

Office Memorandum • UNITED STATES GOVERNMENT

TO : EO - Mr. Staats

DATE: June 12, 1956

407132

FROM : R. Hirsch *RH*

SUBJECT: AEC Staff Report on NAS Radiation Study



1. Attached herewith an AEC Staff Summary of the NAS Report on "The Biological Effects of Atomic Radiation". The following highlights and conclusions may be of interest to OGB:

"I. The effects of atomic weapons testing.

"(a) The genetic effect of weapons tests:

"There is no safe dose of radiation in genetic terms; and exposure of the sex organs is genetically undesirable.

"The AEC is doing 'a technically competent and a socially conscientious job of measuring fallout,' but the availability of such measurement data does not mean that all questions about the biological risks involved can be answered...(p. 1)

"The fallout from weapons testing has, so far, led to considerably less irradiation of the population than have the medical uses--and has therefore been less detrimental. So long as the present level is not increased this will continue to be true; but there remains a proper concern to see to it that the fallout does not increase to more serious levels.'

"Records should be kept for every individual, showing his total accumulated lifetime exposure to radiation.

"The medical use of X-rays should be reduced as much as is consistent with medical necessity...

"The somatic effects of weapons tests.

"The report states that, at the dose levels recommended by the Genetics Committee, there would be no demonstrable somatic effect to populations, 'although a theoretical minor shortening of life span could not be ruled out.'...(p. 3)

"Radiological effects upon the general public.

"This question is covered in considerably greater detail. As a matter of fact, the question of possible radiation effects from industrial atomic energy operations seems to be viewed with somewhat more concern than radiation effects from weapons tests.

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"The Genetics Committee states that atomic power plants and disposal of atomic wastes 'are future sources of radiation that might become dangerous.'... (p. 6)

"There is a remote possibility that a reactor accident might release radioactivity over thousands of square miles. By the year 2000, the release of only one percent of the worldwide strontium inventory could produce twice the maximum permissible concentration in the global atmosphere, and this amount could seriously contaminate the entire earth. International control to establish and maintain high standards of safe plant operation is essential.

"The 'layman's summary' of the report states that: 'when a worldwide atomic power industry becomes fully developed, its accumulated waste products might represent more radiation than would be released in an atomic war.' After making this eye-catching statement, the report states: 'Of course, this radiation will be imprisoned, not broadcast.'... (pp. 7-8)

2. The AEC Staff Study points out that:

"The conclusions of the report regarding weapons testing are fairly good from our point of view. Although it is clear that the Genetics Committee considers testing as harmful from the genetic point of view, it states emphatically that the hazard from testing is small compared to that from the natural background or from the medical use of X-rays. (p. 9)

"The report's discussion of possible radiological hazards from industrial and waste disposal operations may lead to exaggerated stories. Here, we need to background correspondents on the great care the Commission always has taken to prevent hazardous release of radioactivity, the various precautions which are in effect in the Commission's own operations and its regulations to control commercial operations, and the research which is going on in such areas as waste disposal. In doing so, we should not appear to throw down the report's call for much more research on a speeded-up schedule." (p. 10)

3. Copies of the Staff Study were furnished to members of the Working Group (State, Defense, CIA, USIA, ODM, FCDA) and to Gov. Stassen's Office, with specific attention drawn to the questions and answers on pages 11-16 which could form the basis of guidance to information media. It was recognized among members present that the provisions of NSC Action 1360 would apply to discussions of fall-out from weapons tests and that any comment on this subject would have to be cleared with the Chairman, AEC, in accordance with the NSC Action. It was also agreed generally among representatives present that any further statements would be cleared with AEC, which would act as a coordinating point in this respect.



4. Morse Salisbury advised that AEC would not initiate comment on the NAS Report but would be prepared to answer specific queries from the press along the lines indicated in the Staff Study:

"Does the Commission have any comment on the report?"

ANSWER: The Commission is gratified that this distinguished group of scientists has given such extensive study to the facts available on the biological effects of radiation, and has issued its initial findings and recommendations. The Commission since inception has been aware of the importance of obtaining all possible information regarding radiation effects, and has sponsored much of the research upon which the N.A.S. findings were based. The Commission cooperated fully with the National Academy of Sciences in providing data for this independent study and, of course, intends to give the report careful study. (Correspondents also may be told that, although we are not commenting on the report at this time, we will be glad to supply background on the Commission's radiological safety standards and procedures.)" (p. 11)

5. After consultation with members of the Working Group, I feel that the NAS Study will continue to pose a difficult public relations problem for the government in dealing with quotations taken out of context and that the two NAS documents provide fertile materials for propagandists who are adjutating against continuation of weapons tests. The reports also raise, for the first time, the question of long-range hazards to life which might be created by the adoption of nuclear power on a large scale throughout the world. Over the course of the next year or so we might find increasing misunderstandings and actual hesitations on the part of potential users to enter into this field until the questions raised by the geneticists have been more satisfactorily answered.

6. AEC feels generally that they are not able to predict the press play which this may receive and are inclined to await developments after Wednesday rather than venture rash predictions.

Attachment:

AEC Staff Report on NAS
Radiation Study.

cc: Mr. Melbourne
Dr. Lilly
Mr. Mrozinski