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BURLEY IRRIGATION DISTRICT

ANNUAL PROJECT HISTORY

REPORT

OF

GENERAL OPERATION

SOUTH SIDE PUMPING DIVISION

MINIDOKA PROJECT

IDAHO

Board of Directors

Haven Leigh, Pres.

W. L. Manning	Victor Smith
Geo. A. Durfee	J. L. Morgan

Hugh D. Crawford, Manager - Engineer
Geo. W. Lyle, Secretary - Treasurer
S. T. Lowe, Attorney

VOLUME 2

CALENDAR YEAR, 1927

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- June 9 - Pumps running at full capacity.
- * June 14 - Sixth Unit of Minidoka Power plant put on ~~line for the first time~~ capacity.
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- June 30 - Second and last installment of 1926 construction charge paid in full to the Government \$47,990.89.
- July 11 - Board met in conference with Senator Borah and Addison T. Smith relative to program of enlargement of canal and pumping system.
- July 19 - Hottest day of the year 99 degrees.
- August 13- Board made a trip of inspection over the system.
- August 26- Board held a conference with Director of Reclamation Economics Geo C. Kreutzer, his assistants Messrs. Hayden and Johnston, and Superintendent E. B. Darlington all of the Bureau of Reclamation and W. J. Martin of colonization department of the Union Pacific Railway.
- September 12- Board made a trip of inspection over seeped areas on the project and inspected drainage sites.
- September 28- Board attended meeting of Minidoka Reclamation Association called at American Falls for the purpose of inducing the Secretary of the Interior to proceed with the construction of the American Falls power plant.
- October 4- Board set 1928 construction levy on consenting lands @ \$2.60 per acre.
Board approved securities put up by banks as security for deposits.
- October 13- Board approved a resolution authorizing the Bureau of Reclamation to install pumps and drainage canals to drain seeped lands and increase the water supply.
- November 2 - Pumping stopped for the year .
- December 1 - Non-Consenters 1927 construction charge paid to Government in full \$16,511.13.
- December 13- Annual election of directors held. Messrs. F. W. Cater and J. G. Wordstrom elected to succeed Geo. A. Burfee and Victor Smith respectively. Question of keeping district office at Burley also presented to electors who approved its continuance as at present.
- December 31 - First installment 1927 construction charge paid to the Government in full \$ 47,990.89.

* on the night of the 14th of June by power from the new 6th unit of the Minidoka Power plant which was then operated for the first time.

Interruption to pumping service due to power troubles were very few. At the first lift station the pumps were off line only once from power trouble from May 27 to September 13. This interruption came on July 24th, and made one run of 58 days and one run of 51 days without interruption. This is an unusually good record for this station.

Surveys and estimates were made by the engineers of the Bureau of Reclamation for three small pumping plants which are to pump from drains to increase the water supply. Several miles of drains will be dug to develop water and will incidentally reclaim a considerable area of land now injured by seepage. One of these pumps will be located in the E $\frac{1}{2}$ NE $\frac{1}{4}$, Sec. 27 T. 10 S. R. 24 E. A second pump will be installed in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 8 T. 11 S. R. 24 E. The third pump will be placed in the W $\frac{1}{2}$ SW $\frac{1}{4}$ Sec. 34 T. 10 S. R. 23 E.

The first and third mentioned will pump water into the "G" Canal while the second will discharge into the H-12 lateral. It is estimated that the three pumps may increase the water supply by 15 S. F. at maximum discharge.

The cost of drains and pumps will be paid by the Bureau of Reclamation from accrued power credits of the Burley Irrigation District. The work of installing the pumps and building the drains will be done during the season of 1928.

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DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

ANNUAL PROJECT HISTORY
REPORT
of
CONSTRUCTION
and
OPERATION AND MAINTENANCE

MINIDOKA PROJECT

IDAHO

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CALENDAR YEAR, 1927.

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installation. E. H. Smith, Electrical Foreman, was in charge of switch yard steel work and all electrical work. An erecting foreman furnished by the Newport News Shipbuilding and Dry Dock Co., was in charge of turbine installation. An average force of 35 men was employed during January and February, 35 men during March and April and a smaller force during May and June. The generating unit was placed in regular service on June 16th and all of the work completed by the end of June.

The sixth generating unit is installed in the bay of the original power house building that was originally occupied by two water wheel driven exciters. New motor-driven exciters had been installed and the old exciter machinery removed previous to January 1, 1927.

The principal features of the 1927 work were as follows:

Hauling - All of the heavy machinery was

hauled at Acoquia because the road from Acoquia to the power plant is graveled and is better for winter hauling

than the road from Minidoka to the power plant. The

largest piece to be handled weighed 15 tons. A 15-ton

stiff-leg derrick was installed at Acoquia for

hoisting, and a second 15-ton derrick at Minidoka power

house for unloading and placing machinery in the power

house. The latter derrick was installed as permanent

equipment, being so located at the north end of the plant as

to be convenient for handling transformers from the switch yard and

for moving auxiliary machinery into and out of the plant through a

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power house building in connection with the sixth unit installation. A battery room was provided on the turbine floor; provision was made for exciters in the second bay on the generator floor, and two roof ventilators of larger capacity were installed. A new doorway was cut in the

~~Power house~~ and provided with a steel door.

A new telephone or dispatcher's room was built on the gallery floor. This room was built of hollow tile and provided with double glass to render noise from the plant.

Testing of Unit - A test of the turbine for power output was made on July 15, 1927. This test indicated that the output was approximately 300 horse power below guarantee. During August, Mr. F. A. Kepler of the contractor's organization conducted additional tests.

A new turbine runner was manufactured by the contractor and was installed during January, 1928. A test of the unit on February 10, 1928 indicated that 300 horsepower output had been secured by the installation of the runner and that the turbine fulfilled the contract guarantee for output.

Cost - The total cost of the sixth unit installation and equipment is \$177,774.04. The estimated cost of the next unit is \$100,000. Moreover, there were several items of expense that were not contemplated when the contract was made.

... were several items of expense
not completed when the work was undertaken
an additional switchyard bay and new roof ventilators.
Transmission Line Construction - During September and
an additional transmission circuit was built from

Received Time Sep. 22. 3:29PM.

CHAPTER III (Continued) - POWER SYSTEM OPERATION AND
MAINTENANCE. By C. F. Gleason.

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Project power requirements for the year were supplied entirely from the Minidoka power plant except for 3 months in the early part of the irrigation season. The American Falls plants were operated during May and June and during July. A small amount of power was received from the Idaho Power Company in exchange for the use of power water at American Falls.

Installation of the sixth generating unit at Minidoka was completed during June and made it possible to take care of power requirements thereafter from the Minidoka plant.

Installation of the sixth unit makes the practical output of the plant 12,000 kilowatts total at the ordinary maximum

load that is available. Reduction of head due to

lowering of Lake Walcott for irrigation purposes reduces

output of the plant approximately 300 kilowatts for

periods that the lake is lowered. The maximum demand or

load carried during the season was 9,600 kilowatts.

Operation of the South Side pumping stations was assumed

by the Irrigation District on March 1, 1927. Pump

operation remained the same as for 1926 - no further alter-

ations being made. The maximum power demand

was 7,400 kilowatts and the year's energy

was 26,125,000 kilowatt-hours. This was a slight

increase over the previous year due to a smaller demand for