MASTER

Quarterly Project Progress Report, Jan-Mar 1981

Contract DE-AC21-80 MC14603 ✓

Prepared for

U. S. Dept. of Energy
Morgantown Energy Technology Center
Morgantown, West Virginia

By

Conspray Construction Systems, Inc.
Santa Ana, California

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Mr. Robert L. Gall
U. S. Department of Energy
Morgantown Energy Technology Center
P. O. Box 880
Morgantown, WV 26505

Re: Contract DE-AC21-80 MC14603

Dear Mr. Gall:

Enclosed is our report of progress made during the Jan-Mar 1981 quarter.

The assembly of the test loop has commenced, and we should be able to pressure test the system during the next quarter.

Enclosed are photos showing the site, the feeder installation, and other details of the equipment.

Yours,

Douglas D. Peterson

DDP:im

Enclosures

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Current Period Objectives

For the quarter ended March 31, 1981, the project goals were to complete some minor engineering details on the test loop, transfer of the coal feeder from the factory to the test site, and to assemble the test loop components. Additionally, the data gathering and processing system was to have been finalized and selected. The structural work at the test site included the electrical and mechanical preparation for the equipment installation.

Accomplishments

All engineering details on the test loop have now been completed, and an Apple II computer selected for the information monitoring and data acquisition. A Versatyme process controller monitors and controls the feeder operation. The Apple monitors all the relevant test loop functions and test parameters, and also allows the operator to manually input such additional test information as he deems relevant. The Apple computer is interfaced with an off-site time share computer which will provide storage for the information gathered during the test.

The Versatyme has been programmed to control the feeder and to monitor the machine's functions so as to shut down operations in the event conditions become unsafe. The programming of the Apple is well under way and appears to have more than adequate power to deal with the test operation.

The feeder was moved from the factory and installed at the test site in late March. By the end of the month, the live bottom hoppers had been installed on the feeder and the cross feed conveyor from the bucket elevator to the top hopper installed. A work platform at the top of the test loop and work stands around the feeder will be fabricated.

During the quarter, the pressure vessels for the test loop and the housings for the Conspray valves were received. It

should be possible to begin assembly of the pressure side of the test loop early in the next quarter.

The local electrical utility has completed their work required for the additional power. With the feeder and hopper installation, an electrical contractor may now begin his tasks of wiring up the test loop components.

The graphic display panel for controlling the feeder and loop components was laid out, the mylar overlay received, and the panel and components purchased and wired. Once the electrical contractor has completed his conduit runs, we will be able to wire in this control panel. The panel allows for control of all the equipment from a central location, with all components depicted and indicator lights showing states of operation, valve position, and so forth.

The belt conveyor for transporting coal from the discharge of the pressure vessels to the bucket elevator was installed in the pit. The bucket elevator was received and partially installed. Once the electrical contractor has completed wiring, the bucket belt can be installed.

Subsequent Period Objectives

The April thru June quarter goals include the completion of the coal storage bunkers, the electrical wiring and nitrogen piping, and the interface of all control and data processing equipment. The high pressure side of the test loop, the pressure vessels, Conspray valves and commercial valves, and associated piping and wiring, should be installed and ready for pressure testing.

The data processing system will be completed and tested. The testing equipment for coal sampling, sewing and moisture testing will be specified and ordered. Samples of the various types and sizes of coal will be procured. The detailed test plan should be ready for approval.

The liquid nitrogen tank, tube trailer, and associated piping should be in place.

-1980- COAL FEEDER
PROGRAM SCHEDULE, MILESTONE & STATUS -1981-----1982

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