

Declaration of the German Nuclear Physicists

The plans of the German Army of acquiring atomic weapons has caused deep concern to the undersigned nuclear physicists. Some of them have already communicated their concern to the appropriate members of the government. Today, the debate has become public, and the undersigned feel compelled to point out publicly certain facts known to the experts, but seemingly not sufficiently known to the public.

1. *Tactical atomic bombs have the same destructive effects as normal atomic bombs.* The designation "tactical" is used in order to express that they are to be used not only against human settlements, but also against troops in surface combat. Every single tactical atomic bomb or atomic grenade has similar effects as the first atomic bomb which destroyed Hiroshima. Since tactical atomic weapons are today available in large numbers, their destructive effect would be on the whole much larger. These bombs are designated as "small" only in comparison to the recently developed "Strategic" bombs and mainly to the hydrogen bombs.

2. *There is no limit known to the possibility of increasing the destructive effect on life and property of Strategic atomic weapons.* Today a tactical atomic bomb can destroy a small city; a hydrogen bomb can make uninhabitable a region the size of the industrial district of the Ruhr. The whole population of the German Federal Republic could be exterminated today by means of the spreading radioactivity of hydrogen bombs. We do not know any practical possibility to protect large populations from this danger.

We know that it is very difficult to draw political consequences from these facts. Since we are not politicians, one might deny us the right to judge these questions; however, our activity in pure science and its applications, which brings us into contact with many young people in this field, has bestowed upon us a responsibility for the possible consequences of this activity. This is why we cannot keep silent in these political matters. We support wholeheartedly the idea of freedom as represented today by the Western world against the ideas of communism. We do not deny that the mutual fear of the hydrogen bombs represents today an essential contribution to the maintenance of peace in the whole world and of freedom in a part of the world. However, we consider, in the long run, this way to maintain peace and freedom as completely unreliable and the danger in the case of its failure as deadly.

We do not feel competent to make concrete propositions for the policies of the great powers. We think that today a small country such as the Federal Republic can protect itself best and promote world peace by renouncing explicitly and voluntarily the possession of atomic weapons of any kind. Be that as it may, none of the undersigned would be ready in any way to take part in the production, the tests, or the application of atomic weapons.

At the same time, we emphasize the utmost importance of the peaceful application of atomic energy, which should be supported with all means, and we will participate in this task as we did before.

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EDITORS NOTE: Of the signatories of the above Statement, Born, Hahn, Heisenberg, and von Laue are Nobel prizewinners in physics. Hahn and Strassmann are the discoverers of uranium fission, which was the starting point for the development of atomic energy. Born and Paneth were refugees in England during the Hitler period, and have recently returned to Germany. Heisenberg and von Weizsäcker, among others, were among the most active scientists in Germany during the same period; Heisenberg, in particular, was one of the leaders of the German atomic energy project during the war.

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