

科学技術社会論学会第19回年次大会「黒い雨訴訟」判決・控訴は何を意味するか1 広島・長崎・ビキニ・グローバルヒバクシャにとっての判決の意義



2020年12月6日

高橋博子

(奈良大学)

2020年7月29日、被爆者健康手帳の
交付を巡って争われている「黒い
雨」訴訟の判決で原告側が全面勝訴。

- 「黒い雨」訴訟は、まさしく広島・長崎の原爆による放射性降下物が争点の訴訟であり、アメリカによる広島・長崎の放射性降下物否定に起因する裁判。

黒い雨訴訟判決の意義

- 宇田雨域・増田雨域・大瀧雨域とも、黒い雨にあった可能性を示す手がかりであり、それをもって遭わなかった証拠にはいけないこと。
 - 内部被曝の可能性を重視していること。
 - 原告の被爆者の証言を真摯に聞いた上で、信ぴょう性があるとしての判決であること。
- →原告の被爆者が、心身ともに様々な状態の中、真摯に自分の身におこったことを証言したからこそその判決

判決要旨

- 増田雨域・・・「黒い雨」の降雨域を推知する際の有力な資料の一つ
- 大瀧雨域・・・相応に斟酌することができるというべき
- 原告の供述・・・「被告ら代理人の反対尋問を経ても、その核心部分を信用できないとする事情は窺われず、法廷で供述していない原告らについても、同旨の陳述書等の内容に不自然不合理な点はないことなどからすれば、原告らは、いずれも「黒い雨」に暴露したと認められる」
- →原告の供述や陳述書を信賴

- 放射性微粒子を含む「黒い雨」が混入した井戸水や、「黒い雨」が付着した食物を摂取するなどの内部被曝を想定できる」とし、「内部被ばくの可能性があるか」という観点を加味して検討する必要がある」と、内部被ばくの影響に配慮。
- 原告側の証言・陳述書の信憑性、増田雨域や大瀧雨域、そして内部被曝の可能性を重視しており、米側が公式見解では否定してきた放射性降下物や内部被曝を認めた判決。

BRIGADIER GENERAL T.F. FARRELL, DEPUTY MILITARY COMMANDER OF THE *MANHATTAN PROJECT*, MADE A STATEMENT ON THE ATOMIC BOMB

- THE *NEW YORK TIMES* ON SEPTEMBER 13, 1945 RAN A STORY HEADLINED “NO RADIOACTIVITY IN HIROSHIMA RUIN.” “REPORTED TONIGHT AFTER A SURVEY OF BLASTED HIROSHIMA THAT THE EXPLOSIVE POWER OF THE SECRET WEAPON WAS GREATER THAN ITS INVENTORS ENVISAGED, BUT THAT HE DENIED CATEGORICALLY THAT IT PRODUCED A DANGEROUS, LINGERING RADIOACTIVITY IN THE RUINS OF THE TOWN OR CAUSED A FORM OF POISON GAS AT THE MOMENT OF EXPLOSION



1945年8月10日付けの新聞(朝日新聞大阪本社版)で 「新型爆弾対策」を公表

壕と防空服装を整備 新型爆弾へ防空総本部の注意」・・・新型爆弾に対して防空総本部では九日対策（その二）として次の如き心得を発表した

- 一、 新型爆弾に対して退避壕は極めて有効であるからこれを信用し出来るだけ頑丈に整備し、利用すること
- 二、 軍服程度の衣類を着用していれば火傷の心配はない。防空頭巾および手袋を着用してをれば手や足を完全に火傷から保護することが出来る
- 三、 前述の退避壕を咄嗟の場合に使用し得ない場合は地面に伏せるか堅牢建造物の陰を利用すること
- 四、 絶対に屋内の防空壕を避けて屋外の防空壕に入ること
- 八日発表した心得のほか以上のことを実施すれば新型爆弾をさほど惧れることはない、なほ爆弾に対する対策は次々に発表する

- 「ピカッ！物陰に：廣島の経験を活かせ」・・・自分の体験ではピカッと光った瞬間机の下だとか、物陰に身をひそめさえすれば火傷しないですませただろうし、壕蓋のある防空壕に入っておれば大丈夫だと思ふ」
- 防空総本部の指示通りに行動すれば「新型爆弾はさほど惧れることはない」とする

日本帝国政府1945年8月8日の「米機の新型爆弾による攻撃に対する抗議文」

- ハーグ陸戦条約にて掲げられている条項を引用しながら、「米国政府は今次対戦の戦乱勃発以来再三にわたり毒ガスないしその他の非人道的戦争方法の使用は文明社会の世論により不法とせられおれり」とし、原爆を不必要な苦しみを与え、生物化学兵器以上に非人道的な兵器として米国に対して抗議。
- ⇔日本の住民に対しては、対外的に行っていた「毒ガス以上の残虐な兵器」とする批判とは、まったく逆の説明。

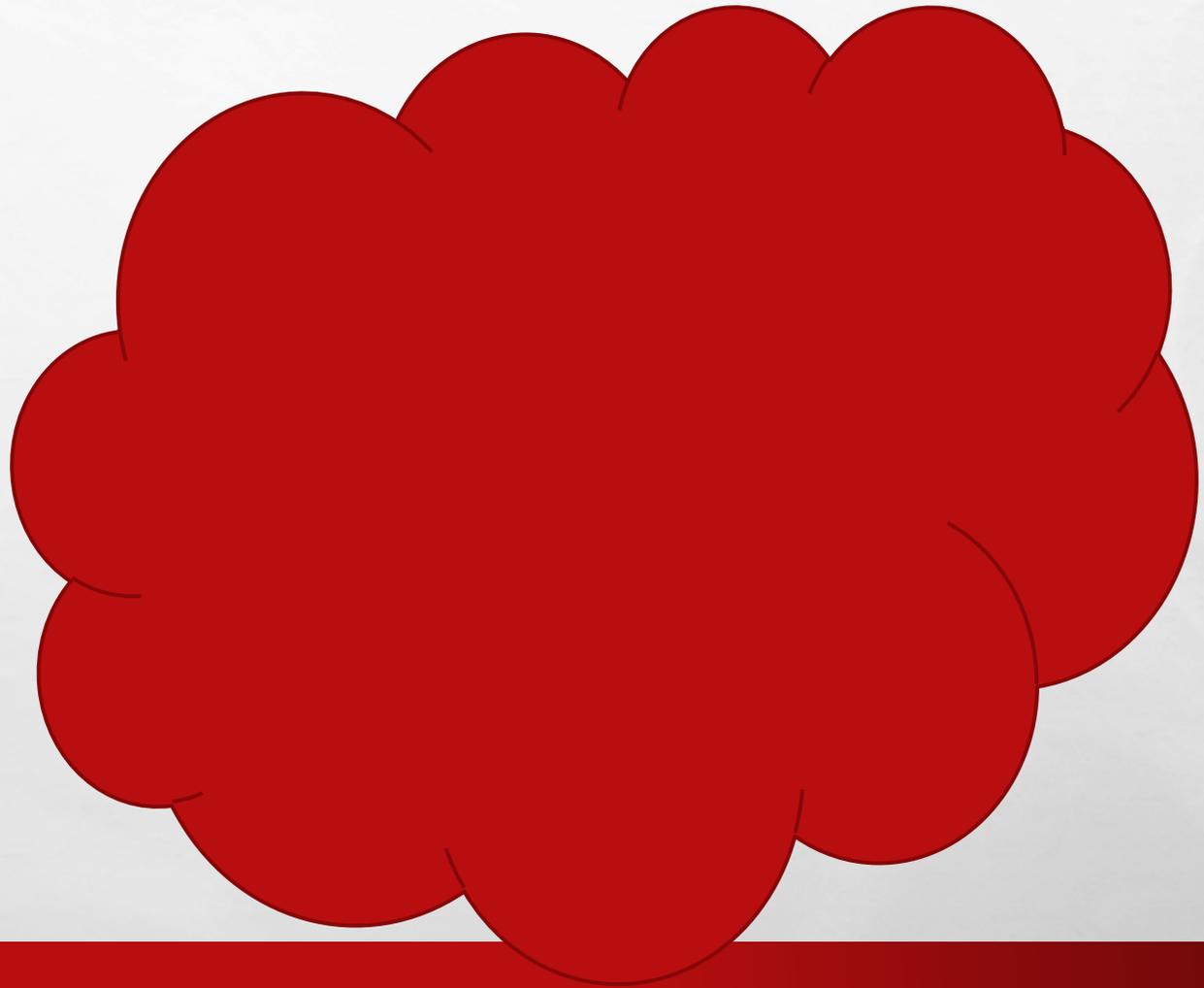
SEPTEMBER 5, 1945, WILFRED BURCHETT, IN
THE *DAILY EXPRESS*, REPORTED FROM
HIROSHIMA:

“PEOPLE ARE STILL DYING, MYSTERIOUSLY
AND HORRIBLY — PEOPLE WHO WERE
UNINJURED IN THE CATAclysm — FROM AN
UNKNOWN SOMETHING WHICH I CAN ONLY
DESCRIBE AS THE ATOMIC PLAGUE.”

BLAST
爆風

HEAT
熱射

RADIATION
放射線



Radiation 放射線

INITIAL Radiation

初期放射線

Residual Radiation

残留放射線

Residual Radiation
残留放射線

Induced Radiation
誘導放射線

Radioactive Fallout
放射性降下物

Radiation Exposure
放射線被曝

External Exposure
外部被曝

Internal Exposure
内部被曝

1948年末、元マンハッタン計画医学部門責任者スタッフオード・ウォレン

「日本の二つの都市で起こったような、上空での原爆の爆発は、爆風によって破壊し、爆風やガンマ線・中性子線の放射によって殺傷する。危険な核分裂物質は亜成層圏にまで上昇し、そこに吹く風によって薄められ消散させられる。都市は危険な物質に汚染されるわけではなくすぐに再居住してもさしつかえない。」

(*MEDICAL RADIOGRAPHY AND PHOTOGRAPHY* EASTMAN KODAK COMPANY ROCHESTER, N.Y., VOL. 24 NO. 2 1948)

米軍特殊兵器計画

(**AFSWP: ARMED FORCES SPECIAL WEAPON PROJECT**)

- 米軍特殊兵器計画初代本部長
- レスリー・グローブズ元マンハッタン計画責任者
- 生物・化学・放射線兵器を検討
- →ユタ州の **DUGWAY** 実験場が使用される。

ABCC : ATOMIC BOMB CASUALTY COMMISSION

原爆傷害調査委員会

- 米科学アカデミーが管轄
- 研究資金は核開発を行う機関で、マンハッタン管区を引き継いで発足した米原子力委員会が提供
- 米国に送付された被爆資料は米軍病理学研究所が保管
- →アメリカの軍事・民間防衛のための研究
- →軍事機密資料として扱われ続ける。

原子兵器の効果



アメリカ合衆國
原子力委員会
訪名
ロスアラモス
科学研究所

武谷三男
中村誠太郎
佐々木宗雄
豊田利幸
小野健一
西宮博通

放射線による皮膚の火傷

653 日本における原子爆弾では放射線の照射による「放射火傷」が皮膚の火傷の形態であった。これは放射線による火傷である。正しく放射線による火傷の 31 月 20 日 10 時 40 分はこの種の火傷によるものであり、その中でも通常の火傷火傷より大分長けている。放射線による火傷は皮膚では 10 センチから 200 センチ、放射線では 11,000 センチまで記録されている。放射線による火傷は皮膚の火傷であるが、このような火傷の程度は深さから放射線の照射量に依存している。

654 放射線による火傷の形態に付いては放射線の照射量に依る火傷で、



654 放射線による火傷の形態に付いては放射線の照射量に依る火傷で、
結果「放射火傷」を誘発し、又放射線による「放射火傷」
を誘発するの充分な原因であった。

- **1950**年になると原爆対策本として米原子力委員会・国防省・ロス・アラモス科学研究所が『原子兵器の効果』を出版した。
- 「このような放射能による危険は特殊な事情の下においてだけ起こり得るということをはじめに強調しなければならない。高空あるいは可成り高い空中で爆発する時にこの危険は本質的には起こらない。「**日本での原子爆発後、核分裂生成物や原子爆弾に用いた材料に由来する放射能による障害または疾病は少しも見られなかった**」とし、残留放射線による危険はないとしている。それに対して「**地中爆発やベース・サージに伴う水中爆発は居住地地域を汚染し得るし、そのような場合には残留放射能による危険は重大になるであろう。放射性物質を放射線戦争の兵器として用いた場合に同様の状態が起こり得るであろう**」。

- 「空中爆発」の場合が極めて広い範囲に分散し、「健康に対する危険という点から見れば、無視することができる」
- 風や雨雲など特殊な気象条件で「ある特定の地域に大量の放射性物質が沈積することはあるかも知れない。しかし、そんなことは何時もあるとは考えられない」
- 広島・長崎の場合は残留放射線はないことが強調され、アメリカの公式見解が踏襲される。黒い雨による被害も具体的には触れず「いつもあるとは限らない」と、否定ではないが、通常はないかのように説明している。
- 「放射線に対する感受性という問題自身が、非常に不明瞭なものであるために、条件が非常にさまざまな場合の許容量については大体の目安としては、上に述べた報告が役に立つかと思う。なかには、他の人よりも犯されたすい人たちも勿論あるが、実用上の目的には統計的平均を考えなくてはならない」と放射線への感受性の高い人々を切り捨てるような説明がなされている。

Planning Guidance for Response to a Nuclear Detonation

Second Edition
June 2010

Developed by the National Security Staff
Interagency Policy Coordination Subcommittee
for Preparedness & Response to
Radiological and Nuclear Threats



with respect to the fallout, type of clothing being worn, weather, environment, and how soon victims can receive medical care.

Thermal radiation emitted by a nuclear detonation... causes burns to eyes, throat, and skin... Thermal energy from the burst is delivered to burn victims... Thermal energy from the burst is delivered to burn victims... Thermal energy from the burst is delivered to burn victims...

The intense flash of light also provides a momentary signal to cover the face... The speed of light, perceived as the flash, travels much faster than the heat... It is anticipated that some injuries... Individuals that perceive an... Immediate protective measures, such as getting away from windows, closing eyes, and lying flat...



Figure 1.8. Flash burn victims from (a) Hiroshima showing pattern burns (i.e., the dark colored material pattern on the victims clothing preferentially absorbed the thermal energy and burned the skin), and (b) Nagasaki showing profile burns (i.e., burns around the light colored clothing that reflected the thermal energy).

Secondary fires are expected to be prevalent in the MID zone. Secondary fires will result in burns irritable with basic medical procedures, but the health threat will be compounded by other injury mechanisms associated with a nuclear explosion.

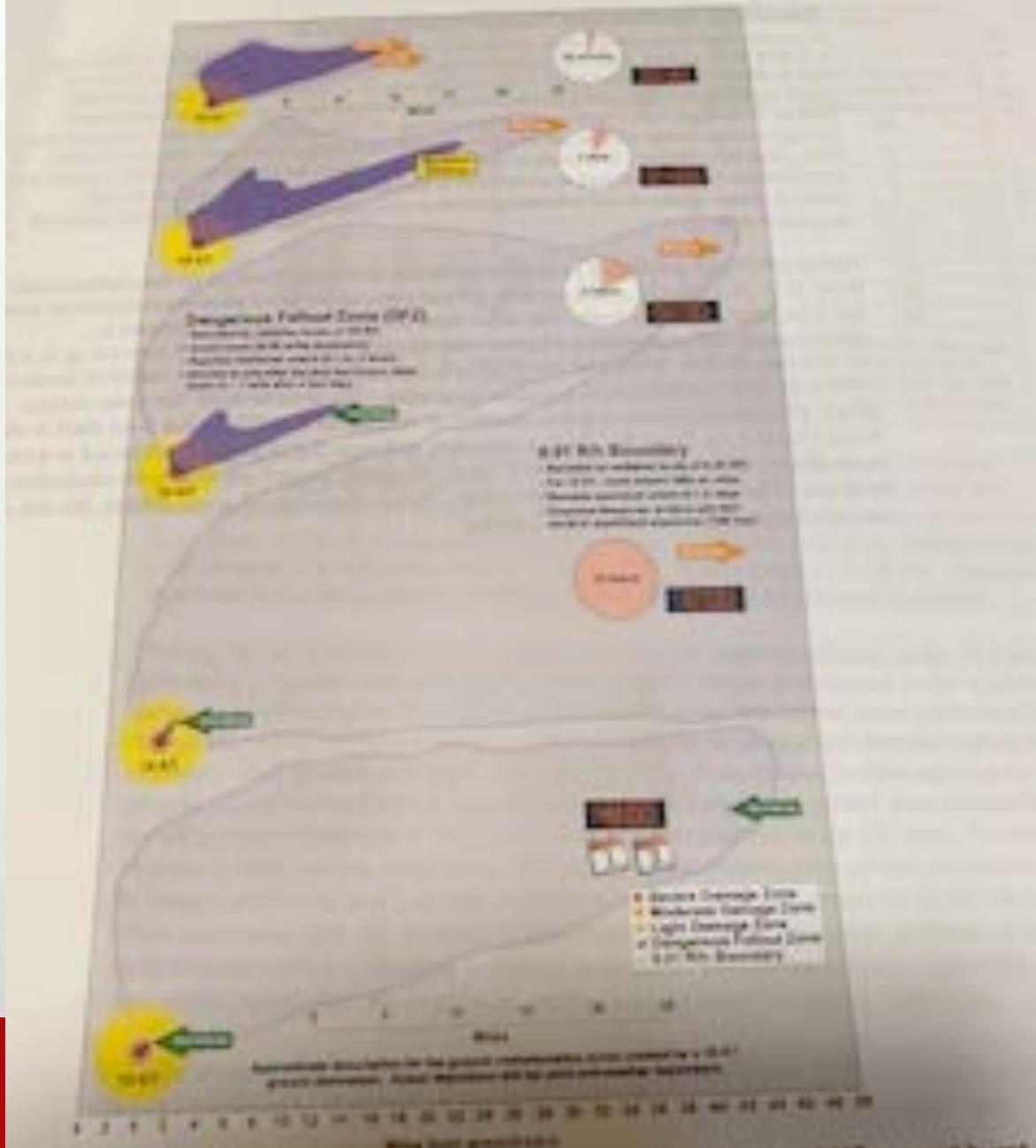


Fig. 3. Time sequenced size of DF zone and 0.01 Rth boundary for the 10 KT ground burst scenario

米統合参謀本部が2019年6月に発表した新方針

(JOINT PUBLICATION 3-72 NUCLEAR OPERATIONS, 11 JUNE 2019)

- 「放射性降下物。核爆発からの兵器の残骸、おもに核分裂の残骸は、放射能が強い。地表(水面)近く、地表(水面)、もしくは地表(水面)下からの放射性物質の残骸、放射能の残骸の雲から広まった土は、放射性物質の残骸によって、誘導放射化され、また結びついて、放射線被害をもたらす。比較的重い放射性微粒子は爆発のすぐ後に爆心地近くの地域に到達する。比較的軽い微粒子は、気候や大気の状態によって、後に、またより遠くの地面に到達する。」
- →空中高く爆発した場合については説明していない(広島・長崎の例)。
- →広島・長崎型の**3**分の1→「小さな核」「使える核」という発想にむすびついているのでは。

~~SECRET~~

REGISTERED
NO. 12703

RADIOACTIVE MATERIAL AS A MILITARY WEAPON

DECLASSIFIED
Authority NND 931013
By MBM/CARR NARA, Date 7/20/94



I. INTRODUCTION

The use of radioactive material as a weapon of war has already been given considerable thought by various members of this project. In this part of the report, an attempt is made to assemble the more important factual information and pertinent suggestions which have bearing on the problem. The appendices give more complete discussions, tables furnished by other members of the committee, and references to some of the previous reports on the subject.

The bases on which radioactive material may be useful for the purpose here considered are:

1. Large doses of penetrating radiation can cause serious body injury and death.
2. The chain reacting pile is a source of very large quantities of radioactive materials which emit high energy beta-rays and gamma-rays, and which have half-lives ranging from seconds to months. The rate at which this material can be expected to be produced (by us or by our enemy if his state of development is comparable to ours) will be sufficient to contaminate large areas to a radiation level that would make it impossible for life to continue for many days in the area until decontamination had been

放射線兵器開発

- マンハッタン工兵管区 放射性物質毒性小委員会を設置
- 戦後米軍特殊兵器計画 放射線兵器・生物化学兵器の開発に携わる。
- 米原子力委員会とも共同で放射線兵器開発

- → 栗原岳史「第二次世界大戦後の米国における放射能戦の研究開発体制の成立過程：**1945-1948**」(『技術文化論叢』第12号(2009年)31-55頁)
- LISA MARTINO-TAYLOR, *BEHIND THE FOG: HOW THE U. S. COLD WAR RADIOLOGICAL WEAPONS PROGRAM EXPOSED INNOCENT AMERICANS*, (ROUTLEDGE : NEW YORK, 2018)



PROGRAM 6 - TESTS OF SERVICE EQUIPMENT AND OPERATION (Lt. Col. ...)

6.1
ADDITION

PROGRAM 4 - BIG MEDICAL STUDIES (CDR E. P. CRONKITE)

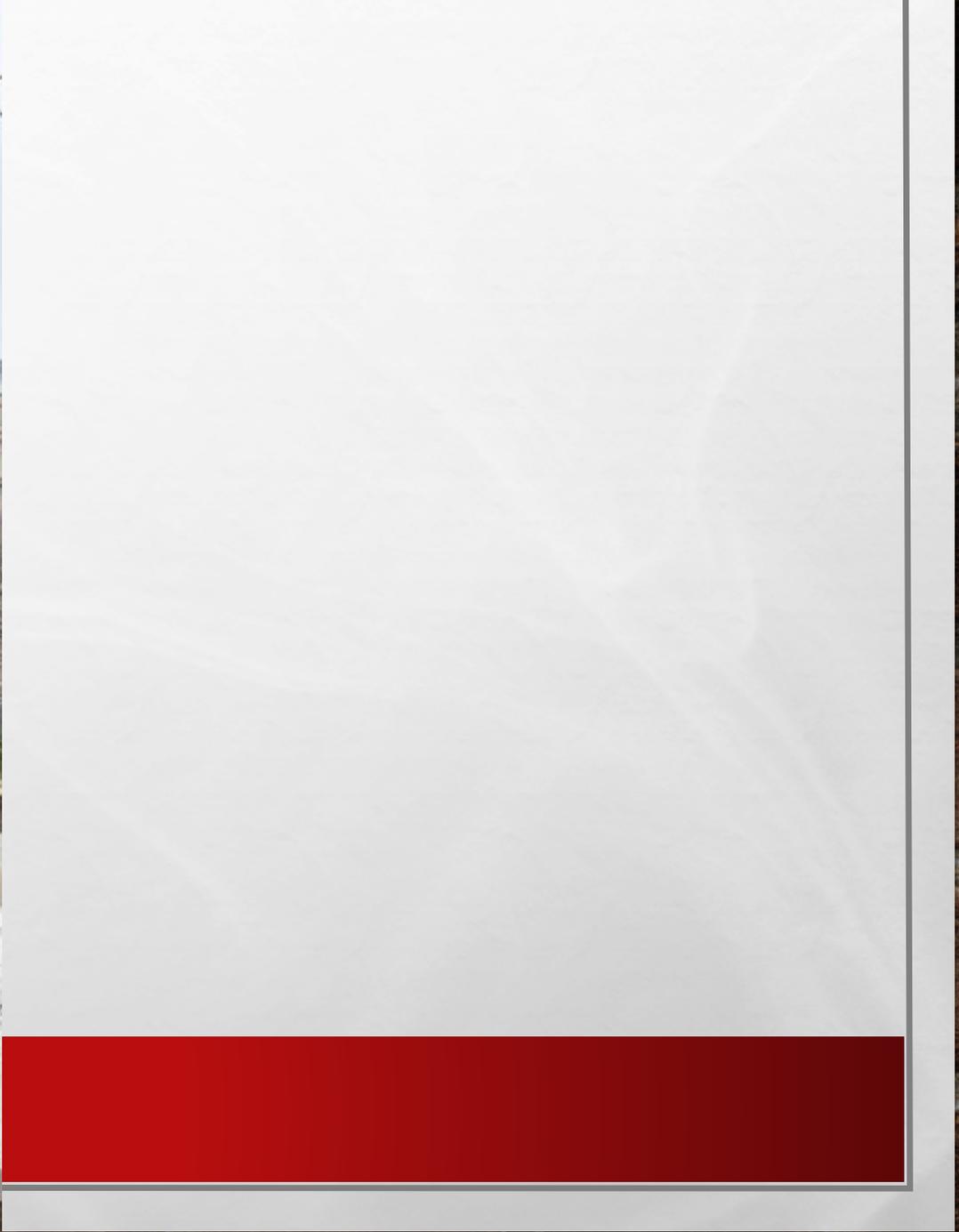
ATTACHED AS separate entry

<u>PROJECT NO.</u>	<u>TITLE</u>	<u>ORGANIZATION</u>	<u>PROJECT OFFICER</u>
1.1	Study of Response of Human Beings Exposed to Significant Beta and Gamma Radiation due to Fall-Out from High Yield Weapons.	AFSWP and AEC (DBM)	CDR E. P. CRONKITE USN
6.0	Effects on Ionosphere	ESL	Capt. A. Giroux
7.1	PROGRAM 7 - LONG RANGE DETECTION (Col. P.R. Wignall)	AFOAT-1	J.A. Crocker
7.2	Electromagnetic Radiation Calibration	AFOAT-1	G.B. Olmstead
7.4	Detection of Airborne Low Frequency Sound from Atomic Explosions	AFOAT-1	W. Singlevich
9.1	Calibration Analysis of A-Bomb Debris	AFOAT-1	Lt. Col. J.G. James
	PROGRAM 9 - SUPPORTING MEASUREMENTS (Lt. Col. J.G. James)	AFSWP	Lt. Col. J.G. James
	Cloud Photography		
	TASK UNIT 1 - LASL PROGRAMS (L. Assmott)		
	PROGRAM 11 - RADIOCHEMISTRY (R. Spence)		
11.1	Analysis for Fission and Fusion Energy Yields (Overseas phase will be handled by 11.2)	J-11. LASL	

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「残留放射能：米軍、極秘調査 広島・長崎で1950年危険性否定後も」広島、長崎への原爆投下から4年半後の1950年3月、米軍が両被爆地の「黒い雨」降雨地域で残留放射能を極秘に調査していたことが分かった。毎日新聞が内部資料を入手した。担当した科学者は土壌調査の結果などから「長期にわたって放射能が残留することを証明できた」と報告していた。米国は戦後早い時期に残留放射能の危険性を否定したが、冷戦下で核戦略を進めていた米軍は強い関心を持ち、調査を継続していたことが明らかになった。【吉村周平】」
(『毎日新聞』2015年8月5日)



サウジアラビア大使館
Embassy of Saudi Arabia

G ストリート・ノースウェスト

ホワイトハウス
The White House

ジョン・F・ケネディ
センター
John F. Kennedy Center
for the Performing Arts

19th ストリート・ノースウェスト

米州機構
Organization of
American States

楕円
The Ellipse

セオドア・ルーズベルト橋
Theodore
Roosevelt Bridge

ベトナム戦争
戦没者慰霊碑
Vietnam Veterans
Memorial

憲法庭園
Constitution
Gardens

ワシントン記念塔
Washington Monument

リトル島
Little Island

ポトマック川

リンカーン記念堂
Lincoln Memorial



DEPARTMENT OF
MEDICINE AND SURGERY

VETERANS ADMINISTRATION

WASHINGTON 25, D. C.

March 10, 1950

YOUR FILE REFERENCE:

IN REPLY REFER TO:

Dr. Shields Warren
Atomic Energy Commission
Division of Biology and Medicine
Washington, D. C.

Dear Shields:

Phil Abelson has just spoken to me of a matter which may bear looking into. Dr. Michina, Vice President of the Japanese Academy of Science, is making a visit to this country. You are probably familiar with this and perhaps even more than I am.

The story he told Phil was that he went into the area of the epicenter on August 8th and spent from 5 to 6 hours there. The following December he had what might have been rather mild symptoms of radiation injury in the form of petechiae. He had no epilation at any time, and it was not clear to me what other possible evidence he might have had of radiation injury which was showing up later. I explained to Phil that purpura simplex was a thing we saw not infrequently especially when the respiratory infections are around in the winter, and that I thought it might be difficult to tie petechiae up with any exposure to residual radiation on August 6th.

It has occurred to me that as a part of our work in Japan, it might be a good idea to canvass some of the scientists, rescue workers, and so forth, who may have been in the area of the epicenter during the first 2 or 3 days. It may be that this has been planned by our group in Japan. If so, it has escaped my memory.

Phil recalls having read of a medical student in Japan who had a similar exposure and who also had some petechiae later. I think it is likely that Phil is somewhat more aware of the significance of petechiae because of the work his wife has been doing in hematology and her earlier associations

B4M-313A
Copy to Col. Teasmer
sent 28 Mar '50
29

Atomic Energy Commission
General

1950-1954

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1950年3月10日

海軍医療看護局のGEORGE M. LYON, M. D. →

米原子力委員会生物医学部長 SHIELDS WARREN宛書簡。

- 日本学術会議副会長の仁科が**PHIL**博士に語った話。
- 「**8月8日**に爆心地域にゆき、5・6時間滞在した。次の**12月**に点状出血という形で比較的軽い放射線障害の徴候がでた」
- **PHIL**博士によると他の日本人医学生にも点状出血の症状があったとのこと。
- **LYON**医師は**8月6日**の残留放射線への被曝に結びつけるのは難しいとはしているが、**PHIL**博士が点状出血の症状を重視していることをシールズ・ウォーレンに報告。

仁科芳雄博士遺稿集『原子力と私』 (学風書院、1950年) 23頁

なお原子爆弾による放射能は今日でも残って居る。例えば廣島の爆心附近や西方郊外の高須地方(爆心より約3.5軒)又長崎では爆心及び東方の西山地方(爆心より約2軒)に高放射能のある土があり、又その邊一體放射線の量が増して居る。これは前にも述べた通り中性子の作用による放射能と、分裂した原子核破片の放射性によるものである。殊に幕臣より離れた虚のものは後者によるものであることがその後明らかになった。今日尚残存するものは主としてこの分裂によるものと考えてよい。これ程の放射線のため廣島や長崎は人が住めなくなったといわれたが、これは誤りで、爆発直後は或いはその恐れがあったかもしれないが、放射能は次第に減退するから10日も経てば、何等人體に悪影響はない。只長崎の西山附近には分裂破片が相当量降って来て、放射能が強い所がある。然し今日迄別段病人も出て居ないところから見ると、大體無害であると見てよい。然しこの付近の人の白血球は著しい増加を示している。これは放射線の影響である」

仁科芳雄

(**1990年12月6日—1951年1月15日**)

- 「病人も出て居ない」と認識しているから大体無害とする。
- ところがこの附近の人々の白血球が著しい増加を示すとし、放射線の影響としている。
- →病人が出ていたことを知っていれば、認識は違っていたのではないだろうか。
- また内部被曝の影響を意識していれば違っていたのではないか。

29 March 1950

Philip S. Owen
Herman S. Wigodsky
Committee on Atomic Casualties
Division of Medical Sciences
National Research Council
1 Constitution Avenue
Washington 25, D. C.

Phil and Wig:

This is a letter devoted to only one portion of a multitude of things which we faced us on our return. I had hoped that you would get a lot of the incidental information from the routine flow of materials, which of course I will supplement.

As I indicated in a somewhat vague fashion over the telephone, the two gentlemen visiting us from Tracerlab, Mr. Menker and Mr. Leventhal, conducted a rough survey of Hiroshima for residual radioactivity. There are a number of interesting features to this in the background which I hope one or the other of you will be able to tell you personally. By rough survey, I am referring to quick checks which they have made with a fairly sensitive Gieger Counter of the survey type and by the use of ordinary film. They have had a tendency to rely more particularly on the results from film in the ranges which might exist at the present time, with exposure times of the order of several days to several weeks. This accounts, of course, for the delay following my mention of the subject. The significant point, however, is that they obtained a number of samples throughout Nagasaki and Hiroshima, paying some attention to possible sources of concentration such as rain gutters, silt deposits, and areas indicated by the meteorologic data which they were able to gather. The latter appears to be the main element in locating fission products, and they were able to determine a considerable uniformity, reports of the extent and location of rainfall in the day or two following the bombing. The specimens which they gathered—portions of which they have left with us and portions of which they have carried with them on their return to the States—have all turned out to be positive with the above-mentioned film test, which was simply a question of prolonged contact between the samples and the film. We put one of our people (Nishi) on the same sort of rough survey during the last few days that these Tracerlab gentlemen were with us for purposes of acquiring the technique and extending the survey if necessary. The results of the samples collected by us have not been read.

You will recall that my one reservation at the Committee meeting was based on the unsatisfactory demonstration that no significant amounts of radioactivity were present, and it was my general impression that this fact was not fully discussed.

serious side effects. I feel that this need for reconsideration has resulted from data which we should have had available at the time of the recent Committee meeting, but I do not believe it is too late to arrive at the proper solution. To boil this down as much as possible, I feel that these findings call for rather prompt action and that it represents one of the critical points in the entire program.

While there may have been some difficulty in determining the point to which budgetary consideration should limit the design of this program previously, I have no doubt whatever that the present situation is one which bears far more weight in determining the plan of operation. Taylor and I do not think that the present course is tenable and are very much concerned with a proper solution.

I am making a short visit to Nagasaki, leaving Hiroshima 29 March and expecting to return Monday, 3 April, at which time I will telephone again.

Grant and I are again experiencing that feeling of restriction imposed by the 7,000 miles between us and miss the opportunity to sit down and talk things over. Best wishes.

Sincerely,

Carl F. Tessmer
Lt. Col., M. C.
Director

CFT:EEC

P.S. I hear Dr. Kobayashi of NIH leaves Japan between 1 and 15 April for a visit to the U. S. for approximately three months. He is very interested in visiting NRC and will probably materialize at some time during that period.

29 March 1950

Dr. Philip S. Owen
Dr. Herman S. Wigodsky
Committee on Atomic Casualties
Division of Medical Sciences
National Research Council
2101 Constitution Avenue
Washington 25, D. C.

Dear Phil and Wig:

This is a letter devoted to only one portion of a multitude of things which have faced us on our return. I had hoped that you would get a lot of the incidental information from the routine flow of materials, which of course I will supplement.

As I indicated in a somewhat vague fashion over the telephone, the two gentlemen visiting us from Tracerlab, Mr. Menker and Mr. Leventhal, conducted a rough survey of Hiroshima for residual radioactivity. There are a number of interesting features to this in the background which I hope one or the other of them will be able to tell you personally. By rough survey, I am referring to the quick checks which they have made with a fairly sensitive Gieger Counter of

米科学アカデミー科学者からカール・テスマーABCC所長宛書簡(1950年3月29日)

私が電話で漠然とした形で話したように、広島の残留放射線について大まかな調査を行った**Traserlab(測定研究所)**の**2**人の紳士、**Menker**氏と**Leventhal**氏が訪ねてきました。(中略)しかしながら重要な点は、彼らの集められる、雨樋(あまどい)や泥の堆積、その他気象学的データで示された地域で、広島や長崎中でえ彼らはサンプルを得てきたことです。後者(気象学的データで示された地域で得られたサンプル)は核分裂物質の場所を特定するための主要な要素となり、原爆の当日と翌日の降雨の範囲についての報告を、相当の均一性を持って決めることができるであろう。一部が私たちの元に残され、一部は彼らが国持って帰った、収集された試料は、いずれも先述のフィルムテストでは陽性でした。

(解説:**Traserlab(測定研究所)**・・・米軍特殊兵器計画に属し、**Dugway**実験場での放射線兵器実験で測定などに携わる。核実験での放射性降下物を測定するプロジェクト・サンシャインにも携わる。)

AEC
Director's Corresp
1950
Jan-Apr

COMMITTEE ON ATOMIC CASUALTIES

28 April 1950

Lieutenant Colonel Carl Tesmer
Atomic Bomb Casualty Commission
APO 182, c/o Postmaster
San Francisco, California

Dear Carl:

Bob Wilson called today to report that he had been over to see General Cooney and that he had arranged for Cooney to send him directly documents which he requires in order to make his analysis and that Cooney was making arrangements for him to go to Los Alamos this summer. Wilson seemed quite pleased with the results of his visit. Wilson had called also Dr. Urey in the Air Forces, the man who was responsible for sending the Tracerlab people to Japan. He did not get much information out of Urey and he was not very excited by what he did get. I had a long conversation with Wilson and told him of the information we had obtained previously. Incidentally, the two Tracerlab people whom I saw last week were not the ones who had been in Japan. They really knew very little about what had been found and could only tell us that the material was being worked up in Boston and that information would not be available until one to four months from now. All we have obtained by way of information has been the bits and pieces which you have forwarded on to us from the exchange of correspondence with the Tracerlab people. I will attempt to get some sort of consistent story from the Air Forces or from the Tracerlab people themselves. We have agreed to send Wilson all of the material we can lay our hands on. Urey agreed to send him whatever he could obtain and I will take it upon myself to needle Urey to see that he does so.

In the meantime, there appear to be some things we should do for ourselves. First is the matter of determining whether or not any of this material is available for inhalation or ingestion. It seems to us that the inhalation problem could be answered by utilizing blowers to suck air through filter paper and then to determine whether or not radio-active materials appear on the filter paper. Dr. Tuttle, in the Division of Biology and Medicine of the AEC, is scouting through their plants to try and locate from one to four blowers which we can send you for your use. I will keep you informed as to his progress. At the same time, I asked him to attempt to locate for us several Geiger counters which we could

Colonel Tesmer

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28 April 1950

send to you. If he is not successful in finding these, Wilson believes, and I certainly agree with him, that it would be desirable for us to purchase one or two for our own use. Wilson suggests that the smartest thing to do would be to obtain the counters and then to employ several capable Japanese physicists to work with you on the survey. I informed him of our previous discussions with AEC regarding this and he said not to be concerned about it. If AEC proves to be sticky, he believes he can work out the matter with Smyth who is a good friend of his. Also he advises simply going ahead and not asking any questions. This seems to be a fairly sound procedure.

The second question is whether or not any of this material has actually gotten into people in sufficient quantities to affect them. It occurs to me that what is required is to make, or attempt to make, radiographs of various and sundry tissues taken from individuals at autopsy. I am curious as to whether or not you have instituted such a program. Is it possible to obtain autopsy materials from individuals who have lived in Hiroshima since the bombing but who were not exposed to the bombing. Do you already have such a program underway?

What about the matter of trapping some rats, mice or other small animals and attempting to determine whether or not their tissues will produce radiographs. If this material is readily available in the soil, one might suspect that rats, particularly, may have inhaled sufficient of this material to give some effect. You will recall that rats have an unusually high respiratory rate and since they root around on the ground, they may be excellent biologic filters for our purposes.

Neel was in yesterday and he says that in 1947 he collected a number of frogs from an area near the hypocenter and from an area three miles up the valley in the hopes that they may have accumulated some materials. These frogs were turned over to Shields but no one has ever heard of them since. We will attempt to dig out from Shields what has happened to them. Do you think that it might be worthwhile again investigating the matter of frogs or toads living in the areas in which radioactivity may be presumed to exist.

The information which we have obtained from Urey, which has been scanty, has not been sufficient to be any cause for alarm so far as Wilson is concerned. Of course he is not a very good judge of biologic activity. He is anxious to obtain whatever information we can before stirring up a lot of excitement over the problem. Unfortunately in the letters which you sent us which indicated that soil samples gave from five to twenty-five counts per minute above background, there was no indication as to what the background counts were. These figures by themselves, apparently, are not exciting.

We would appreciate knowing whether or not you are carrying on the program of investigations started by the Tracerlab people and if so, what you are doing and what you are finding. Unfortunately, we are in this office sort of operating in the dark.

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Colonel Tesmer

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Neel did not have a great deal to say yesterday. He is trying to arrange his affairs so that he can go to Japan along about the middle of August. He feels that this is a particularly strategic time to do some work in Japan but, at the same time, he would like to avoid the opening ceremonies of the laboratories, etc. I imagine that you will hear from him further in regard to this. Neel also raised the question as to whether it was desirable to store duplicate records in Washington, particularly the records of the genetic aspects of the program. As you may have heard, there has been some talk in this country about the possibility of Washington and its stored records being destroyed in the event of another war. Essentially, this seems to me to be a question to be answered by the Committee. However, I suppose it is a proper one to pose. Personally, I am of the opinion that if Washington is attacked and its stored records destroyed, there probably will not be anyone around who would be interested in the genetic records of the AEC anyway. In addition, I am rather firmly of the opinion that it is desirable to keep all of this material together insofar as possible. What do you think of this problem? What do you think of the possibility of providing two duplicate sets of the genetics questionnaire IBM cards, one to be stored here in the AFIP and one to be stored in Michigan, for example.

We have had a nibble today from another radiologist and we will follow it up as rapidly as possible.

We are trying to arrange to send Miss Boyd, the serologist we have hired, to Mount Sinai to take the course on the use and maintenance of the electrophoresis apparatus.

The AEC auditors are here working on the accounts and we learned only this morning that there is a more than reasonable possibility that they will send some auditors to Japan to do an audit in the field. This is nothing to get excited about at the moment but I believe you should bear it in mind. I hope that by the time you receive this we will have cabled you regarding the funds for the rehabilitation of the buildings in Nagasaki. We are working on it but there are the usual difficulties.

I guess this completes the current highspots.

With warmest personal regards to yourself, Grant, Milt and the others, I remain

Sincerely,

Herman S. Wigodsky, M.D.
Professional Associate

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米科学アカデミー科学者→テスマー宛書簡 1950年4月28日

- ・すでにA B C Cが、原爆にはあっていないが原爆投下以降広島に住んだ人の解剖組織を得ることができるのか、そのような計画はないのかと質問。
- ・ラジオオートグラフをその組織が出すかどうか試すために、ラットやネズミや他の小動物を収集することを提案。土に残っていれば影響しているだろう。「ラットは地面を駆け巡っているので、彼らは我々の目的のための素晴らしい生物学的フィルターになるでしょう」
- ・昨日遺伝学者のニール博士がいて、物質が蓄積されていることを期待して、1947年に爆心地近くの地域と3マイル（約5キロ）離れた谷の地域で蛙を何匹か収集した、シールズ・ウォレン（米原子力委員会生物医学部長）にそれらを渡したがその結果はわからない、と語った。
→残留放射線と内部被曝を意識した調査を行っていた。

1949年1月22日 日本学術会議第1回総会 日本学術会議の発足にあたって 科学者としての決意表明(声明)

- 「われわれは、ここに人文科学及び自然科学のあらゆる分野にわたる全国の科学者のうちから選ばれた会員をもって組織する日本学術会議の成立を公表することができるのをよるこぶ。そしてこの機会に、われわれは、これまでわが国の科学者がとりきたった態度について強く反省し、今後は、科学が文化国家内し平和国家の基礎であるという確信の下に、わが国の平和的復興と人類の福祉増進のために貢献せんことを誓うものである。そもそも本会議は、わが国の科学者の内外に対する代表機関として、科学の向上発達を図り、行政、産業及び国民生活に科学を反映浸透させることを目的とするものであって、学問の全面にわたりその担う責務は、まことに重大である。されば、われわれは、**日本国憲法の保障する思想と良心の自由、学問の自由及び言論の自由を確保するとともに、科学者の総意の下に、人類の平和のためあまねく世界の学界と提携して学術の進歩の寄与するよう万全の努力を傾注すべきことを期する。**
- **ここに本会議の発足にあたってわれわれの決意を表明する次第である。」**
- →日本学術会議1949年設立の際、仁科芳雄氏が尽力。調査を通じてだけでなく、身をもって原爆の恐ろしさを感じていたのでは。

日本政府

「科学的知見に基づかない」として控訴
そもそも包括的・継続的・俯瞰的な被災状況の調査をしてきた
のか？→していない。宇田雨域を含めて再検証するどころか、
線引きの道具にしている。残留放射線・内部被曝を否定するア
メリカの公式見解に追随。

* 直ちにこれまでの在り方そのものを反省し、被災者への補
償・賠償・治療・実態解明調査を行うべき。

その一方で、放射線兵器の開発研究や核戦争のための研究など、
米軍に調査をさせたまま。

* 米側に関連資料の開示請求を政府ぐるみでする必要。

広島・長崎の原爆をはじめとして、残留放射線・放射性降下物・内部被曝は否定、軽視されてきた。その上で「国際的・科学的」知見は、原発被災者・ウラン採掘被災者・核実験被災者を含む世界のヒバクシャの被災状況を隠すことにつながってきた。

今回の判決では残留放射線・放射性降下物・内部被曝を認める。

→グローバルヒバクシャの解明・救済につながる

米上下両院合同原子力委員会の民間防衛グループの防護セミナー 1950年5月11日

- 1000～1500**MSV**
- →何人かの人は吐き気をもよおす
- 2000**MSV**
- →被ばくした者の50パーセントはおそらく病気になるであろう
- 4500**MSV**
- →被ばくした者のうち50パーセントは医療が施されなかった場合死亡
- 6000～8000**MSV**
- →被ばくした者の100パーセントが死亡することが予想される
- 何人かは治療なしでも生き残る可能性がある。

原子兵器の医学的側面合同委員会 1951年1月25日—26日

- ジャームズ・P・クーニー大將は委員会会議に出席できなかったが、次のものを会議議事録に入れるべきだと指摘している:
- 第**6**回委員会会議(1950年10月31日—11月1日)直後に開催された米原子力委員会生物医学部諮問委員会に、**3**軍代表が出席.

- "私に'X'千人の、25から150レム[2500-15000**MSVI**もしくはそれ以上の、さまざまな量の電離放射線の被験者となった兵士が、私に'X'千人いるとする。何人を戦闘に動員できるのか？どのくらい病気になるのか？どのくらいの代替要員を要請し、いつ彼らにそれを頼むのか？"

- 「現在に至るまで、軍部は上記のことに対する答えを述べてきたが、権威ある医学グループによる公的な裏付けはない。多くのものはこれらの質問にたいする人間についての十分なデータがあると感じている。その他のものは、我々は持っておらず、電離放射線の影響を詳細に説明するため、軍事ボランティアに人体実験を行うべきであると感じている。」

- 「諮問委員会が人体実験の問題について長いこと議論してきており、十分な成果を得るには何千人もの人々を電離放射線に曝さなければいけないので、人体実験といのは現時点での答えにはならないということはこのグループのコンセンサスであった。
- (米原子力員会生物医学部長の)シールズ・ウォレンは「すでに十分なデータがある」と話した。」