

BMK:EU

5 April 1954

Honorable William F. Knowland

United States Senate

Dear Senator Knowland:

Further reference is made to your communication of 15 March 1954, transmitting a letter from Mr. Arthur Collins of the Collins Manufacturing Company, 2897 Chapman Street, Oakland 1, California, protesting what he considered discriminatory specifications issued by the Alaska District of the Corps of Engineers for the inspection of the welding on the pipeline which the Corps of Engineers is building from Haines to Fairbanks, Alaska. You will recall that Mr. Collins protested specifically against the elimination of the use of Cobalt 60 as a radioactive source in the proposed inspection.

In my interim reply of 18 March 1954, I promised that I would give you a complete report on the facts in this case as soon as I could obtain the necessary information from the District Engineer in Alaska, who is the officer of the Corps of Engineers responsible for the design, construction and inspection of the pipeline. The District Engineer's report has now been received.

Because of the highly specialized nature of the radiographic inspection of the Haines-Fairbanks pipeline, the District Engineer considered it essential that he employ a consultant possessing the broadest possible specialized experience in that field. After careful consideration, he selected Mr. A. G. Barkow of the Natural Gas Pipeline Company of America as consultant for the project. Mr. Barkow is secretary of the Joint American Petroleum Institute - American Gas Association Committee on Oil and Gas Pipeline Field Welding Practices, a member of the Radiographic Subcommittee, and of the Welding Subcommittee. It was this joint committee who prepared the American Petroleum Institute "Standard for Field Welding of Pipe Lines," referred to generally as API Std. 1104, which is the standard under which the Haines-Fairbanks pipeline is being built. Mr. Barkow's experience covers many years of materials inspection and metallurgical laboratory work for prominent industrial firms. His experience in radiographic inspection of metals dates back to 1930, making him one of the pioneers in this field. In the late thirties Mr. Barkow was employed by one of the largest American casualty companies as a welding

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metallurgical engineer, and has served for the last 11 years in his present position with the Natural Gas Pipeline Company of America. In addition to his participation in the preparation of API Std. 1104, he is the author of an authoritative treatise, "How to Interpret Radiographs of Pipeline Welding Defects," which appeared in the Oil and Gas Journal of 4 October 1951. I feel, therefore, that you will agree with the District Engineer's selection of Mr. Barkow as a recognized authority on welding and radiographic inspection.

The District Engineer's decision that Iridium 192 is the preferable radioactive source to be used in the inspection of this pipeline was based on Mr. Barkow's recommendation, which was in turn based upon Mr. Barkow's view from long experience that Iridium 192 was the only radioisotope available which would produce the film definition necessary to insure the superior results required on this job. This decision was made particularly in view of the expectation that a fine cracking condition in the welding was expected to be encountered because of climatic influences in that region, a factor which ruled out the use of radioactive sources other than those which, because of their longer wave lengths, would provide the maximum clarity and definition. This necessarily ruled out Cobalt 60, which has a very short wave length.

You will be interested to know that the District Engineer has received several expressions of affirmation of the superiority of Iridium 192 over Cobalt 60, both from prominent American industrial and engineering sources and also from the British Columbia Research Council. Under the circumstances, I believe you will agree that the District Engineer's decision was sound and in the best interest of the Government.

Of the eight bids received, four were for both X-ray and Iridium 192, two were for X-ray only, and two were for Iridium 192 only. The eight firms which submitted bids in this instance are representative of industry, and the low bid is considered to be favorable to the Government. The contract has been awarded to the low bidder. Incidentally, the low bid is based on the use of Iridium 192.

From the foregoing, I believe you will agree that the decisions of the District Engineer in securing consultant services and in devising the specifications to protect the best interests of the Government are supportable. I hope that the information furnished above will provide the basis for a suitable reply to your constituent, and thereby result in a better understanding of the actions taken by the Corps of Engineers to protect the Government's interests on this highly specialized project.

BRG:WJ

Honorable Willisa F. Knowland

Mr. Gates/71696/mde  
5 April 1954

In accordance with your request, the correspondence from the Collins Manufacturing Company is returned herewith.

Sincerely yours,

1 Incl  
Ltr fr Collins Mfg Co  
8 Mar 54 w/incl

DAVID N. TALLEY  
Brigadier General, USA  
Assistant Chief of Engineers  
for Military Construction

GRAMM

ZACKRISON

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