against the University of Rochester in the Allen case do not arise out of an atomic weapons testing program, ATLA provides no basis for substituting the United States as a defendant in the case.

For the foregoing reasons, your requests for certification, substitution of the United States as defendant, and defense of lawsuit by the United States are denied.

Sincerely,



J. Patrick Glynn
Director, Torts Branch
Civil Division

cc: Paul Coggins
United States Attorney
Northern District of Texas

Marc Johnston
Deputy General Counsel
Department of Energy

NOV-04-1994 14:39 FROM DOE/CH OCC 252-2183

TO

712025863437 P.04

UNIVERSITY OF
ROCHESTER
MEDICAL CENTER

STRONG MEMORIAL HOSPITAL
SCHOOL OF MEDICINE AND DENTISTRY
SCHOOL OF NURSING

OFFICE OF COUNSEL TO THE MEDICAL CENTER

VIA TELECOPY AND U.S. MAIL

October 20, 1994

Steven A. Silbergeld, Esq.
Deputy Chief Counsel
Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, IL 60439

*Clarkston
&
answered
by
D.E.*

RE: Notice of Suit and Demand for Defense and Indemnification under Basic Contract No. W-7401-eng-49, dated May 22, 1943, between the United States of America and the University of Rochester, and subsequent amendments thereto (the Contract) respecting Radna Hadley Allen, et al. v. The University of Rochester, et al. (394 CV-13650)

Dear Mr. Silbergeld:

Since the Government's September 6, 1994 response to the request of the University of Rochester (including its divisions and its employee, Dr. Waterhouse) for defense and indemnification was based on and referred to several documents, we requested copies of those documents so that we could better understand and respond to the Government's position. We have reviewed the numerous documents you were kind enough to provide to us, completed our preliminary analysis of these documents, and now write to clarify with you the Government's September 6 response.

In particular, we need to clarify the basis of the Government's reserving determination of its responsibility to indemnify for any judgments rendered against Dr. Waterhouse, and the first three numbered understandings in the September 6 letter. The language from that letter regarding defense and indemnification of Dr. Waterhouse and the first three understandings is set forth below along with our corresponding comments.

The language pertaining to defense and indemnification of Dr. Waterhouse is:

with respect to the defendant being sued as an individual, DOE agrees to reimburse the litigation costs involving the defense of that individual by the University but reserves, at this time, any determination as to responsibility for any judgments that might be rendered against that individual.

601 Elmwood Avenue, Box 308
Rochester, New York 14642-8308
(716) 275-1089 Fax (716) 275-1024

NOV-04-1994 14:39 FROM DOE/CH OCC 252-2183

TO

712025863437

P.05

Steven A. Silbergeld, Esq.
October 20, 1994
Page 2

As we understand this language, the Government (subject to the 6 numbered understandings) agrees to provide the costs of Dr. Waterhouse's defense but reserves decision on whether it will indemnify any judgments rendered against Dr. Waterhouse. Based upon conversations with Government representatives, we understand that the sole factor in the Government's determination about indemnification of any judgment against Dr. Waterhouse is whether Dr. Waterhouse was acting in accordance with her duties as a University of Rochester full-time faculty member during the contact in issue with Mr. Allen. In other words, assuming that Dr. Waterhouse was acting in accordance with those duties, the Government will be responsible for both the costs of her defense and any judgments rendered against her. We also assume that the Government will be responsible for any settlements made on behalf of Dr. Waterhouse and approved by the Government.

Understanding 1 provides:

the obligation to reimburse the University for litigation costs for this defense is subject to the availability of appropriated funds;

We assume that the term "litigation costs" as used in this understanding includes defense and indemnification for all causes of action (whether negligence, intentional torts or otherwise) and types of damages (whether compensatory or punitive) alleged in the Allen lawsuit. We further assume the same applies to Dr. Waterhouse's defense and indemnification (to the extent the Government agrees to or is otherwise found to be responsible for her indemnification).

Understanding 2 provides:

the action against any of the defendants noted above are not covered by any policies of insurance;

We assume, consistent with Modification No. 104, Article IV, paragraph 6, the University and Dr. Waterhouse "shall be deemed to be covered by insurance" only to the extent of the insurance proceeds received by them" (assuming proper notification of the insurance carriers by the University).

OCT-20-1994 11:30 FROM DOE/CH OCC 252-2183

TO

712025863437 P.02

UNIVERSITY OF
ROCHESTER
MEDICAL CENTER

STRONG MEMORIAL HOSPITAL
SCHOOL OF MEDICINE AND DENTISTRY
SCHOOL OF NURSING

OFFICE OF COUNSEL TO THE MEDICAL CENTER

October 11, 1994

VIA TELECOPY AND U.S. MAIL

Steven A. Silbergeld, Esq.
Deputy Chief Counsel
Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, IL 60439

RE: FREDNA HADLEY ALLEN, ET AL. V. UNIVERSITY OF ROCHESTER (394 CIV-1365X)

Dear Mr. Silbergeld:

Thank you for your recent correspondence enclosing numerous contract modifications and related documents. As you know, we have had questions about the scope and extent of the Government's defense and indemnification. We needed the documents that you forwarded to us to complete our analysis of the defense and indemnification. We plan to complete at least our preliminary review and analysis of these documents by next week.

As soon as we have done so, we would like to clarify with you the Government's September 6, 1994 response to the University of Rochester's request for defense and indemnification. As you know, it was with the hope and expectation that we would favorably resolve the indemnification issue that we deferred to the Government's request that the ATLA and FTCA affirmative defenses be deleted from the Answer. We still remain confident that we will resolve the indemnification issue and we are willing to work cooperatively with you to resolve this issue. However, if we cannot resolve the indemnification issue, the University will need to re-evaluate its position in the ATLA and FTCA issues.

I will be contacting you shortly to schedule a meeting or telephone conference so that we can timely resolve these issues.

Very truly yours,



Christine Burke

BMZ/kg

cc: Brian M. Zorn, Esq.
Alan Rich, Esq.

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601 Elmwood Avenue, Box 308
Rochester, New York 14642-8308
(716) 275-2059 Fax: (716) 273-1024

NOV-04-1994 14:38 FROM DOE/CH OCC 252-2183

TO

712025863437 P.02

UNIVERSITY OF
ROCHESTER
MEDICAL CENTER

TELECOPY AND U.S. MAIL

STRONG MEMORIAL HOSPITAL
SCHOOL OF MEDICINE AND DENTISTRY
SCHOOL OF NURSING

OFFICE OF COUNSEL TO THE MEDICAL CENTER

November 3, 1994

Steven A. Silbergleid, Esq.
Deputy Chief Counsel
Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, IL 60439

Dear Mr. Silbergleid:

Enclosed please find a copy of a letter from Patricia Medina to Brian Zorn requesting that Brian Zorn assist Johnson and Wortley with the location of documents maintained at the University of Rochester in connection with the Fredna Allen University of California suit. I am writing to you to insure that this request by Johnson and Wortley is acceptable to DOE in that it is our intent to have these expenses covered in accordance with the terms and conditions of the DOE's indemnification letter to us.

I have previously instructed Mr. Zorn that he is not to do any work on the Allen matter except at the request and under the direction of the Johnson and Wortley firm. From my understanding of what Johnson and Wortley has requested Mr. Zorn to do, it obviously is more cost efficient for local counsel to assist in locating documents than it is to have Texas counsel fly into Rochester and remain here during the course of a document search. It also would not duplicate any work done by Johnson and Wortley. If you have any problems with this please let me know as soon as possible.

Very truly yours,

Christine E. Burke

Christine E. Burke, Esq.
Associate Medical Center Counsel
Office of Counsel to the Medical Center

CEB:mk
Enclosure

cc Patricia J. Medina
chrysd@rochester.edu

601 Elmwood Avenue, Box 308
Rochester, New York 14642-0308
(716) 275-2059 Fax (716) 273-1024



Department of Energy
Chicago Operations Office
9800 South Cass Avenue
Argonne, Illinois 60439

December 9, 1994

*Answered to
Cf. 1-1-1*

Christine E. Burke, Esq.
Associate Medical Center Counsel
University of Rochester
Office of Counsel to the Medical Center
601 Elmwood Avenue, Box 308
Rochester, New York 14642-8308

Dear Ms. Burke:

SUBJECT: FREDNA HADLEY ALLEN, ET AL. V. THE UNIVERSITY OF ROCHESTER, ET AL. (394 CIV-1365X)

This letter is in response to your October 20, 1994 letter to me relative to the subject lawsuit.

The reservation respecting Dr. Waterhouse related to the Department of Energy's (DOE) lack of knowledge concerning: her status with the University, i.e., whether she was an employee at the time in question; whether it is University policy to provide legal representation and assume responsibility for any judgment/settlements for any employees acting within the scope of their employment; and, whether she was "managerial personnel" as the term is used in Article IV.6.e. of Modification No. 104. If Dr. Waterhouse was an employee acting within the scope of her employment and not "managerial personnel" your assumptions are correct. If she was "managerial personnel" as defined therein, then DOE's obligations with respect to Dr. Waterhouse are subject to the limitations stated in Article IV.6.e.

Except as noted above, we agree with your assumption concerning what you identify as Understanding 1, since it was designed to address what is covered in Article IV. 5.a.(7.) of Modification No. 104, provided Subparagraph 6.e. of that Article is not operative.

We agree with your assumption respecting what you refer to as Understanding 2, but note that the pertinent contract language (Modification No. 104, Articles VIII.(b) and IV.6) requires the University to preserve any rights against insurance carrier(s) for defense costs, etc., and possibly pursue those rights for our benefit; albeit at our expense pursuant to Article IV.5.a.7.

We believe your assumptions concerning Understanding 3 are correct subject to the above stated clarifications.

Christine E. Burke, Esq.

- 2 -

December 9, 1994

Further, Mr. Samuel advised you that we needed an estimate as a basis to request funding for your defense costs. Based upon your oral estimate, we have initiated a request for funding (see enclosed letter; please note this is a request for allocation of already appropriated funds, not an appropriation request) but we cannot anticipate the time it will take to obtain a response.

You are also reminded of the applicability of Understanding 5 of the Department's letter of September 6, 1994 to Brian Zorn, particularly of the requirement to submit a Staffing and Resource Plan which has not yet been received.

Steven A. Silbergeld
Steven A. Silbergeld
Deputy Chief Counsel

Enclosure:
As Stated

The University of Rochester

The Site Today

THE UNIVERSITY OF ROCHESTER is a private, independent institution on a 534-acre campus in Rochester, NY. Rochester has about 8,500 enrolled students and is among the top 25 American universities in Federal funding for research and development. Technical research centers include the Institute of Optics, the Laboratory for Laser Energetics, and the Strong Memorial Hospital. Other specialties include schools of music, management, medicine, and nursing.

Site History

From 1850 through 1918, the institution was a liberal arts college. In 1918, it became a university and established professional schools and doctoral programs. The university invested in state-of-the-art scientific instruments, including a cyclotron and a million-volt x-ray machine. These developments brought several prominent scholars to Rochester, including Lee A. DuBridge in physics, W. Albert Noyes in chemistry, and Curt Stern in biology. In 1925, Stafford L. Warren began his service at the University of Rochester School of Medicine and Dentistry, where he served as the Department of Radiology chief.

The Manhattan Project looked to the university to provide extensive research and support for medical aspects of the bomb program.

During World War II the university undertook several military research projects. A major client was the U.S. Office of Scientific Research and Development (OSRD), which contracted with Rochester for more than a hundred projects in chemistry, physics, biology, medicine, and psychology. The Manhattan Project, successor to the OSRD in supporting atomic research, looked to the university to provide extensive research and support for medical aspects of the bomb program. This program began in 1943 when Stafford Warren was appointed first as a consultant and later as Chief of the Manhattan Project Medical Section. Apart from Warren's expertise,

Rochester was selected as a medical research center because of the extensive biological studies with cyclotron-produced radioactive isotopes conducted at the medical school. A contract established a formal Manhattan Project program at the university. This program grew rapidly, and by the end of the war the total staff size reached about 350.

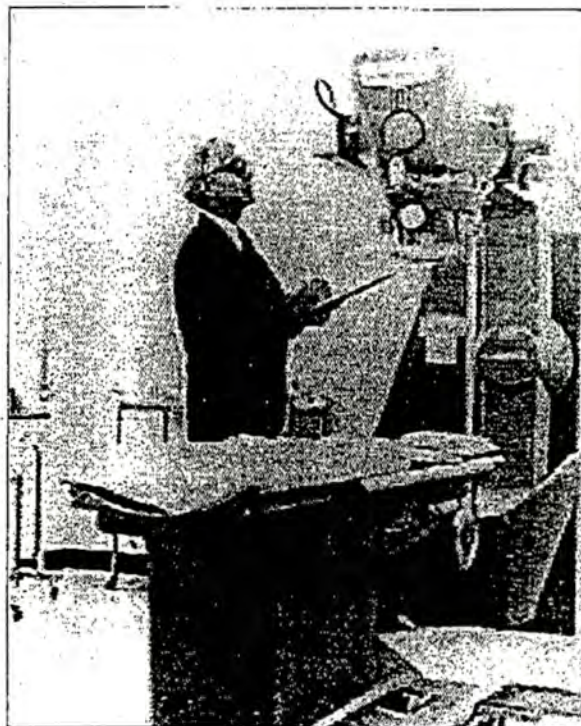


Figure 38. An AEC inspector checking radiation equipment for safety at Oakland Navy Hospital (circa 1973).

The Rochester project supported two basic activities. The first consisted of technical services, including analysis of periodic medical examination reports for all personnel employed at Manhattan Project facilities. Rochester also advised these facilities on employee health protection issues and developed radiation measurement instruments, and staff traveled to various Manhattan Project sites to measure radiation and toxic dusts.

The second service Rochester provided to the Manhattan Project was biomedical research. Much of this work focused on biological studies

Human Radiation Experiments: The DOE Roadmap to the Story and the Records

of polonium, radium, and plutonium and was intended to establish occupational radiation exposure standards. Rats and other animals were used as subjects in many experiments designed principally to measure bodily distribution and excretion of these substances. Human beings were also used as experimental subjects. Most wartime activities at Rochester were secret and related documentation was classified.

The second service Rochester provided to the Manhattan Project was biomedical research.

After the war, Rochester received a substantial AEC contract to operate an Atomic Energy Project (AEP). The university created a Department of Radiation Biology at the medical school to administer this contract. With all of its former technical services now performed by the AEC Health and Safety Laboratory in New York, Rochester focused on research and education activities related to the biomedical aspects of nuclear energy. Security eased to the point where nearly all AEP projects were unclassified by 1950. Most wartime research was also declassified and published in the open scientific literature.

Through the Atomic Energy Project, the university established a preeminent program in radiation biology. In 1950, Rochester offered the first doctorate degree in radiation biology, and many influential scientists passed through this program. During the 1950s, research emphasis shifted from acute radiation effects to molecular aspects of radiation damage in biological systems. Activities under the AEP also fostered extensive work involving nuclear materials in pharmacology and biochemistry.

Until the early 1960s, the AEC funded all activities of the university's Department of Radiation Biology through the Atomic Energy Project. Limitations on AEC funds led Rochester in 1963 to solicit funding from the National Institutes of Health and the National Science Foundation. Despite this shift, AEP research interests remained focused in areas that originated during the war or shortly thereafter: aerosols, cancer research, internal emitters, and basic radiobiol-

ogy. AEC commitment to the program, however, declined and successor agencies also had limited interest in the AEP. During the 1980s DOE terminated the project and turned all facilities over to the university.

Site Human Radiation Experiments

As noted, Rochester was a hub for Manhattan Project biomedical research. As part of this activity, the University also served as a major center of human radiation experiments. Documents suggest that Stafford Warren arranged a cooperative experimentation plan involving the Rochester and Los Alamos projects. This plan called for separate human metabolism studies with at least five different substances: plutonium, uranium, polonium, and radioactive lead, each with 10 subjects; and radium, with 5 subjects. Rochester selected the subjects, arranged for their stay at the university hospital, administered the substances, and collected samples of blood and excreta. Los Alamos analyzed the samples, determined concentrations of the administered substances, and determined rates of excretion. The stated purpose of these experiments was to gain knowledge about the behavior of the substances in the body so that researchers could establish standards for Manhattan Project workers.

Rochester was a hub for Manhattan Project biomedical research and also served as a major center of human radiation experiments.

Evidence suggests that studies involving at least three of these substances took place at Rochester from 1945 through 1947: Eleven people received plutonium injections; 5 received doses of polonium (four injections and one oral dose); and 6 received injections of uranium. Apparently these individuals were Strong Memorial Hospital patients who were selected on the basis of their medical condition. For the plutonium injections, documents show that Rochester personnel carefully selected each subject and prepared separate protocols for each injection. A 1974 AEC investigation of the plutonium injections was unable to find documentary evidence that the university obtained consent from these subjects.

Chapter 2. Narratives and Records Series—Institutional Areas: The University of Rochester

After 1947, biomedical aspects of the Rochester Atomic Energy Project focused primarily on animal studies, although human subjects were used on occasion. Individual site experiments are detailed in Chapter 3.

Site Records Collections

Documents have been found that shed light on Rochester's role in biomedical support for the MED or its successors, but these materials are primarily in files focusing on other topics. No body of records for the Rochester project have been found within DOE, although documents have been found in other files that discuss activities at the university during the war and afterwards. Of particular value are Rochester-related documents in the Plutonium Injection Investigation Files and the Ottinger/Markey Investigation Files (listed earlier under the headquarters series), which document aspects of the Rochester human radiation experiments occurring during and just after the war. Additional documents have been found in series at Oak Ridge, Lawrence Berkeley Laboratory, and the National Archives.

DOE has contacted Rochester to learn what records the university may have relevant to hu-

man radiation experiments. The university is involved in litigation in this area and has shown caution in communicating the contents of its records holdings. Rochester states that it has not found a body of records relating to either wartime or Atomic Energy Project activities connected with human radiation experiments. The university also states that it has searched the potentially relevant files of its president, treasurer, and medical school dean. DOE did obtain one cubic foot of AEP periodic reports dating from about 1948 to about 1968 from the university.

A DOE staff member traveled to Rochester to discuss the university's search and to examine special collections holdings of the Edward G. Miner Library. Two collections of personal papers were examined: the Joe W. Howland Papers and the Louis H. Hempelmann, Jr. Papers. Both individuals participated in the plutonium injection experiments and later joined the Rochester medical school staff. DOE intends to continue efforts to review Rochester's records holdings.

*Human Radiation Experiments: The DOE Roadmap to the Story and the Records***University of Rochester****SERIES TITLE** *Atomic Energy Project Reports***INCLUSIVE DATES** 1948-1954**ARRANGEMENT** Chronological**VOLUME** 1 cubic foot

DESCRIPTION These records consist of periodic technical reports from the Rochester Atomic Energy Project (AEP) to the AEC. Topics cover most aspects of AEP activities, including biomedical studies of x rays, uranium, beryllium, thorium, fluoride, and fallout. Information is also present regarding chemical toxicity, health physics, and educational programs. Some gaps are apparent in the reports. The wartime origins and activities of the project are not covered extensively in this material; the location of reports from this era is unknown. Bibliographic listings and indexes are available.

LOCATION OF University of Rochester**RECORDS** School of Medicine and Dentistry
Rochester, NY 14642**SERIES TITLE** *Louis H. Hempelmann, Jr., Papers***INCLUSIVE DATES** 1948-1973**ARRANGEMENT** Record type and chronological thereunder**VOLUME** 1 cubic foot

DESCRIPTION These records consist of three subgroups: correspondence and research grants of the university medical school Division of Radiation Therapy; correspondence, research grants, and budgets of the Division of Diagnostic Radiology; and annual reports to the dean of the medical school. Hempelmann was an instructor in Radiology at Washington University from 1942 to 1946, and served as Health Division Leader at Los Alamos from 1947 to 1948. He came to the Rochester medical school as a professor of experimental biology in 1950. He later served as Chairman of the Department of Radiology at Rochester. These papers contain no information pertaining to Hempelmann's activities prior to coming to Rochester in 1951, his involvement with the MED or AEC, or his research activities at Rochester. A finding aid is available for this collection.

LOCATION OF University of Rochester**RECORDS** Edward G. Miner Library
School of Medicine and Dentistry
Rochester, NY 14642

Chapter 2. Narratives and Records Series—Institutional Areas: The University of Rochester

SERIES TITLE *Joe W. Howland Papers***INCLUSIVE DATES** 1949–1973**ARRANGEMENT** Record type and chronological thereunder**VOLUME** 10 cubic feet

DESCRIPTION These records consist of four subgroups: the Atomic Energy Project (AEP); AEP Medical Division; Health and Safety; and Howland (personal papers). The materials document early research in radiation toxicity and also illustrate operation of the AEP, which was funded by the U.S. Atomic Energy Commission, at Rochester. Included are Proposals for Research and Development (Form 189s); copies of the AEP Quarterly Review; administrative records; research correspondence and reports; and educational materials. Documentation is also available concerning Howland's activities as a consultant on radiation exposure, occupational safety, and civil defense. Information pertaining to the use of isotopes at Rochester and the university's role in allocating isotopes to regional hospitals is also present. Howland worked at the Rochester School of Medicine and Dentistry from 1938 to 1965, ending as a professor of radiation biology. He was on a leave of absence from 1944 to 1947 when he served in the medical organization of the MED. A finding aid is available for this collection.

LOCATION OF RECORDS University of Rochester
Edward G. Miner Library
School of Medicine and Dentistry
Rochester, NY 14642

Chapter 3. Human Radiation Experiments—University of Rochester

References

Griem M.L. and J.A. Stein. "The Effect of L-triiodothyronine on Radiation Sensitivity." *Semiannual Reports to the U.S. Atomic Energy Commission, Vol. 3, Part 101, 1961 and Parts 11-15, 1959 to 1961*. Chicago: Argonne Cancer Research Hospital, pp. 52-54. The University of Chicago, Office of Legal Counsel, Semiannual Reports of the Argonne Cancer Research Hospital. □

UC-27. Metabolism and Retention Studies Using Selenium-75

THESE STUDIES WERE carried out in the late 1960s at the Argonne Cancer Research Hospital to determine the organ uptake of selenium-75 (Se^{75}). Four subjects were intravenously injected with Se^{75} . The first was a male with a varicose ulcer who was administered 100 microcuries. The second was a male with mild diabetes who was administered 200 microcuries on one occasion and was subsequently administered 220 microcuries. Subjects were followed by whole body counting for up to 30 months. The biological half-time was found to be about 80 days. The results of this study found that after a single injection of Se^{75} , one-half of the Se^{75} was eliminated from the body after 80 days. The Argonne Cancer Research Hospital was operated under contract by the University of Chicago, which was funded by the U.S. Atomic Energy Commission.

References

Lathrop, K.A., P.V. Harper, and F.D. Malkinson. "Human Total-Body Retention and Excretory Routes of Se^{75} from Selenomethionine." *Semiannual Reports to the U.S. Atomic Energy Commission, Vol. 6, Parts 26-33, 1966 to 1970*. Chicago: Argonne Cancer Research Hospital, pp. 49-57. The University of Chicago, Office of Legal Counsel, Semiannual Reports of the Argonne Cancer Research Hospital. □

UC-28. Comparison of Gallium-68, Technetium-99m, and Indium-113m for Diagnosis of Tumors

IN THE LATE 1960s, the Argonne Cancer Research Hospital conducted studies to determine the combination of radionuclide preparation and

imaging system with the best lesion-detection capabilities per unit radiation dose. Preparations of gallium-68 (Ga^{68}), technetium-99m (Tc^{99m}), and indium-113m (In^{113m}) were used to detect lesions in the brain, kidney, liver, and lung. Biological half-times in humans were compared with those in mice by measuring radioactivity in the excreta. The Argonne Cancer Research Hospital was operated under contract by the University of Chicago, which was funded by the U.S. Atomic Energy Commission.

References

Lathrop, K.A., T.D. Cohen, R.N. Beck, and P.V. Harper. "Comparison of Gallium-68, Technetium-99m, and Indium-113m Used with the Gamma Camera and the 3-Inch and 5-Inch Scanners for Visualization of Lesions in the Brain, Kidney, Liver and Lung." *Semiannual Reports to the U.S. Atomic Energy Commission, Vol. 6, Parts 26-33, 1966 to 1970*. Chicago: Argonne Cancer Research Hospital, pp. 1-13. The University of Chicago, Office of Legal Counsel, Semiannual Reports of the Argonne Cancer Research Hospital. □

University of Rochester**UR-1. Polonium-210 Metabolism and Excretion Studies**

Human Radiation Experiments: The DOE Roadmap to the Story and the Records

DURING THE EARLY 1940s, the University of Rochester in New York conducted studies on the retention, excretion, and gastrointestinal tract absorption of polonium-210 (Po^{210}) in humans, using patients at Strong Memorial Hospital in Rochester, NY as subjects. The purpose of the study was to determine occupational exposure limits for use in radiation protection programs. Five patients with advanced lymphoma or leukemia participated. Four were administered an intravenous injection of 8 to 23 microcuries of Po^{210} and one patient was orally administered 18.5 microcuries of Po^{210} in tap water. Urine samples were subsequently collected and analyzed for Po^{210} . All subjects died of preexisting ailments shortly after the administrations. Tissues were obtained at autopsy and examined for Po^{210} concentration. This research was supported by the Manhattan Engineer District. (This experiment was referenced in the Markey report.)

References

Fink, R.M. "Biological Studies with Polonium, Radium, and Plutonium." *National Nuclear Energy Series*. Div. VI, Vol. 3. New York: McGraw-Hill, 1950.

Stannard, J.N. *Radioactivity and Health: A History*. Office of Scientific and Technical Information. 1988, p. 213-214. □

UR-2. Uranium Injections

FROM AUGUST 1946 to January 1947, the University of Rochester conducted toxicity studies on uranium, using hospital patients as subjects. The purpose of the studies was to determine the dose level at which renal injury is first detectable, measure the rate at which uranium is eliminated from the body once it enters the bloodstream, and observe the effect of measures intended to alter the excretion rate. Human subjects included four males and two females, all with good kidney function, ranging in age from 24 to 61 years. All had medical conditions, such as undernutrition, alcoholism, or heart disease. Highly enriched uranium (uranium-234 and uranium-235) was administered intrave-

nously as uranyl nitrate in amounts ranging from 6.4 to 70.9 micrograms per kilogram of body weight. At levels approaching 50 micrograms per kilogram, the preparation was diluted with natural uranyl acetate (U^{238}) to limit the potential radiotoxicity associated with systemic enriched uranium. Five subjects received a single injection and experienced no kidney damage. The sixth subject experienced slight kidney tissue toxicity at the 70.9 microgram/kg level, suggesting that the human tolerance level had been reached. This patient was administered ammonium chloride to induce an acidosis condition (a decrease in alkali relative to acid in bodily fluids), then received a second injection of uranyl nitrate at a dose of 56.6 microgram per kilogram.

These studies showed that the tolerance level for uranium in the human circulation was about 70 micrograms per kilogram of body weight, that uranium excretion occurred mainly through urine, that 70 to 85 percent was eliminated in the first 24 hours, and that acidosis decreased the rate of uranium excretion. This research was supported by the Manhattan Engineer District. (This experiment was referenced in the Markey report.)

References

Bassett, S.H., A. Frankel, N. Cedars, H. Van Alstine, C. Waterhouse, and K. Cusson. *The Excretion of Hexavalent Uranium Following Intravenous Administration. II. Studies on Human Subjects*. Rochester: The University of Rochester, UR-37, June 1948. □

UR-3. Ingestion of Milk Containing Iodine

131

THIS STUDY WAS CONDUCTED in 1963 by a graduate student at the University of Rochester to investigate the human body's metabolism of radioiodine found in dairy products. The research sought to determine if iodine found in milk was transferred to the thyroid in the same quantities as the inorganic iodide commonly used in medical studies. As much as 40 percent of the iodine found in milk was found to be protein bound.

Human Radiation Experiments: The DOE Roadmap to the Story and the Records

DURING THE EARLY 1940s, the University of Rochester in New York conducted studies on the retention, excretion, and gastrointestinal tract absorption of polonium-210 (Po^{210}) in humans, using patients at Strong Memorial Hospital in Rochester, NY as subjects. The purpose of the study was to determine occupational exposure limits for use in radiation protection programs. Five patients with advanced lymphoma or leukemia participated. Four were administered an intravenous injection of 8 to 23 microcuries of Po^{210} and one patient was orally administered 18.5 microcuries of Po^{210} in tap water. Urine samples were subsequently collected and analyzed for Po^{210} . All subjects died of preexisting ailments shortly after the administrations. Tissues were obtained at autopsy and examined for Po^{210} concentration. This research was supported by the Manhattan Engineer District. (This experiment was referenced in the Markey report.)

References

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Stannard, J.N. *Radioactivity and Health: A History*. Office of Scientific and Technical Information. 1988, p. 213-214. □

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References

Bassett, S.H., A. Frankel, N. Cedars, H. Van Alstine, C. Waterhouse, and K. Cusson. *The Excretion of Hexavalent Uranium Following Intravenous Administration. II. Studies on Human Subjects*. Rochester: The University of Rochester, UR-37, June 1948. □

UR-3. Ingestion of Milk Containing Iodine-131

THIS STUDY WAS CONDUCTED in 1963 by a graduate student at the University of Rochester to investigate the human body's metabolism of radioiodine found in dairy products. The research sought to determine if iodine found in milk was transferred to the thyroid in the same quantities as the inorganic iodide commonly used in medical studies. As much as 40 percent of the iodine found in milk was found to be protein bound.

The study focused on the range of uptake percentages in children of various ages. Subjects for the experiment were chosen with an emphasis on the younger age groups, since the majority of known research had been conducted on adults. The subjects ranged in age from 6 years to 50 years; seven were less than 21 years old. The milk used for this study was obtained from Cornell University's Department of Veterinary Medicine, where a cow had been fed iodine-131 (I^{131}) so as to produce 5,000 to 10,000 picocuries per liter in its milk. All subjects were put on an iodine restricted diet prior to the study and then were fed the I^{131} milk for a minimum of 14 days. One of the children in this study subsequently developed thyroid carcinoma. The research was performed under a contract with the U.S. Atomic Energy Commission.

References

Cuddihy, R.G. "Hazard to Man from I^{131} in the Environment." *Health Physics*. Vol. 12, 1966, pp. 1,021–1,025. □

UR-4 The Fate of Radon Ingested by Man

In 1964, the Department of Radiation Biology at the University of Rochester conducted a study on the fate of radon ingested by humans. Two male subjects, one 56 and the other 36, participated. On two occasions, each subject drank approximately 1 microcurie of radon-222 (Rn^{222}) in equilibrium with its decay products in 100 milliliters of water. On three separate days, the ingestions of radon were followed by a normal breakfast; the fourth followed a larger breakfast high in fat. The subject's respired air, blood, and urine were obtained and sampled for Rn^{222} activity. This study provided rates at which the body loses radon and the impact of stomach contents on the rate of loss. The research was supported by the U.S. Atomic Energy Commission. (Previously described in #29 on the original list of 48 experiments released by DOE in June 1994)

References

Hursh, J.B., D. A. Morken, T.P. Davis, and

A. Lovaas. "The Fate of Radon Ingested by Man." *Health Physics*. Vol. 11, 1965, pp. 465–476. □

Other

OT-1 Study of Blood Volumes with Iodine-131 Tagged Plasma Protein

CASE WESTERN RESERVE University conducted this study in 1950. Blood volume determinations were made on 76 ambulatory hospital patients who exhibited normal fluid and protein balance. The subjects were injected with plasma protein tagged with iodine-131 (I^{131}) while they were fasting. They were confined to bed until the experiment was completed. Approximately 40 to 60 microcuries of I^{131} were intravenously injected. Twelve patients who were to receive spinal anesthesia were also given radioactive iodinated protein at various intervals, preceding the administration of the anesthesia. No radioactivity was detected in the spinal fluid of these patients. The studies on the patients confined to bed showed that an average of 8 to 12 percent of the injected radioactive iodine was found in the urine within 24 hours of the injection. This research was partly supported by an Atomic Energy Commission contract.

References

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Storaasli, J.P., H. Krieger, H.L. Friedell, and W.D. Holder. *The Use of Plasma Protein Tagged Iodine-131 in the Study of Blood Volumes*. Cleveland: Western Reserve University, NYO-1608, July 6, 1950. □

OT-2 The Use of Iodine-131-Labeled Human Serum Albumin to Evaluate the Peripheral Circulation