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MR. CHARLES JOHNSON

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## UNITED STATES ATOMIC ENERGY COMMISSION WASHINGTON

OFFICE OF THE CHAIRMAN

November 8, 1963

Dear Chuck,

Enclosed please find the letter that you requested, in order that the record might be clarified, explaining the nature of the nuclear research experiment to be conducted in a gold mine in Pretoria, South Africa. I trust the information is adequate and that the letter will serve the purpose you had in mind.

Cordially,

Howard C. Brown, Jr. Executive Assistant

to the Chairman

Mr. Charles Johnson
Office of the Special Assistant
to the President for National
Security Affairs
The White House

Enclosure



## UNITED STATES ATOMIC ENERGY COMMISSION

WASHINGTON 25, D.C.

November 8, 1963

Dear Mr. Johnson:

Airgram A-131, dated October 21, 1963, from the American Embassy in Pretoria, South Africa, a copy of which is attached, referred to South African newspaper reports on a nuclear research project which will be conducted in a gold mine in South Africa. The Case Institute of Technology will conduct the project under a research contract with the U. S. Atomic Energy Commission. The details contained in the airgram are accurate; however, I think you will be interested in the following additional information concerning the project.

The research to which the airgram refers does not, in any way, involve the use of nuclear explosives, but rather is a basic research project aimed at detecting cosmic ray neutrinos.

In order to achieve the most accurate results obtainable, this project must be conducted as far below the earth's surface as is possible so as to obtain shielding adequate to filter out other, more numerous cosmic ray radiations which are more easily stopped by materials in the earth's crust than are neutrinos. The South African mine which has been selected is deeper than any mine in the United States, and offers the most suitable set of conditions available under which the project might be conducted.

Sincerely yours,

Howard C. Brown, Jr. Executive Assistant to the Chairman

Mr. Charles Johnson Office of Special Assistant to the President for National Security Affairs The White House

Attachment: As stated

DEPARTMENT OF STATE FOR RM USE ONLY EUS A-131 UNCLASSIFIED NB DEPARTMENT OF STATE TO 24 October 1963 INFO AmConGen, JOHANNESBURG COM American Embassy, PRETORIA DATE: October 21, 1963 FROM South African Mine to be Used for U.S. Nuclear Experiments SUBJECT : REF South African newspapers have recently carried reports of an underground nuclear experiment to be conducted in a gold mine of the Witwatersrand area by the Case Institute of Technology of Cleveland, Ohio, in collaboration with the Nuclear Physics Research Unit of the University of the Witwatersrand (Johannesburg). According to Professor J.P.F. Sellschop, director of nuclear physics research at the University, the immediate aim of the experiment (scheduled to take place late next year) is to detect a certain type of fundamental nuclear particle -- the mu-meson -- produced by neutrinos in the rock surrounding the experimental site. For the information and interest of the Department there are enclosed two newspaper clippings from the Johannesburg Star concerning this project. These contain the only details available to the Embassy at this point. For the Ambassador: Theodore C. Nelson Second Secretary of Embassy As stated UNCLASSIFIED POR DEPT. USE ONLY DS- 323 V 10 Out Contents and Classification Approved by TCNelson red by JMLucas: id Oct. 21, 1963 erances: