

GENERAL SCIENCE

Oppenheimer's "Security"

Atomic Energy Commission is investigating charges that Dr. J. Robert Oppenheimer, "father" of the atomic bomb, is a security risk. Charges and reply quoted.

► J. ROBERT OPPENHEIMER, the world-famed physicist who directed the building of the first U.S. atomic bomb, has been suspended as a consultant to the Atomic Energy Commission on the grounds he is a security risk.

Oppenheimer revealed the charges and his categorical denial of them on April 13, reportedly causing concern in the administration that he thus got a publicity jump.

Most of the allegations made in the AEC's letter of Dec. 23, 1953, ordering the suspension, were old ones that had been previously sifted by government authorities. As far as is known, the only new item concerns Oppenheimer's reported opposition to the hydrogen bomb project, both before and after President Truman's order to go ahead on it in January, 1950.

On the same day Oppenheimer had made public the fact that he was undergoing security clearance procedures, the AEC announced that President Eisenhower late last fall had ordered a "blank wall be placed between Dr. Oppenheimer and any secret data." This action, the commission said, was taken by the President after consultation with its chairman, the Secretary of Defense and the director of the Office of Defense Mobilization. Until the suspension of his "Q" clearance, Oppenheimer served on the Science Advisory Committee of ODM.

The new investigation of Oppenheimer was initiated on July 7, 1953, when Chairman Strauss requested the removal of classified documents from the physicist's custody. This followed by just a month the renewal of his contract as a consultant to the commission, and occurred four days after Strauss took over as AEC chairman.

Subsequently, Oppenheimer's file was studied by the commission and by the Department of Justice because it contained "substantial derogatory information" under the terms of President Eisenhower's Executive Order 10450.

Oppenheimer requested a hearing, to which he is entitled by law, on March 4 of this year. A special personnel security board was holding hearings on the case on April 13. Its chairman is Gordon Gray, formerly Secretary of the Army and now president of the University of North Carolina.

Other members are Thomas A. Morgan, former president of the Sperry Corporation, and Dr. Ward V. Evans, Loyola University chemistry professor.

Concerning Oppenheimer's opposition to development of the hydrogen bomb, the AEC said:

"It was reported that in 1945 you expressed the view that 'there is a reasonable

possibility that it (the hydrogen bomb) can be made,' but that the feasibility of the hydrogen bomb did not appear, on theoretical grounds, as certain as the fission bomb appeared certain, on theoretical grounds, when the Los Alamos Laboratory was started; and that in the autumn of 1949 the General Advisory Committee expressed the view that 'an imaginative and concerted attack on the problem has a better than even chance of producing the weapon within five years.'

"It was further reported that in the autumn of 1949, and subsequently, you strongly opposed the development of the hydrogen bomb: (1) on moral grounds, (2) by claiming that it was not feasible, (3) by claiming that there were insufficient facilities and scientific personnel to carry on the development, and (4) that it was not politically desirable.

"It was further reported that even after it was determined, as a matter of national policy, to proceed with development of a hydrogen bomb, you continued to oppose the project and declined to cooperate fully in the project. It was further reported that you departed from your proper role as an adviser to the commission by causing the distribution, separately and in private, to top personnel at Los Alamos of the majority and minority reports of the General Advisory Committee on development of the hydrogen bomb for the purpose of trying to turn such top personnel against the development of the hydrogen bomb.

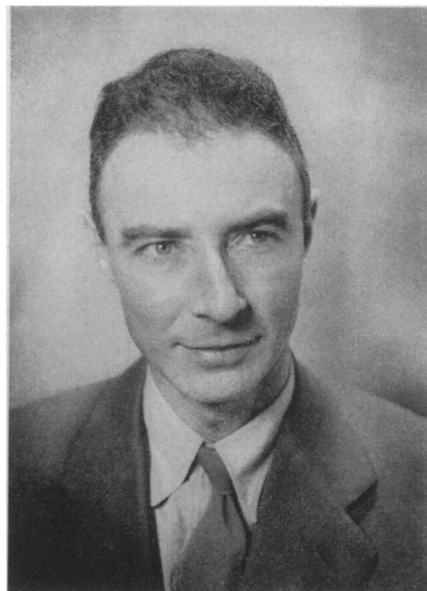
Allege H-Bomb Opposition

"It was further reported that you were instrumental in persuading other outstanding scientists not to work on the hydrogen bomb project and that the opposition to the hydrogen bomb, of which you are the most experienced, most powerful and most effective member, has definitely slowed down its development.

"In view of your access to highly sensitive classified information, and in view of these allegations which, until disproved, raise questions as to your veracity, conduct and even your loyalty, the commission has no other recourse, in the discharge of its obligations to protect the common defense and security, but to suspend your clearance until the matter has been resolved.

"Accordingly, your employment on Atomic Energy Commission work and your eligibility for access to Restricted Data are hereby suspended, effective immediately, pending final determination of this matter."

In replying to these charges, Oppenheimer said in part:



DR. J. ROBERT OPPENHEIMER—
The man who masterminded the U. S. atomic bomb program, Dr. Oppenheimer has been charged with being a security risk.

"The items of so-called 'derogatory information' set forth in your letter cannot be fairly understood except in the context of my life and my work. This answer is in the form of a summary account of relevant aspects of my life in more or less chronological order, in the course of which I shall comment on the specific items in your letter. Through this answer and through the hearings before the Personnel Security Board, which I hereby request, I hope to provide a fair basis upon which the questions posed by your letter may be resolved."

After relating the facts concerning his education and pointing out that, prior to 1936, he had no interest in economics and politics, Oppenheimer states that the persecution of Jews in Germany, where he had relatives, and the effect of the depression on his students, who often could get no jobs, served to give him an understanding of "how deeply political and economic events could affect men's lives. I began to feel the need to participate more fully in the life of the community," he says. "But I had no framework of political conviction or experience to give me perspective in these matters."

He then elaborates upon his experiences with "left-wing" organizations, associations that are long known and that previously have been thoroughly probed.

In his reply, Oppenheimer proceeds to outline his wartime and postwar experiences, absolutely denying some of the charges, explaining others in the context of their occurrence at the time.

Concerning the hydrogen bomb program, or the Super as he calls it, he states:

"The Super itself had a long history of consideration, beginning, as I have said,

with our initial studies in 1942 before Los Alamos was established. It continued to be the subject of study and research at Los Alamos throughout the war. . . .

"In that period the General Advisory Committee pointed out the still extremely unclear status of the problem from a technical standpoint, and urged encouragement of Los Alamos' efforts, which were then directed toward modest exploration of the Super and of thermonuclear systems. No serious controversy arose about the Super until the Soviet explosion of an atomic bomb in the autumn of 1949.

"Shortly after that event, in October, 1949, the Atomic Energy Commission called a special session of the General Advisory Committee and asked us to consider and advise on two related questions:

"First, whether in view of the Soviet success the commission's program was adequate, and, if not, in what way it should be altered or increased; second, whether a 'crash' program for the development of the Super should be a part of any new program.

"The committee considered both questions, consulted various officials from the civil and military branches of the Executive Departments who would have been concerned, and reached conclusions which were communicated in a report to the Atomic Energy Commission in October, 1949.

"This report, in response to the first question that had been put to us, recommended a great number of measures that the commission should take to increase in many ways our over-all potential in weapons.

Advisory Committee Unanimous

"As to the Super itself, the General Advisory Committee stated its unanimous opposition to the initiation by the United States of a crash program of the kind we had been asked to advise on. The report of that meeting, and the secretary's notes, reflect the reasons which moved us to this conclusion.

"The annexes, in particular, which dealt more with political and policy considerations—the report proper was essentially technical in character—indicated differences in the views of members of the committee. There were two annexes, one signed by Rabi and Fermi, the other by Conant, Du Bridge, Smith, Rowe, Buckley and myself. (The ninth member of the committee, Seaborg, was abroad at the time.)

"It would have been surprising if eight men considering a problem of extreme difficulty had precisely the same reasons for conclusion in which we joined. But I think I am correct in asserting that the unanimous opposition we expressed to the crash program was based on the conviction, to which technical considerations as well as others contributed, that because of our over-all situation at that time such a program might weaken rather than strengthen the position of the United States.

"After the report was submitted to the commission, it fell to me as chairman of the committee to explain our position on several occasions, once at a meeting of the Joint

Congressional Committee on Atomic Energy. All this, however, took place prior to the decision by the President to proceed with the thermonuclear program.

"This is the full story of my 'opposition to the hydrogen bomb.'

"It can be read in the records of the General Advisory Committee and the transcript of my testimony before the Joint Congressional Committee. It is a story which ended once and for all when in January, 1950, the President announced his decision to proceed with the program.

"I never urged any one not to work on the hydrogen bomb project. I never made or caused any distribution of the GAC reports except to the commission itself. As always, it was the commission's responsibility to determine further distribution.

Judged in Available Light

"In summary, in October, 1949, I and the other members of the General Advisory Committee were asked questions by the Commission to which we had a duty to respond, and to which we did respond with our best judgment in the light of evidence then available to us.

"When the President's decision was announced in January, 1950, our committee was again in session and we immediately turned to the technical problems facing the commission in carrying out the President's directive.

"We sought to give our advice then and in ensuing meetings as to the most promising means of solving these problems. We never again raised the question of the wisdom of the policy which had now been settled, but concerned ourselves rather with trying to help implement it.

"During this period our recommendations for increasing production facilities included one for a dual purpose plant which could be adapted to make materials either for fission bombs or materials useful in a thermonuclear program. In its performance characteristics, the Savannah River project, subsequently adopted by the commission, was overshadowed by this recommendation.

Opposition Then Ended

"While the history of the GAC opposition to a crash program for the Super ended with the announcement of the President's decision, the need for evaluation and advice continued. There were immense technical complications both before and after the President's decision. It was of course a primary duty of the committee, as well as other review committees on which I served, to report new developments which we judged promising, and to report when a given weapon or family of weapons appeared impractical, unfeasible or impossible.

"It would have been my duty so to report had I been alone in my views. As a matter of fact, our views on such matters were almost always unanimous. It was furthermore a proper function for me to speak my best judgment in discussion with those re-

sponsibly engaged in the undertaking.

"Throughout the whole development of thermonuclear weapons, many occasions occurred where it was necessary for us to form and to express judgments of feasibility. This was true before the President's decision, and it was true after the President's decision.

"In our report of October, 1949, we expressed the view, as your letter states, that 'an imaginative and concerted attack on the problem has a better-than-even chance of producing the weapon within five years.' Later calculations and measurements made at Los Alamos led us to a far more pessimistic view. Still later brilliant inventions led

SCIENCE NEWS LETTER

VOL. 65 APRIL 24, 1954 NO. 17

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N. W., Washington 6, D. C., North 7-2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

Change of address: Three weeks notice is required. When ordering a change please state exactly how magazine is now addressed. Your new address should include postal zone number if you have one.

Copyright, 1954, by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service. Science Service also publishes CHEMISTRY (monthly) and THINGS of Science (monthly).

Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C., under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 3440, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283), authorized February 28, 1950. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to Periodical Literature, Abridged Guide, and the Engineering Index.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 1 E. 54th St., New York 22, Eldorado 5-5666, and 435 N. Michigan Ave., Chicago 11, Superior 7-6048.

SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: Ferdinandus Payne, National Science Foundation; Karl Lark-Horovitz, Purdue University; Kirtley F. Mather, Harvard University. Nominated by the National Academy of Sciences: Harlow Shapley, Harvard College Observatory; Homer W. Smith, New York University. Nominated by the National Research Council: Leonard Carmichael, Smithsonian Institution; Ross G. Harrison, Yale University; Duane Roller, American Association for the Advancement of Science. Nominated by the Journalistic Profession: A. H. Kirchhofer, Buffalo Evening News; Neil H. Swanson, Baltimore Sun Papers; O. W. Riegel, Lee Memorial Journalism Foundation. Nominated by the E. W. Scripps Estate: John T. O'Rourke, Washington Daily News; Charles E. Scripps, E. W. Scripps Trust; Edward J. Meeman, Memphis Press-Scimitar.

Officers—President: Harlow Shapley; Vice President and Chairman of Executive Committee: Leonard Carmichael; Treasurer: O. W. Riegel; Secretary: Watson Davis.

Staff—Director: Watson Davis. Writers: Jane Stafford, Marjorie Van de Water, Ann Ewing, Allen Long, C. Marden Cotton. Science Clubs of America: Joseph H. Kraus, Margaret E. Patterson. Photography: Fremont Davis. Sales and Advertising: Hallie Jenkins. Production: Priscilla Howe. Interlingua Division in New York: Alexander Gode, Hugh E. Blair, 80 E. 11th St., GRamercy 3-5410.

to the possibility of lines of development of very great promise.

"At each stage the General Advisory Committee, and I as its chairman and as a member of other bodies, reported as faithfully as we could our evaluation of what was likely to fail and what was likely to work.

Thermonuclear Progress

"In the spring of 1951 work had reached a stage at which far-reaching decisions were called for with regard to the commission's whole thermonuclear program. In consultation with the commission, I called a meeting in Princeton in the late spring of that year, which was attended by all members of the commission and several members of its staff, by members of the General Advisory Committee, by Dr. Bradbury and staff of the Los Alamos Laboratory, by Bethe, Teller, Bacher, Fermi, von Neumann, Wheeler and others responsibly connected with the program. The outcome of the meeting, which lasted for two or three days, was an agreed program and a fixing of priorities and effort both for Los Alamos and for other aspects of the commission's work. This program has been an outstanding success.

"In addition to my continuing work on the General Advisory Committee, there were other assignments that I was asked to undertake.

"Late in 1950 or early in 1951, the President appointed me to advise the Office of Defense Mobilization and the President; in 1952 the Secretary of State appointed me to a panel to advise on armaments and their regulation; and I served as consultant on continental defense, civil defense, and the use of atomic weapons in support of ground combat.

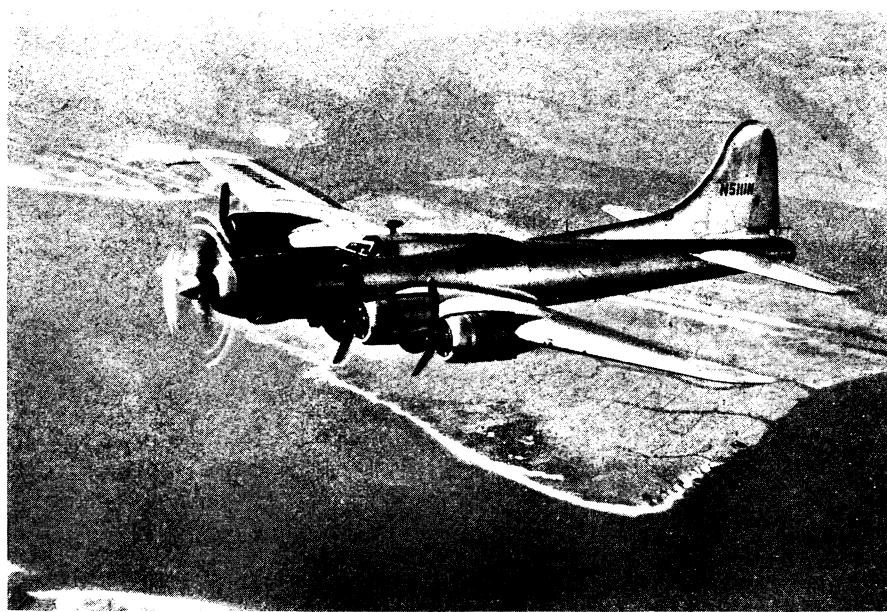
"Many of these duties led to reports in the drafting of which I participated, or for which I took responsibility. These supplement the record of the General Advisory Committee as an account of the counsel that I have given our Government during the last eight years.

Review Necessarily Brief

"In this letter, I have written only of those limited parts of my history which appear relevant to the issue now before the Atomic Energy Commission. In order to preserve as much as possible the perspective of the story, I have dealt very briefly with many matters. I have had to deal briefly or not at all with instances in which my actions or views were adverse to Soviet or Communist interest, and of actions that testify to my devotion to freedom, or that have contributed to the vitality, influence and power of the United States.

"In preparing this letter, I have reviewed two decades of my life. I have recalled instances where I acted unwisely. What I have hoped was, not that I could wholly avoid error, but that I might learn from it. What I have learned has, I think, made me more fit to serve my country."

Science News Letter, April 24, 1954



ENGINES FEATHERED—A single propeller-turbine powerplant, producing 5,700 horsepower, can propel a B-17 alone when its four piston engine propellers are feathered.

GENERAL SCIENCE

Comments of Scientists

► AFTER LEARNING that Dr. J. Robert Oppenheimer had been suspended by the Atomic Energy Commission pending review of charges he was a security risk, scientists rallied quickly to his defense.

"I can only say I have the greatest respect and warmest feelings for Dr. Oppenheimer," Dr. Albert Einstein, Institute for Advanced Study, Princeton, N. J., said. "I admire him not only as a scientist, but also as a man of great human qualities."

From the University of Chicago, where the first self-sustaining nuclear chain reaction occurred, three scientists commented.

Since the present state of international tension makes it "unfortunately necessary" to carry out loyalty investigations of men in sensitive positions, Dr. Samuel K. Allison, director of the Institute for Nuclear Studies, stated, such an investigation by competent men would completely establish the reliability of Dr. Oppenheimer. "The nation owes him a debt which it can never adequately repay," he said.

"I do not know any other person in the United States who could have provided the brilliant leadership at Los Alamos that he did, working in selfless devotion, and endangering his precarious health.

"The American people," Dr. Allison concluded, "will not be fooled by Senator McCarthy if he cynically uses this investigation as an excuse to divert attention from the coming inquiry concerning his relations with the Army, firing his usual barrage of unfounded accusations, this time, against prominent scientists."

Dr. Cyril S. Smith, director of the Insti-

tute for the Study of Metals, said that he was confident that without Oppenheimer's "dynamic and selfless leadership, a successful bomb would have been delayed by many months."

He said that, having been a member of Atomic Energy Commission's General Advisory Committee at the time the H-bomb decision was made, he still believed the committee's decision based on the technical information available at that time, was arrived at honestly, and that it would have been a "real catastrophe had the hydrogen bomb program been initiated without discussion of the issues involved.

"The resolution of honest differences of opinion among informed men," he stated, "is the very basis of democracy, and such discussion is difficult enough under atomic secrecy without persecuting one who proposed a less precipitous approach than that ultimately adopted by high authority.

"The action of the AEC will discourage free discussion of both politics and science," he said. "If followed through, it will effectively suppress the very originality of thought that gave rise to the bomb."

Dr. Leo Szilard said: "I have read very carefully the official charges against Oppenheimer. Whatever they may indicate, they do not seem to indicate the slightest suspicion that Oppenheimer might misuse restricted information. To class him as a security risk, on the basis of these charges, will be regarded by his colleagues in this country as an indignity, and abroad as a sign of insanity—which it probably is."

Science News Letter, April 24, 1954