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April 9, 1954

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General Manager

Brig. General K. E. Fields, USA
Director of Military Application

FALLOUT FROM CASTLE

MA:PCP

JCB
John C. Bugher, P.D.
Director, Division of
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This is a summary of your meeting on April 8, 1954, with Dr. Bugher, Dr. Scoville, Dr. Fins, and me on the subject of fallout of radioactive material resulting from Operation CASTLE.

The local fallout ~~_____~~ probably amounted to at least 20 percent of the fission products produced. Dr. Bugher mentioned that figure, while Dr. Scoville thought that a value several times greater might be possible.

~~_____~~
Some fallout did occur, since the remotely controlled Liberty ships were contaminated. Dr. Scoville was first of the opinion that fallout would be similar ~~_____~~ with water droplets acting in the same way as coral particles in bringing down radioactive debris. However, after looking at photographs ~~_____~~ Dr. Scoville agreed that the stem of the mushroom cloud appeared to be relatively slender ~~_____~~

There was less fallout on the Bikini atoll itself ~~_____~~ but this may have been due to the difference in the wind directions.

3. There is no real evidence to indicate that contamination of the earth's atmosphere is worse for a barge shot than for a shot on coral. However, even if the world-wide contamination due to the remaining barge shots in Operation CASTLE resulted in an increase of the level of radioactive strontium by a factor of 20 or 30, as Dr. Libby fears, this will still be well below the tolerance level.
4. In view of the above facts and in view of the necessity from an operational standpoint of proceeding with present plans for Operation CASTLE, it was agreed that barge shots would not be eliminated.

(SIGNED)
K. E. Fields
Brigadier General, USA
Director of Military Application

MA:PCFins

MA:ARMSTRONG MA:FIELDS

MEDICINE, HEALTH & SAFETY 3-8 *Fins*

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BY AUTHORITY OF *Topic 203 C-11-5*

DATE *5/21/54*

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