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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

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Dear Chris:

I have just received a report from our General Advisory Committee on the potentialities of the centrifuge isotope separation development which is very disturbing. I am disturbed because this development appears to be a means of producing weapons grade Uranium-235 with equipment which is comparatively cheap, small in size and, therefore, impossible to find. It also requires relatively small amounts of electrical power for operation.

The General Advisory Committee reported to the Commissioners yesterday that their investigation reveals that a number of German centrifuge machines which would cost about \$1,000,000

They, furthermore, stated that these centrifuge machines would be small, could be easily dispersed and would require about 2,000 kilowatt of electric power for their operation (equivalent to the capacity of a medium size diesel plant).

The General Advisory Committee has recommended that the Commission intensify its work on centrifuge development. This work has been carried on by the University of Virginia and one or two industrial firms. They also suggest that we seek collaboration with the British, Germans and Dutch, all of whom are working in this area.

It is interesting that the basic centrifuge was developed by the same group of German scientists who were also taken into Russia after World War II and who worked at Sukhumi in the Caucasians for several years. They were released in 1951 or 1952 and it has been assumed that the Russians abandoned the centrifuge method in favor of the gaseous diffusion. For quantity production, gaseous diffusion



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produces a less expensive product where abundant, low cost power is available. However, where cost of production is not important as would be the case in a clandestine operation, it appears that the centrifuge in its present state of development offers a means of producing significant quantities of special nuclear materials for weapons purposes.

I call this possibility to your attention since I believe it must be seriously considered in connection with any proposals we might entertain for stopping the production of weapons material.

The conclusions of the General Advisory Committee as outlined above are to the effect that the centrifuge, in its present state of development, can produce greater quantities of Uranium-235 for less plant cost than indicated by prior studies made by the staff of the Commission.

Since I mentioned this subject to the President yesterday, I am sending a copy of this letter to General Goodpaster.

Sincerely yours,

(Signed) John A. McCone

John A. McCone

The Honorable Christian A. Herter
The Secretary of State
Washington, D. C.

cc: General Goodpaster



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