

F.A.S. NEWSLETTER

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M. Stanley Livingston, Chairman

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No. 55 - 3

March 28, 1955

FAS PROPOSES STUDY OF H-BOMB EFFECTS

The FAS proposal to the US government, released Mar. 6, suggesting a United Nations Commission "to study and assess the potential dangers in atomic and thermonuclear bomb tests," has found strong support in the nation's press and radio. The 3-fold purpose of the proposed commission would be: (1) to study the problem of radioactive contamination resulting from bomb tests and to obtain scientific data and expert opinion on the magnitude of the radiation intensities produced; (2) to obtain and evaluate scientific opinion on the biological and genetic effects of radiation on human beings, and to establish an agreed danger threshold; and (3) to report the results of the above study to the General Assembly of the UN, with recommendations as to procedures required to avoid exceeding the danger threshold." (Full text of the proposal available on request from Washington Office.)

"DESERVES CAREFUL ATTENTION"

The Washington Star on Mar. 13 advocated "careful official consideration" of the plan, and stated that US initiative in presenting it to the UN would "do good in terms both of promoting the President's atoms-for-peace plan and winning favor for the US in those parts of the free world where our nuclear tests have been either woefully misunderstood or grossly misrepresented." The Baltimore Sun of Mar. 8 editorialized: "The proposal... deserves careful attention." The Washington Post of Mar. 8 put itself editorially behind the proposal, saying, "...we willingly modify our proposal [made earlier for a test moratorium (see NL 55-2)] in the hope of obtaining wider approval of the federation plan."

To Roland Sawyer (Christian Science Monitor, Mar. 5 mail edition), "This plea by the highly respected federation is seen as a potentially constructive development..." The proposal has been discussed in national magazines such as Life (Mar.

21), The New Yorker (Mar. 19), The Nation (Mar. 19), and Newsweek (Mar. 21). In addition to wide and intense general radio coverage, the proposal was the subject of TV or radio interviews with FAS spokesmen on WABC-TV in New York on March 7 and on WGBH in Boston.

On his Mar. 13 TV program, "The American Week," Eric Sevareid interviewed FAS chairman M. Stanley Livingston about the proposal. Sevareid said the FAS must be listened to since "these men, after all, were prophetically accurate about the development of the weapons themselves." He concluded his Mar. 7 CBS Radio News Analysis: "It seems clear enough that some form of universal test control must be striven for -- now -- lest the world discover one day, as it discovered on atomic disarmament, that it has passed the point of no return."

MARKET FOR IDEAS

The FAS proposal was presented partly as a possible means of minimizing the danger of catastrophe from the flank while principal attention is

devoted to seeking a solution to the main problem of preventing the frontal holocaust of nuclear war itself. As the world's peoples and governments come to a fuller awareness of the true potency and scope of the nuclear phenomena which they have tapped, their realization has generated much sober thought and an expanded effort toward arriving at some mechanism for maintaining mankind and earth in approximately their present physical states.

In the US, President Eisenhower announced on Mar. 19 the creation of a new Cabinet-level post of Special Assistant to the President for Disarmament Problems, to which he appointed Harold E. Stassen. Stassen is charged with finding new approaches to breaking the present international impasse, and on Mar. 20 appealed to all Americans to send him "ideas, suggestions and comments" which he might use in his search for a "basic policy" on disarmament. On Mar. 21, Sen. George (D, Ga.), chairman of the Senate Foreign Relations Committee, suggested that President Eisenhower initiate and personally participate in a meeting of the heads of government of the world powers, especially including Russia. This suggestion is now a subject of intense discussion in the nation, with President Eisenhower not explicitly accepting it, but by no means rejecting it. On Mar. 24, he announced that on Mar. 30 and 31 he would hold one of his rare conferences with Congressional leaders of both parties to discuss foreign policy, presumably including Sen. George's suggestion.

Sen. Symington (D, Mo.) introduced on Mar. 2 a Senate resolution co-sponsored by 47 other senators of both parties. The "butter-over-guns" plan asks international limitation, with effective inspection, on the percentage of a nation's economic resources which could go to military purposes. This idea poses a double-barreled safeguard against war, in that strengthening

a nation's civilian economy should raise its standard of living -- thus reducing its motivation to war -- and suppressing its military economy would reduce its capability of waging war.

LONDON CONFERENCE

The UN Disarmament Commission subcommittee meeting in London (see NL 55-2) continued its closed door talks with little optimism being felt for fruitful results. Early pessimism was essentially unrelieved by a reported shift on Mar. 24 toward the US plan for gradual, step-wise reduction of armaments with rigid inspection. On March 24, James Wadsworth and Jules Moch, respective US and French delegates to the conference, assailed the Russian plan as an attempt to perpetuate Russian superiority in mass armies. Meanwhile, until safe disarmament can be achieved, an increasing number of governments -- now including the US, Britain (see NL 55-2), Australia and France -- announce explicit decisions to rely on nuclear might for their national security.



RADIATION EFFECTS CONTROVERSIAL

Radioactive fallout from the recent A-bomb tests in Nevada has caused considerable apprehension and anxiety in widely scattered parts of the nation. However, authorities in Chicago and New Jersey did not consider the radiation level to be harmful. In Chicago, Walter C. McCrone, senior chemist at Armour Research Foundation, reported the city's "hottest ever" dose of radiation in a rain and hail storm on Mar. 3 was still "some way" from being a danger. On Mar. 16 the Atomic Scientists of Chicago, an FAS chapter, reported slight radioactivity well below the level considered unsafe in the Chicago drinking water supply. New Jersey's Labor and Industry Commissioner, Carl Holderman, said on Mar. 14 that his state faced an "insidious hazard" from fallout, but a spokesman for the N.J. Dept. of Health said that in their monitoring no radiation level that could conceivably be harmful has ever been detected. On the other hand, in a New York Times report of Mar. 13, concern about fallout was emphasized by 5 damage suits filed against the Federal government, by Cedar City, Utah sheepmen who claim their animals sickened and died as a consequence of fallout during the 1953 tests.

TO INFORM OR NOT TO? Ray R. Lanier and Theodore Puck, medical scientists of the Univ. of Colorado, warned that radioactive fallout from the Nevada nuclear tests had reached a point in Colorado where it could no longer be ignored by those concerned with public safety (Washington Post, Mar. 13). This announcement was immediately branded as a "phony report" by the state's governor, former Joint Atomic Energy Committee member Edwin C. Johnson, who said the scientists should be arrested. Johnson later accused American scientists of waging "a nationwide drive" against development and testing of atomic bombs (Washington Post, Mar. 20).

Minette, columnist in the Tonapah (Nev.) Times-Bonanza of Mar. 18, took issue with Johnson's attitude, saying: "Instead of trying to suppress the views of medical scientists, I believe that all information regarding our safety should be made public to the residents of this area who are directly affected." (Tonapah is about 90 air miles from the Nevada Proving Grounds.) An editorial in the Des Moines Register (Mar. 17), referring to Johnson's remarks, expressed hope that responsible scientists would continue open discussion of the dangers of fallout and would "refuse to be cowed by Gov. Johnson's emotional mutterings and threats."

Meanwhile, statements concerning the biological effects of radiation fallout have been issued from many sources. On Mar. 14, biologist George V. Leroy (U. Chicago) told a Senate subcommittee studying Federal security programs that vital medical information for treating victims of A- and H-bombs is needlessly being withheld from the American people. The Atomic Energy Commission denied this by stating on March 15 that "medical and biological information... is made public as rapidly as it can be properly evaluated and correlated."

In a statement Mar. 16, Linus Pauling, Nobel Prize chemist, warned that radiation from atomic tests could be potentially fatal to persons whose resistance is low to cancer, while in England, Frederick Soddy, Nobel Laureate physicist, said on Mar. 21 that H-bomb explosions "are fouling the air with radioactivity" and "it is nonsense to say it is harmless." And on Mar. 23, Prof. Joseph Rotblat, who was an associate of Sir William Penney, Britain's leading atomic scientist at Los Alamos, declared that "future generations of all nations" may forever pay "through disease, malformation and mental disability for our folly" unless effective curbs are placed on hydrogen weapons.

SUGGESTS FURTHER READING In his column of Mar. 15, David Lawrence took the view that the overemphasis of the genetic effects of radiation is Communist propaganda, since "there isn't the slightest proof of any kind that the 'fallout' as a result of tests in Nevada has ever affected any human being anywhere outside the testing ground itself." Lawrence further charged that "many persons are innocently being duped by it and some well-meaning scientists and other persons are playing the Communist game unwittingly by exaggerating the importance of radioactive substances known as 'fallout.'" In answer to his charge, the Washington Star cautioned editorially Mar. 16 about Lawrence's dogmatism and suggested that he do further reading on possible long-range genetic hazards.

GOVERNMENT PRESENTS BRIEF IN PETERS CASE

The right of the Executive Department to fire its employees as it sees fit was defended in a brief prepared by the Justice Dept. and submitted to the Supreme Court on Mar. 3. The brief was in answer to one presented to the Court by the lawyers for John P. Peters, Yale medical professor, who contends that the procedures followed in his dismissal as a consultant to the Public Health Service do not observe due process (see Newsletter 55-1, summarizing Peters' arguments and supporting briefs).

Basically the Executive Dept. is fighting to maintain the present security program as it stands, even though this case is concerned with the old Truman Loyalty Program. Specifically, the brief argues that a defendant in a security hearing has no right to cross-examine hostile witnesses since "vital sources of information... might well dry up to the detriment of the basic security of the country. ... undercover agents, paid informers and casual informers... must be guaranteed anonymity." The brief further states that an employee has never had, and should not now have, the right to a judicial or quasi-judicial hearing upon dismissal. Referring to the consequences of dismissal, it stated: "The difference in harm resulting from a dismissal on loyalty grounds and a dismissal for offenses of serious moral turpitude is a difference in degree, not in kind."

The non-sensitive nature of the position held by Peters should in no way affect the case, according to the Attorney General, since "the President could rationally conclude that no activity of the government was so unimportant that it could be entrusted to persons deemed disloyal to the United States."

SEPARATION OF POWERS One of the arguments presented in the brief is concerned with the doctrine of "separation of powers." Thus "the appointment and removal of government employees is a matter of executive discretion which is subject to judicial review only for compliance with applicable statutes or regulations." Therefore, since no constitutional rights or laws have been violated in this case, it is not within the province of the Supreme Court to throw out the dismissal, says the Justice Department brief.

An interesting sidelight to the presentation of the brief was the omission of the signature of Simon E. Sobeloff, the Solicitor General, who usually signs all briefs presented to the Supreme Court by the Attorney General. When asked about this omission, Sobeloff said, "The Attorney General and I are in complete understanding about the matter," but newsmen noted the absence of the word "agreement."

OPPENHEIMER BAN ISOLATES U. WASHINGTON

Controversy continues over the cancellation of J. Robert Oppenheimer's invitation to lecture at the University of Washington by University President Henry Schmitz (see NL 55-2). On February 25, reports started to appear that speakers were refusing invitations to the university on the ground that Schmitz's action was a violation of academic freedom. Among these were V. F. Weisskopf, physicist of M.I.T., and Alex Inkeles, sociologist, and Percy Miller, historian, both of Harvard.

More dramatic, however, was the announcement on Mar. 24 of a round-robin letter, signed by 7 of 8 scientists who were to participate in a "Symposium on the Molecular Basis of Enzyme Action," planned for April 7-8. The letter, stating that the U. of Washington had placed itself "outside the community of scholars," caused the cancellation of the conference, at which attendance of more than 300 was expected. The eighth scientist, a Canadian, indicated he would not participate for similar reasons.

After accepting an invitation to participate in another symposium at the U. of W. on "Recent Advances in Invertebrate Physiology," C. A. G. Wiersma, biology professor at Cal. Tech., withdrew his acceptance on Mar. 8 saying, "I cannot accept the hospitality of an institution the administration of which has taken the actions [in regard to Oppenheimer] I have described."

On the other side of the ledger, Sen. Neuberger (D. Ore.), in a statement on Mar. 10, praised Oregon's chancellor of Higher Education for upholding the invitations to Oppenheimer to speak at Oregon schools in April. "The state of Oregon gains through contrast with the timidity of an official of her sister to the North," Neuberger commented.

SECURITY PROGRAM EXAMINED

Security was again near the top of Washington interest during March. But the tone was a new one, particularly in contrast to March of a year ago when headlines dealt with the security-distorting activities of a Senate Government Operations subcommittee. This March, focus again was on a Senate Govt. Operations subcommittee -- this time holding hearings under Sen. Hubert Humphrey, on his and Sen. Stennis' resolution to establish a bi-partisan Commission on Government Security (see Newsletter 55-2).

PRO - WHO? William F. Tompkins, Assistant Attorney General in charge of Justice's Internal Security Division, charged on the opening day of the hearing (Mar. 8) that "the current attack against Government witnesses and informants of the FBI has its roots in a Communist effort to stem the successful campaign of this Government to eliminate the subversion threat of communism to our internal security." He saw the demand for confrontation of witnesses in security proceedings as part of this effort. This brought a stinging editorial rebuke from the N. Y. Times (Mar. 6) which called the statement "almost incredible" and asserted that "few official governmental statements have been more shocking in their implications." The Times referred to the many distinguished citizens, including the Solicitor General of the US (see article on Peters case, page 2), who it said have reservations about existing security procedures, and wondered whether it had heard Mr. Tompkins correctly in his apparent characterization of such sources as pro-Communist.

CRITICISMS Many individuals and organizations apparently had decided that if this be pro-Communism they would have to live with the appellation -- because they came to testify in a steady stream on succeeding days. Most spoke of the deleterious effects of the Eisenhower security program and urged passage of the Humphrey-Stennis resolution. Among the criticisms: tangled clearance procedures have hampered civil defense by walling off officials from essential atomic data; wide differences exist in the criteria and procedures of various agencies leading to confusion and inconsistency as in the publicized Ladejinsky case; the tallies of security separations which have been published have been inflated far beyond the true picture; medical data which would be vital in event of atomic attack have been withheld from the nation's physicians (see story on fallout in this NL); relationships between scientists and other scholars and the government are being disrupted; prejudice and bigotry can operate under the cover of current security procedures.

Among those critical of various aspects of security programs now in effect: McGeorge Bundy, dean of Harvard's Faculty of Arts and Sciences; George LeRoy, associate dean of the Biological Sciences Division, U. Chicago; Bernard Fitzsimmons, security director for Douglas Aircraft; FAS; ACLU; American Jewish Congress; ADA; CIO; AVC; Engineers and Scientists of America. Editorially supporting a commission to review the security program, although not testifying -- Chem. & Engineering News (Mar. 14); Christian Science Monitor (Mar. 8).

The New York City Bar Association, which is looking into the federal security-loyalty program, announced on Feb. 28 the appointment of 7 lawyers to its study committee headed by Dudley B. Bonsal. The study, financed by the Fund for the Republic, is expected to complete its work within a year.

"IMPROVEMENTS" CHILLING The President is on record as seeing no need for the kind of commission proposed in the Humphrey resolution. In a letter released Mar. 6, Attorney General Brownell informed the President that the security program was essentially proceeding well and recommended 7 steps for its further improvement. The N. Y. Times of Mar. 7 editorialized: "This is a late date indeed to introduce such elementary reforms, and it is chilling to reflect on what the situation may have been in individual cases up to now. Does the latest set of changes go far enough and protect both the national security and the rights of the individual federal worker? The answer would seem to be rather clearly in the negative."

Recent unfavorable comments on the security program came from two remarkable sources. According to the Washington Daily News (Mar. 21), Rep. Martin Dies is drafting legisla-

CIVIL DEFENSE CONCERN MUSHROOMS

Civil defense activities, after years of apathy on the part of both the public and a large number of high officials, appear to be assuming a more important role in the thinking of national planners. Confusion, which seems to be the caption under the CD picture in the public mind today, is well illustrated by the results of a 7-month study by the Johns Hopkins Operations Research Office on evacuation of Washington, D.C. The ORO reported that "there simply is not adequate sound information which will permit definite conclusions," and no specific course of action was recommended.

There is some area of limited agreement, however. Jas. K. Sparkman, reporting in the Christian Science Monitor of Mar. 19 concerning a meeting of the Nat. Advisory Council of the Federal Civil Defense Administration held in Washington the previous week, said: "Space -- emptying a city in a matter of hours -- is, defense planners believe, the sole answer today." That mass evacuation is possible was shown in a study made in Milwaukee last fall. Other cities, such as St. Louis, Mobile, San Francisco, Detroit, Philadelphia, and Minneapolis, have drawn up tentative plans for such evacuations. On the other side of the subject, during the course of a debate in Los Angeles, a skeptical attitude was expressed by Col. Lynch, a consulting engineer and member of the Inst. of Traffic Engrs., who said that it would take 2 days to get the 2.5 million cars on the road.

BEST CD IS PEACE FCDA administrator Val Peterson warned that a lot of thinking on defense against massive bomb attack was obsolete, much of it possibly dangerous, and further that the significance of the A- and H-bombs for the country's future was so big that even the Federal government did not fully understand the problem. The last word and acknowledged best solution to the problem is given succinctly in the preface to the Milwaukee traffic study report: "The best civil defense is peace."

FAS PHILA. BRANCH will show the Murrow-Oppenheimer film interview Apr. 19 & 21, New Physics Bldg., 33rd & Walnut, 8 P.M.

tion to require fairer hearings -- including confrontation of witnesses -- for persons accused as security risks. Dies, who was the first chairman of the House Un-American Activities Committee, said "I never wanted this to become an emotional, hysterical thing." The News says Dies thinks the security program has become just that. Former Sen. Harry P. Cain, a member of the Subversive Activities Control Board, continued his criticism, first voiced in January (see NL 55-1), in a speech to the National Civil Liberties Clearing House Conference Mar. 18. Cain charged both Republican and Democratic Administrations with mixing politics with security. In addition to the procedures followed in security cases, he decried the administration of the Attorney General's List of proscribed organizations.

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The FAS is a national organization of scientists and engineers concerned with the impact of science on national and world affairs. The Newsletter is edited by members of the FAS Washington Chapter.

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REACTOR FOR DEMONSTRATION

Indications are that all aspects of the President's Atomic Pool Plan are rapidly moving forward. The AEC announced on Mar. 23 that the US will build a large operating "swimming-pool" type research reactor for demonstration at the Geneva Conference this summer. The reactor will use uranium enriched with about 20% U-235. It has been stated officially that the 100 kilograms of U-235, which the US has pledged to make available to a world pool, will be enriched to a maximum of 20% U-235 by weight. This is less concentrated than the approximately 90% required for weapons material, but more useful than the very low enrichments, of the order of a few percent, which are used for some types of reactors.

On Mar. 15, the first group of 31 foreign scientists and engineers enrolled at the Argonne National Laboratory for a 7-month course in the School of Nuclear Science and Engineering. They represent 19 nations which have elected to participate in another major undertaking of the US Atomic Energy Commission in support of the A-Pool Plan.

Recent indications of possible Soviet cooperation in the A-Pool Plan (see NL 55-1) were contradicted by an Izvestia article reported in the N. Y. Times of Mar. 13. The article claimed that America's motives behind the plan were to capture the world's sources of uranium. It is not clear yet whether Russia is reverting to a more explicitly hostile attitude on the plan.

VISA BILLS INTRODUCED

Two bills concerning non-immigrant visas (H. R. 3998 and H. R. 4369) have been introduced in the House by Representatives Celler (D, N.Y.) and Gubser (R, Calif.), respectively. These measures provide that a foreign figure in the world of science, the arts, athletics, etc., invited to visit this country by an approved American organization, will be admissible without consideration of his political history and beliefs.

A staff report of Mar. 13 from the House Judiciary Committee noted that the provision of the present law, permitting visas to be granted to otherwise inadmissible aliens at the discretion of the Attorney General, does not seem as currently administered to have provided as "flexible" a policy as might be desired. The report stated that "certain consular officers" appear to "display a considerable degree of shyness in deciding to recommend to the Attorney General" that he use his discretionary powers to admit alien visitors otherwise inadmissible. "Publicity unfavorable for the US has ensued in several cases" which could have been avoided, according to the report.

The FAS COUNCIL will hold its annual spring meeting in Washington, D.C. at the time of the American Physical Society meetings. The Council will meet in 2 sessions, April 27 and 30.

F A S NEWSLETTER

Federation of American Scientists
1749 L Street, N. W.
Washington 6, D. C.

CENSORSHIP SHADES SCIENTIFIC INFORMATION

Unclassified scientific information is now exposed to potential and apparent censorship from several directions in addition to the Commerce Department's Office of Strategic Information (OSI) (see NL 55-1 and 54-10). Warren Unna (Washington Post, Mar. 12) reports an interview with a Post Office Dept. spokesman concerning the mail ban against unauthorized subscriptions to Pravda and Izvestia. The spokesman extrapolates: "It is perfectly possible that a scientific paper might serve as the basis for some political propaganda and if its supposedly legitimate purpose were prostituted in that way it would be withheld." According to the Commerce Dept.'s Current Export Bulletin No. 741, dated Dec. 16, 1954, the "exportation" of any "technical data" to any country outside the US except Canada has, since Jan. 15, 1955, required a general export license.

The OSI was strongly criticized by the American Civil Liberties Union, in a letter from ACLU director Malin to OSI director Honaman. The letter referred to the plan as "an act of censorship that violates the freedom of expression guaranteed by the First Amendment." The editors of Science warned, in the Mar. 4 issue, that developments in OSI should be watched closely because "the types of information affected have not yet been described and because the adoption of the principle involved might serve as a precedent for enlarged efforts to control the publication of scientific and technical information."

A E C APPOINTMENTS -- CONFIRMATIONS

A possible full complement of 5 AEC Commissioners is now in sight with the Mar. 14 Senate confirmation of John von Neumann and the Mar. 16 Presidential nomination of Allen Whitfield as commissioners. The N. Y. Times and the Washington Post of Mar. 9 made note that the Joint Atomic Energy Committee approved von Neumann's nomination after taking into consideration a background including some factors of the type which entered into Oppenheimer's designation as a security risk. Whitfield is a Des Moines, Iowa attorney who heads a law firm engaged in general practice, and is a trustee of Ames and Simpson colleges.

GOUDSMIT CONTRADICTS PONTECORVO'S CLAIMS that atomic science in Russia is more devoted to peaceful pursuits than in the US. In a letter to the N. Y. Times of Mar. 15, physicist S. A. Goudsmit, editor of the Physical Review, said: "Our scientific journals contain thousands of detailed articles on medical, biological, archaeological and technical uses of atomic science... In contrast, the Russian journals... do not contain one single technical article on these peaceful uses of atomic energy."

The FAS Washington Office will move early in May to newly redecorated quarters a few blocks from its present location.

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AN EXPRESSION OF OPINION

The following statement by Lothar W. Nordheim of Durham, N.C. is reproduced at his request. For the reasons given in his statement, Dr. Nordheim regrets the contents and the handling of the proposal released by FAS on March 6, urging the US Government to ask the UN to conduct a study of existing and potential biological and genetic dangers from nuclear explosions. Since Dr. Nordheim is a candidate for 1955-56 Vice-Chairman in the current FAS elections, he and the FAS Executive Committee agree that it is important that his views be made known to the membership. Expressions of opinion, and comment, on the proposal are invited from the membership.

* * * *

The text of the F.A.S. proposal for a United Nations Commission to study the problem of H-bomb tests was given in Information Bulletin No. 60, dated March 8, 1955. It was reported in our local paper as follows:

"NEW YORK, March 6 (UP) -- The Federation of American Scientists warned today unlimited test explosions of atomic and hydrogen weapons may cause long-term damage to the human race.

"The federation appealed to the United Nations to act quickly to keep the nuclear weapons race from turning into a radiation assault on all humanity.

"... We may be approaching a point where we cannot be sure that we will not make all the world a laboratory and all living things the experimental objects,' it says.

"The federation said the earth's 2 $\frac{1}{2}$ billion inhabitants and all future generations may be endangered by radiation from the continuing unrestricted test explosion of atomic and hydrogen devices in tests conducted by nuclear powers.

"The organization, representing 2000 scientists and engineers, urged the United Nations to launch a program that might lead to controls on nuclear tests similar to the regulation of hunting and fishing seasons -- even including the issuance of licenses.

"The federation asked the United Nations to:

"1. Determine how much radiation is added to the atmosphere by major atomic and hydrogen explosions.

"2. Determine how much radiation the atmosphere can absorb from hydrogen and atomic explosions before long-term injury to the human race is threatened.

"3. Establish controls necessary to safeguard the human race. These might include a global monitoring service, setting of explosion quotas and even establishment of 'open seasons' for explosions, at times of the year when the weather is most favorable.

"We cannot forgo another effort to do something about the mounting threat to all mankind posed by unrestrained continuance of the nuclear arms race,' the federation said.

"The federation took issue with assurances by the Atomic Energy Commission that nuclear tests pose no genetic dangers. It said some scientists believe

radiation can effect humans so they may pass on undesirable characteristics to future generations."

It was similarly reported by several radio news commentators.

This version differs, of course, widely from the actual proposal. The most important deviation is that the proposal appeared as a direct appeal to the United Nations, while in fact it was addressed to the State Department Office for United Nations Political and Security Affairs and to the U.S. Representative to the United Nations, Ambassador Lodge. The UP dispatch creates thus the impression of an appeal over the head of our Government to the United Nations, and by implication, of a strong censure of our test program. This impression is aggravated by the timing of the proposal shortly after the AEC release of data on the radioactive fallout following the test of March 1, 1954.

The version given by the UP is, however, typical of the way the press would react to and dramatize such a highly emotional document, and this should have been foreseen. It is clear that stories of this kind will tend to increase the tensions that already exist between scientific circles and our Government, and that they form grist for the propaganda mills of those opposed to the policies of the USA. I regret, therefore, that this proposal has been made in this form at this particular time.

The mistake has been, so far as I can see, to a great deal in the address to which the proposal has been sent. The US representative to the United Nations is not in a policy-originating position. The State Department Office for United Nations Affairs has no jurisdiction over the release of atomic information. The US A.E.C. on the other hand, is not in a policy-making position with respect to foreign relations. Therefore, the only logical addressee would have been President Eisenhower, as the only one who really could initiate any action in this matter, just as it was he who initiated the atomic power for peace plan. His choice would certainly have prevented any wrong impression.

A second mistake was the omission of any mentioning of the fact that also the Russian tests produced a much less publicized fallout of radioactivity over Japan, while the fallout from our test was prominently described.

What we need most at this time is more factual information, so that the dangers of atomic tests and warfare can be discussed on basis of facts and not only of emotions. The only source for this information at present is our own A.E.C. I consider it the most important immediate objective of our scientific community to convince our own authorities that declassification of the subject of radioactive hazards from bombs would in no way endanger our national security, but that it would be only to our own advantage. When this has been achieved, then it will be the time to seek international cooperation for a world-wide study of the hazards.

-- Lothar W. Nordheim

THE BALTIMORE SUN
March 8, 1955

**Proposed Study
Of Bomb Test Effects**

The proposal by the American Federation of Scientists that the United Nations undertake a study of the facts of nuclear-bomb tests deserves careful attention.

It is not suggested that the tests be banned absolutely, nor is this a program for atomic disarmament. The group of scientists is interested simply in an accurate assessment of radioactive contamination to date, and in establishing a possible point beyond which continued testing of nuclear weapons might become biologically and genetically dangerous.

Spokesmen for the group say that a careful study might disclose that tests alone, without nuclear warfare, would not approach the danger point; or that the taking of essential precautions, to be set forth in the study, would avert any danger.

All nations with existing or prospective nuclear weapons programs are, of course, engaged in studies of their own. The United States Atomic Energy Commission has recently issued a report on radioactive fall-out. Yet even this report, which in the circumstances was reasonably full, gave but passing mention—largely to express lack of adequate knowledge—of the possible damage nuclear bombs may do to the genes of future generations.

The merit of the Federation of Scientists' proposal, in any case, is its international aspect, with the inherent possibilities of a monitoring service and of sanctions against any nation which might go beyond the point of danger in its weapons tests. A nation which refused to accept the results of a United Nations study would stand condemned as utterly indifferent to the welfare and the future of mankind.

THE WASHINGTON POST
March 8, 1955

Plenty and Poverty

A new and terrifying portent of nuclear warfare is drawn by the reports that the hydrogen bomb exploded in the Pacific last spring had a jacket of uranium. If these reports are true, they mean that

refined natural uranium (U-238) becomes fissionable as a result of the fusion of hydrogen explosions. The supply of U-238, unlike the plutonium or U-235 that goes into atomic weapons, is practically unlimited; and the effect of the discovery, as Alfred Friendly has pointed out in this newspaper, is to multiply by countless times the destructive power of the nuclear arsenal. It is as if ordinary water could be added to gasoline to give it twice the original energy. Not only does the addition of natural uranium add enormously to the blast effect of hydrogen weapons, it also apparently contributes vastly to the problem of radioactive fall-out.

The process seemingly is a simple one, and initial reports of the American experiments came from Japanese scientists who examined the fishing boat contaminated in last spring's explosion. It must be assumed that the Russians also know the technique of making cheap nuclear weapons, though whether they have used it in their own experiments is not clear. At any rate, the disclosure merely serves to emphasize that the age of nuclear plenty is here, at least as respects war potential. Where there is poverty amid the plenty is in the feeble and so far unsuccessful efforts to control this force before it destroys the world.

It is appropriate at this point that the Federation of American Scientists should propose the establishment of a United Nations commission to study the effects of atomic and hydrogen bomb tests. No doubt the proposal was unrelated to the new disclosure, but it has even more point in view of the magnified problem. The 2000-member federation suggests that the U. N. commission examine the extent of radioactive contamination as the result of past tests, evaluate the potential genetic effects on human beings of future tests and attempt to establish a "danger threshold." All nations would be asked to cooperate in the establishment of a U. N. long-range monitoring system to detect unapproved tests. "Anticipation of a general world reaction," says the federation, "should be sufficient to enforce compliance; the system would be to a considerable extent self-policing."

In many respects this plan resembles a proposal made last month by this newspaper for a self-enforcing ban on further hydrogen-bomb tests through a long-range monitoring system. We should like to see an actual moratorium; but we willingly modify our proposal in the hope of obtaining wider approval of the federation plan. Incidentally, the federation takes account of the fears of some geneticists that the amount of radioactivity already in the atmosphere may be harmful. While noting that these fears are seriously disputed by others, the federation adds:

It should be clear that future accelerated H-bomb test programs, by several atomic powers, will ultimately reach a level which can be shown to be a serious threat to the genetic safety of all people of the world.

Equally significant is the federation's plea that the United States itself make the proposal in the U. N. This country stands convicted in the eyes of many foreigners "of an attitude of callous disregard" for the health and safety of others, the federation asserts, and "mere acceptance by the United States of such a proposal"—especially if it were broached first by the Russians—"would not have as much significance as though the United States were to initiate the proposal." We are happy to reiterate these arguments, many of which have appeared before in these columns. It is incredible that a nation which can be so ingenious in unlocking the door to nuclear plenty cannot be equally ingenious in offering a small but imaginative step away from destruction.

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Worth Looking Into

The Federation of American Scientists has put forth an interesting though debatable idea in proposing that our Government take the lead in an effort to set up a special United Nations commission or subcommittee "to study and assess the potential dangers in atomic and thermonuclear bomb tests."

In making this suggestion, the federation has not indorsed the unrealistic proposal—as first advanced last April by Prime Minister Nehru of India—for an immediate and complete ban on all such experimentation. Nor has the organization disputed the Atomic Energy Commission's recent assurances (1) that the total of the tests to date—ours, Russia's and Britain's combined—has caused only an exceedingly minute and thoroughly harmless increase in the amount of radiation received by Americans and (2) that none of the AEC's exhaustive studies "shows that residual radioactivity is being concentrated in dangerous amounts anywhere in the world outside the testing areas."

Nevertheless, despite these assurances, the federation has warned "that future accelerated H-bomb test programs, by several atomic powers, will ultimately reach a level which can be shown to be a serious threat to the genetic safety of all people of the world." This same possibility was discussed by The Star's Science Editor, Thomas R. Henry, in a series of articles last November. The AEC's experts apparently discount the danger. But even so, while emphasizing that a continuation of experimental detonations is of great importance to the security of the United States and other free nations, they have acknowledged that "there is a rather wide range of admissible opinion on this subject," and they have made clear that the whole question still involves enough "ifs" to require constant and thorough study.

This fact—the fact that the AEC itself does not absolutely rule out the possibility of serious long-range genetic hazards—lends strength to the federation's proposal for a U. N. commission to inquire into the matter with two primary objectives in view: (1) The establishment, if warranted, of a safety limit or "danger threshold" for future A and H tests and (2) the creation of international machinery to guard against any nation's experimentation that would go beyond that threshold. Certainly, since it bears upon the reproductive health of the human race, the subject calls for a full-dress study of some sort—a fact that explains why it will be up for at least a little discussion at our American-sponsored scientific conference scheduled to be held in Geneva next August, with the Russians attending.

True, on close inspection by qualified experts, the federation's idea may be found to be impractical or otherwise unsound, but it seems impressive enough, as it stands, to merit careful official consideration. For if it is feasible, and if our Government takes the initiative with it in the U. N., it can do good in terms both of promoting the President's atoms-for-peace plan and winning favor for the United States in those parts of the free world where our nuclear tests have been either woefully misunderstood or grossly misrepresented.