

UNITED STATES ATOMIC ENERGY COMMISSION

Vol. Vila

In the Matter Of:

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J. ROBERT OPPENHEIMER

CLASSIFIED TECTIMONY OF DR. BETHEWAY

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MR. ROBB: Are you ready, Doctor?

DR. OPPENHEIMER: Yes, sir.

THE WITNESS: The question is whether three methods were discussed?

BY MR. ROBB:

Q Yes.

A I am not the best witness on this. I only recall two basic ways of determining it.

C Which were they?

A One would be by cloud analysis and sampling in which you use radiochemistry to determine the fragments that are there and their half lives. You can determine roughly the efficiency of the burnup of the material and things of this character. We had a program on to sample and in that way it was determined. That was Dr. Oppenheimer's chief role at that time in this field of sampling clouds.

- Q Mr. Dean, would that be called the nuclear method?
- A I am not a good witness on this. Yes, it involves both chemistry and it involves nuclear physics subject to correction at all times.
 - Q What was the other method that you recall?
- A The other kind of obvious method would be things like measuring the earth shock or sound saves, things of this character, as you do in recording an earthquake.
 - Q That is the seismic method.

- A Yes.
- Tas there a third method which was referred to as the sonic method?
 - A I would think they might try that, too.
 - Q Which method did Dr. Oppenheimer espouse?
- A I don't think he espoused any. I know the one we detected, it was the first method, and that is the one he was concerned with.
- Q Do you remember he opposed instituting the seismic and sonic methods in the future?
 - A I have no knowledge of this.
- Q Do you recall that he suggested that those methods be not adopted without further extensive research?
 - A I have no knowledge of this.
 - Q You have no knowledge of that at all?
- A No. I wouldn't ordinarily, because again he is sitting as a committee of advisors, you see, reporting to the Air Force, not to the Commission. The Commission had to follow it closely, but it was in that capacity that he acted in 1949, and subsequent occasions when the Russians exploded.

(Discussion off the record.)

MR. GRAY: I don't believe we can get anything in the record on the basis of his testimony on that. Is there anything else along this line?

MR. ROBB: Nothing further.

(End of classified portion of transcript.)