

parted for Paris on August 28. The above calls were arranged through the Foreign Office, for policy reasons.

The Embassy understands that Dr. Alexander was entirely satisfied with what he accomplished here, and that he believes that the Norwegians should be allowed time to work out their plans and to take advantage of the U.S. offer of further cooperation. There is no doubt but

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DOB memo
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See DOE Review Stamp

ACTION REQUESTED: The Embassy requests that it be furnished 12 more copies of the NAS-NRC reports mentioned above (both long and short versions), in addition to the copies requested in Embdes 65, August 1.

The Embassy also requests that, if possible, it be furnished the data analyses referred to in the Department's CA-7015 of March 12, and requested by the Embassy in Embdes 552 of March 26 and Embdes 719, June 8. These analyses were promised to the Norwegian Government several months ago.

For the Ambassador:

Hayden Raynor

Hayden Raynor
Counselor of Embassy

Enclosure:

- 1/ Translation of interview with Dr. Hvinden dated 8/16/56;
- 2/ Translation of interview with Dr. Møller dated 8/29/56.

Copy to Paris (for Mr. Bachhoefer)

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TRACES FROM ATOMIC EXPLOSIONS ARE BEING REGISTERED IN NORWAY.

Certain variations in air activity have recently been registered in Norway. These variations have occurred shortly after atomic explosions have taken place. The variations, however, have not exceeded what is usual under such circumstances, but they are absolutely measurable with the very sensitive instruments which we now have available, says Research Chief Toleif P. Hvinden of the Defense Research Institute to Telemark Arbeiderblad.

The particles live for years.

When a hydrogen bomb explodes it seems that radioactive particles are thrown all the way up into the stratosphere. The particles can stay there for years and are carried several times round the world with the air currents. After some time they fall to the ground together with precipitation or in the form of dust.

Spreading through many channels.

The degree of radioactivity left in these particles depends on their span of life. A great number have become inactive. Those which are still active might after some time find their way to human beings through water, soil, animals and plants, but for the present we have little knowledge of dissemination this way.

Dissemination of the radioactive dust takes place over very large areas. It is only under very special and unusual circumstances that the radioactive particle can fall down again so rapidly and in such concentrations that they can do any harm, says Mr. Hvinden.

The threat against humanity.

According to the British and the American reports on radioactive radiation and its effects, the present and foreseeable danger from external radioactive radiation is insignificant to human beings on the basis of the number of atomic explosions which have taken place each year.

The reports emphasize that excessive radiation leads to various detrimental effects with human beings. As regards genetic defects which may arise in future generations, we are still on too uncertain ground as we have too little material to build on.

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Accumulation in bone substance.

The most dangerous radioactive particles from an atomic explosion contain strontium 90. This isotope lodges itself in the bone substance of human beings, causing internal radiation. Strontium 90 is now accumulating in the bones of people, it is said in the American and the British reports. With the present number of atomic tests it is expected that this will not have detrimental effects, but with an increase in the number of tests every year this may be different.

With atomic explosions very little strontium 90 is formed. The isotope, however, has a very long life. The 50% reduction period is 28 years. This means that the radioactivity is reduced to half in the course of this time, said Mr. Hvinden.

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AS WELL AS RANDOM SAMPLES FROM VARIOUS AREAS, WE ARE AT ALL TIMES informed about radiation activity. We will continue with these measurements as long as radioactivity can be registered," said Director Møller.

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