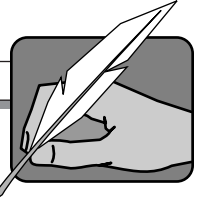


PRIMARY SOURCE ACTIVITY



Einstein's Letter to FDR

Scientists in the United States were aware that Germany was investigating ways to develop an atomic bomb. In August 1939 Einstein wrote to Roosevelt encouraging the United States to fund nuclear research. His position was based on the work of American physicists Leo Szilard and Enrico Fermi as well as French physicist M. Joliot.

The letter below was written a month before Germany invaded Poland. On December 6, 1941, Roosevelt decided to proceed with nuclear research based on Einstein's letter. The next day Pearl Harbor was bombed.

Sir:

Some recent work by E. Fermi and L. Szilard, which has been communicated to me in manuscript, leads me to expect that the element uranium may be turned into a new and important source of energy in the immediate future. Certain aspects of the situation which has arisen seem to call for watchfulness and, if necessary, quick action on the part of the Administration. I believe therefore that it is my duty to bring to your attention the following facts and recommendations:

In the course of the last four months it has been made probable—through the work of Joliot in France as well as Fermi and Szilard in America—that it may become possible to set up a nuclear chain reaction in a large mass of uranium, by which vast amounts of power and large quantities of new radium-like elements would be generated. Now it appears almost certain that this could be achieved in the immediate future.

This new phenomenon would also lead to the construction of bombs, and it is conceivable—though much less certain—that extremely powerful bombs of a new type may thus be constructed. A single bomb of this type, carried by boat or exploded in a port, might very well destroy the whole port together with some of the surrounding territory. . .

The United States has only very poor ores of uranium in moderate quantities. There is some good ore in Canada and the former Czechoslovakia, while the most important source of uranium is Belgian Congo.

In view of this situation you may think it desirable to have some permanent contact maintained between the Administration and the group of physicists working on chain reactions in America. One possible way of achieving this might be for you to entrust with this task a person who has your confidence and who could perhaps serve in an unofficial capacity. . .

I understand that Germany has actually stopped the sale of uranium from the Czechoslovakia mines which she has taken over. That she should have taken such early action might perhaps be understood on the ground that the son of the German Under-Secretary of State, von Weizsacker, is attached to the Kaiser-Wilhelm-Institut in Berlin, where some of the American work on uranium is now being repeated.

Yours very truly,
A. Einstein

QUESTIONS TO DISCUSS

1. What does Einstein believe will be the result of nuclear research? What natural resource is necessary for this research?
2. Why is Einstein concerned about Germany stopping the sale of uranium from Czechoslovakia?