

*Nuclear Liability*

(ii) Reports on scientific observations and experiments relevant to the effects of ionizing radiation upon man and his environment already under way or later undertaken by national scientific bodies or by authorities of national governments;

(b) To recommend uniform standards with respect to procedures for sample collection and instrumentation and radiation counting procedures to be used in analyses of samples;

(c) To compile and assemble in an integrated manner the various reports, on observed radiological levels;

(d) To review and collate national reports, evaluating each report to determine its usefulness for the purposes of the committee;

(e) To make yearly progress reports and to develop by July 1, 1968, or earlier if the assembled facts warrant, a summary of the reports received on radiation levels and radiation effects on man and his environment and indications of research projects which might require further study;

(f) To transmit from time to time, as it deems appropriate, the documents and evaluations referred to above to the Secretary-General for publication and dissemination to States Members of the United Nations or members of the specialized agencies.

There is no secrecy in this field. Oh, there may be secrecy about the emplacement of ABM's or of Soviet missiles and the rest, but world scientists are sharing information relating to radiation in Iowa and Irkutsk, Des Moines and Minsk, centres in the United States and Liverpool over in England, and centres all over the world, and we have provided our quota of this information.

From 1955 to the present day there has been an admirable degree of co-operation between members of this committee and, indeed, between all members of the 126-member United Nations organization on this subject. The speaker who has just preceded me mentioned Amchitka. Many people harbour the thought that testing underground is a safe form of testing. This is a complete fallacy. I quote from the report of the World Scientific Community issued by the United Nations. On page 14 of the report reference is made to radiation levels in 1969:

● (2:50 p.m.)

Temporarily increased surface-air activities have been observed from time to time. The composition of the radioactive material suggests that it has originated from underground explosions.

There is also concern, and rightly so, about continued United States nuclear testing at Amchitka. We should make our position very clear on this point. We should also make it crystal clear that we are not concerned with criticizing one ideology or another. We should be just as stern and critical when talking to the Soviet Union about continued

underground nuclear testing on Soviet territory. Such testing is a continuous threat to the whole world.

The report states that debris from nuclear tests in the atmosphere is still the major radioactive man-made contaminant of the environment. The report continues:

Small amounts of radioactive material have leaked from a few underground tests, and the crash of an aeroplane carrying nuclear weapons resulted in a localized contamination by plutonium-239 off the coast of northern Greenland in January 1968.

That instance did not result from an atmospheric test. We do not have to be concerned about the effects of radiation from peaceful uses of atomic energy.

What else did we learn from this discussion of radiation levels? We have learned that brain damage has resulted from radiation exposure in the case of unborn babies. As a result of this, safeguards to prevent exposure are increasingly being improved; nevertheless such radiation has done a great deal of damage and affected a great many lives.

What else have we learned from this report? I should like to make reference to paragraph 10 on page 5, which deals with a matter that relates not to atmospheric testing or underground military testing. The report reads:

That severe damage to the nervous system can be induced in man also is shown by a number of observations of children born to mothers irradiated for medical reasons during pregnancy. Doses are unknown but are believed to have been high. A number of cases of reduction of head size, often accompanied by severe mental retardation, have been reported among these children as a result of irradiation from the second through the sixth month of intra-uterine life. However, contrary to what animal experiments would lead one to expect, major structural changes of the nervous system have seldom been observed, perhaps because these would be incompatible with sufficiently long survival of the human embryo for the damage to be detected at birth.

This radiation resulted from the peaceful use of atomic energy, and that is why I suggest this is one of the most important bills to come before the House in years. The report continues:

In children, on the other hand, the evidence suggests that, at least with regard to the induction of malignancies, the nervous tissue might be about as susceptible as other tissues such as the thyroid and blood-forming tissues. It is, however, in the pre-natal period that the vulnerability of the nervous system is highest. There is clear evidence that, from the second to the sixth month of pre-natal life, doses from 50 rads onwards are associated with increases in mental retardation and microcephaly. Evidence on the effects of lower doses during this