H. L. Dietze

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David L. Narver. Jr.

Survey Requirements

April 23, 1953

The scope of this project has increased to where the survey requirements will be considerably above earlier estimates. This is true not only in the number of locations to be surveyed but in the accuracy of location and alignment. Due to the time element high priority is given to design surveys and before this work can be completed it is probable that the work load will be greatly increased by construction layout of structures, barge locations and Users requests such as the wave studies now in progress. The following information and recommendations are for your guidance in determining the man power and equipment required to meet this work load.

Precise alignment of pipe lines will be required at three locations: At Ursula, two pipe lines 3000 feet in length; at Tare, two pipe lines 5600 feet in length; at Charlie, twelve pipe lines 7500 feet in length. At these locations it will be advisable to establish precise controls during probably be in progress at all three locations at the same time.

Precise locations of barges in the ocean off Yoke and in the lagoon off the Fox group will require considerable survey time as ranges must be established and periodical location checks may be requested.

Instrumentation and/or test structures are planned islands as well as some being manual member of these

number of these stations will be considerably above the requirements as known at this time.

At Eniwetok, in addition to the work at Ursula, instrumentation will be required at other locations. Improvements at Fred and Elmer will require part time for a party.

Based on an evaluation of the scope and location of work as anticipated at this time a minimum survey organization of six parties (A man each) is recommended. The probable distribution is as follows:

party full time at Ursule berby part time at Illmer, Fred, etc.

Bikini

perty full time at harlie perty full time at lare parties located as required, one of which as we part time at Eniwetok

It may be difficult to maintain the six party strength due to the large number of contract completions in the next few months and the fact that some of the

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Survey Requirements

March 23, 1953

most valuable men have completed two or more contracts and may not rehire. The Personnel Department reports that men are in process for the outstanding chainmen requisitions and two more of these men should leave for the Jobsite by 15 May. Three party chiefs and three instrument men have been processed or are in process. These men may be available if requisitions are received. One of the party chiefs, Mr. Manley, has considerable supervisory experience and was being considered earlier for such a classification.

Special alignment equipment will be required for the pipe lines. Sketches of this equipment will be prepared by Hammond based on that used for alignment of the 203 stations for Operation Ivy. These items can be made up at the Jobsite or requisitioned through the Home Office. If additional equipment is required to cutfit the six parties it should be requisitioned immediately and in this regard if an additional transit is requisitioned it should be equipped with double vertical cross lairs as it may be possible to use such an instrument for alignment of the Ursula pipe lines. The two Wild T-2 Theodolites, now at the Jobsite, will be in use at the same time and for extended periods. If anything happens to one of them, important work may be delayed. To eliminate this possibility of delay requisitioning of a third Wild T-2 to be used as a spare can be justified, and we recommend that Jobsite requisition a third one. Purchase and delivery of the instrument to the Jobsite will probable take at least six weeks.

David L. Narver, Jr. Chief Project Engineer

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