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CO.12

[redacted]

ARGONNE NATIONAL LABORATORY
9700 South Cass Avenue
Argonne, Illinois 60440

CLASSIFICATION CANCELLED
DATE 2/28/69
For The Atomic Energy Commission
Jack H. Kahn
Chief, Declassification Branch

ANL-FF-769
5 April 1965
Program 9.2.9

This document consists of 1 pages.
No. 10 of 10 copies. Series A.

~~CLASSIFICATION CHANGED TO~~

~~DATE~~

~~Chief, Declassification Branch~~

Mr. K. G. Wasson
Coors Porcelain Company
Fuel Element Building
Golden, Colorado

Dear Mr. Wasson:

Under separate cover our Purchasing Department is requesting a quote for six fuel specimens. Except for composition, the specimens are to be identical to the pieces identified by requisition number 702881. The six specimens shall have the following composition:

UO_2:	48 $\pm$3 w/o
Gd_2O_3:	3.3 $\pm$0.2 w/o (i.e. 6.9 w/o of the total oxide)
W:	Remainder
C:	Less than 50 ppm

The fabrication of these specimens is to be identical to the fabrication of similar pieces made for Argonne National Laboratory. The gadolinium sesquioxide should be introduced with the uranium dioxide in the body preparation process. The desired structure for the oxides is a homogeneous solid solution. A 1700°C soak for four hours should give the desired structure.

As before, a minimum density of 95% of theoretical is desired. Theoretical density for the solid-solution oxides is calculated to be 10.67 gm/cc.

Very truly yours,

ORIGINAL SIGNED BY

William G. Tope

WGT/mgm
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