

Orr Affidavit

Exhibit 30

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DEPARTMENT OF
WATER RESOURCES

Excerpted pages of the “Report Relative To
Application of Idaho Power Company for
Preliminary Permit to Develop Upper Salmon
Falls Site on Snake River,” by U.S. Geological
Survey Hydraulic Engineer W.G. Hoyt
(July 1921)

D-100, 12-9-44

#3

REPORT RELATIVE TO APPLICATION OF
IDAHO POWER COMPANY
FOR A PRELIMINARY PERMIT TO DEVELOP
UPPER SALMON FALLS SITE ON
SNAKE RIVER, IDAHO.

Permit No. 19, Federal Power Commission
Idaho 26643

By
W. G. Hoyt
Hydraulic Engineer, U. S. Geol. Survey
July, 1921.

*See 50-
Spec # 26643-
(See) 26643*

*1295.
Snake River*

*1295
2716*

INTRODUCTION

This application was referred to Mr. C. G. Paulsen, District Engineer, U. S. Geol. Survey, at Boise, Idaho, on February 12, 1921, for an examination and report. Later it seemed desirable to secure additional data and this report has been delayed pending the collection thereof. The writer visited the site on June 4, 1921, accompanied by Mr. T. A. Purton, Office Engineer, Idaho Power Co., and during July in connection with general power investigations along Snake River, accomplished considerable work, aided by Warren Oakey, assistant engineer U. S. Geol. Survey, at the site and at smaller possible sites lying upstream from the site in question. Special attention was also given to the protests as registered by the Wendall Chamber of Commerce, Gooding Chamber of Commerce, and the County Commissioners of Gooding County. This report is being written prior to the holding of the public hearings relative to these protests. There is included such engineering data as will have a bearing on the protests and at the hearing, which will be held undoubtedly in October, 1921, additional facts will no doubt be brought out which should be considered in connection with this report. Considerable data as prepared for the report on the Twin Falls application (Project No. 18, Idaho 26642) has been included in this report, they being applicable to both cases.

Brief Description of Proposed Project.

The Idaho Power Co. state that they contemplate the construction of a concrete dam 8 feet high and about 1,000 feet long across Snake River at the head of Upper Salmon Falls, running from a point approximately N.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ to the S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ in sec.2, T. 8 S., R. 13 E., B. M.. Water to be diverted into a canal on the south bank and carried in this canal a distance of about 8,000 feet to proposed power house in probably the N.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$, sec. 3, T. 8 S., R. 13 E.. Elevation of the water at the head of the falls to be approximately 2885 feet above sea level; elevation of water at the foot of the falls, between 2804 and 2805 feet, which would give a gross head on the wheels of about 80 feet. Blue print exhibit E submitted with the application shows also a canal on the north bank extending from the north end of the proposed dam to a point of use in about Lot 3, sec.34, T. 7 S., R. 13 E., B. M., elevation of tail water at the proposed power house not given. Energy generated will be distributed through the general transmission system of the company, a new transmission line to be constructed, running from the proposed plant to their existing Lower Salmon Falls plant, a distance of about 5 $\frac{1}{2}$ miles.

Description of the Water Shed.

Very briefly, Snake River may be described as having its source near the continental divide in the southern part of

Yellowstone Park. It flows southerly through Jackson Lake, which is now used as a storage reservoir, continues 125 miles south and southwest to a point in T. 3 S., R. 46 E., where it enters Idaho, flows northwest 71 miles to the junction with Henrys Fork between St. Anthony and St. Anthony Falls, turns southwest 100 miles and then generally west and northwest 270 miles to the boundary between Oregon and Idaho, 50 miles south of Weiser. The river then turns north and for about 200 miles forms the boundary between Idaho and Oregon, and for 30 miles the boundary between Idaho and Washington. At Lewiston it joins Clearwater River, and flows west 120 miles to its confluence with Columbia River. The total drainage area is approximately 108,000 square miles. In general the river may be divided into two main sections. First, that portion upstream from Milner, and second, the portion downstream from Milner. In the portion of the river upstream from Milner the use of water for irrigation will predominate over the power use, while in the section downstream the use of water for power purposes will undoubtedly predominate, since the larger portion of the land adjacent to the river is at such an elevation that it cannot feasibly be irrigated by water pumped or diverted below the Milner dam.

Description of the Site.

Beginning at Milner, or perhaps more properly, at American Falls, Snake River begins cutting through successive layers of lava which go to make up the Snake River plains.
