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JOB 884

contains information affecting the
United States within the mean-
ing of Title 18, U.S.C., Secs. 793
and 794, and the disclosure of which in any
manner is prohibited by law.

DN
RAB

Field Manager
Eniwetok Field Office
P.O. Box 5400
Albuquerque, New Mexico

19 October 1953

Subject: Time Required to Close Ports -
Stations 1341 and 1342

John Baker

Dear Sir:

As requested by your letter PG-2c- 3503 dated October 5,
1953 and J-6 letter J-20462 dated September 28, 1953, we
are submitting the following information on the above
subject:

BEST COPY AVAILABLE

The time interval from the instant of release to
the instant of contact with the sill has been
calculated using pendulum theory to be approx-
imately 0.4 seconds. This calculation neglects
the effect of friction, air resistance and possible
cushioning effect of entrapped air. It is believed
that the cushioning effect of the air is the most
important of these.

A very crude estimate of the cushioning effect is
obtained by applying Boyle's Law to the volume of
air contained in the bunker and between the door
leaf and the opening, with the door in the 45
degree position.

On this basis, compression of the air begins at
about 0.3 seconds after release, but the door
still closes within 0.5 seconds.

Accurate determination of the closing time will
be determined by field tests.

Very truly yours,

COLWES & HARVER, INC.

David L. Harver, Jr.
Chief Project Engineer

Stamp: DEPARTMENT OF COMMERCE, BUREAU OF INVESTIGATION, SINGH, AD Singh, 7/27/53, NAME, DATE

DLNjr: jp

- cc: P. W. Spain, AEC
- Robert W. Newman, J-Div., LAS
- Constr.-oper, DIV (2)
- C. L. A. Bockemuhl
- Project Engineer File
- Room (2)