

PD-KAF207

FINAL REPORT  
FOR  
GUYANA RICE MODERNIZATION PROJECT  
GUYANA RICE BOARD  
GEORGETOWN, GUYANA  
USAID LOAN NO. 504-L-008

PREPARED  
BY  
BLACK & VEATCH INTERNATIONAL

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## History of Project

In 1967, the Government of Guyana initiated a program to upgrade the quality of its rice and to decrease losses through spoilage, rodents, insects, theft, etc. In June, 1967 the government negotiated a contract for a feasibility study with a joint venture of two U.S. firms, Checchi and Company together with Rhodes Technology Corporation. The study was completed in January, 1968 and recommended that 13 combination paddy/rice storage centers be constructed throughout Guyana.

On 11 March, 1969 a loan agreement was signed between the United States Agency for International Development (USAID) and the Government of Guyana represented by the Guyana Rice Corporation and later by the Guyana Rice Board. The loan provided U.S. \$12.9 million to finance the foreign exchange portion of funds required to design and construct six paddy/rice receiving, drying and storage facilities. On 15 May, 1968 Rhodes Technology Corporation (RTC) signed a design contract with the Government of Guyana to prepare preliminary design drawings, specifications and contract documents as well as to provide construction supervision. In October, 1968 RTC stated it did not wish to proceed on the engineering contract beyond the completion of the preliminary design and specifications, so that one of its affiliate companies, Pemar International, could bid on the contract for the final design, supply of equipment and construction of the six centers.

Nance Engineering Company replaced RTC and became the engineering consultant on 6 May, 1969. Following a prequalification procedure in early 1969, bid documents were mailed to the prequalified contractors in June, 1969. A pre-bid conference was held in Georgetown on August 11 and the tenders were opened on 21 November, 1969.

The low bid was submitted by Pemar International, and on 19 March, 1970 Pemar signed a contract with the Government of Guyana in the amount of U.S. \$7,371,000 and G\$1,638,000 for a total of U.S. \$8,190,000. The contract called for the completion of the installations at the first two sites, Anna Regina and MARDS within 500 calendar days of issuance of the Notice to Proceed. Work at Wakenaam and Lot 66 was to be completed within 700 calendar days and work at Leguan and Rumzight was to be completed within 900 calendar days of issuance of the Notice to Proceed.

The Notice to Proceed was issued on 8 October, 1970. Change Order No. 2 signed 2 September, 1970 revised the site locations and the contract duration as follows:

<u>Site</u>	<u>Completion Time From Notice to Proceed</u>
Anna Regina & MARDS	500 days
Rumzight & Wakenaam	700 days
Somerset Berks & Black Bush Polder	900 days

In November, 1970 the engineer issued a hold order on related work to milled rice storage installations at the six sites as it was found to be advantageous to the Guyana Rice Board (GRB) to eliminate the milled rice storage originally designated to be constructed at the six storage centers and to centralize the storage adjacent to the Rice Marketing Board in Georgetown.

During May of 1970, due to financial difficulties, Nance Engineering Company withdrew, on its own initiative, as the engineering consultant. Nance's staff, headed by R.D. Mitchell, who was thoroughly familiar with the project since he'd worked in Guyana for RTC during the feasibility study and on the Rhodes design contract, and had subsequently been employed as the senior Nance representative in Guyana for the period during which Nance was the engineering consultant, became the interim engineering consultant pending approval of a new contract by USAID.

On 1 December, 1970 and before any work was commenced in Guyana by Pemar International, Weitz-Hettelsater Engineers was appointed engineering consultant to replace Mitchell, who had been serving in the interim capacity after Nance withdrew.

Pemar International's Construction Manager arrived in Georgetown on 15 April and opened their Georgetown office on 15 June, 1971. The established starting dates at three of the first four sites as per contract or as altered by Change Order No. 2 to the contract were as follows:

<u>Site</u>	<u>Starting Date</u>
Anna Regina	5 July, 1971
MARDS	5 July, 1971
Rumzight	20 February, 1972

At Wakenaam the starting date for erection was established as 15 May, 1972 due to unavoidable delays in completing the concrete foundations under Stage 2 which covered the civil works carried out by Guyanese contractors. Somerset Berks and Black Bush Polder were to be handed over to the contractor on 7 September, 1971. However, the engineer did not establish the start date at the respective sites until 9 October and 20 October, 1972.

Work at Anna Regina, MARDS, Rumzight and Wakenaam commenced within a reasonable number of days of scheduled starting dates. However, Pemar never began work at Somerset Berks or Black Bush Polder, although the civil works at the two sites were completed prior to the above set forth dates and the sites were made available to Pemar.

Pemar's progress was slow over the succeeding months and on 23 May, 1973 Pemar issued a letter to the GRB stating that they were withdrawing from the contract. At that time, none of the first four sites had been completed to the satisfaction of the Engineer and no certificates of beneficial occupancy had been issued. The erection work at Somerset Berks and Black Bush Polder had not been commenced. On 6 June, the GRB officially terminated the original Pemar contract in writing.

A number of meetings were held between representatives of Pemar, the GRB and the Engineer in June, 1973. A new contract was signed between Pemar and the GRB on 27, June, 1973 whereby Pemar would complete the first four sites to a degree that it would permit the GRB to receive the fall paddy crop. The term referred to in the contract was to bring the four sites to a state of "Substantial Mechanical Completion". For this effort, Pemar was to receive an additional U.S. \$400,000 and both parties reserved the right to make claims under the terms of the original contract. The Engineer recommended accepting the four original sites as being substantially mechanically complete on the following dates:

Anna Regina	18 September, 1973
MARDS	27 August, 1973
Rumzight	27 September, 1973
Wakenaam	28 September, 1973

The Supplemental Agreement also provided for Pemar and GRB to negotiate continuing on to complete a remaining two sites at Somerset Berks and Black Bush Polder. However, no agreement was ever reached and Pemar International closed their offices and departed from Guyana in early October, 1973 without ever commencing erection work at Somerset Berks or Black Bush Polder sites. A number of deficiencies were noted at the first four sites including elimination of bin leaks into the bolted steel tanks and bringing the paddy cleaners up to the specified standards established in the specifications. In all, Pemar received a total of U.S. \$ 5,341,765 and G\$ 1,050,234 as payment for their project services.

Weitz-Hettelsater Engineers was sold in December, 1972. Inasmuch as Pemar and Weitz-Hettelsater were then controlled by the same holding company, it was agreed by Amendment No. 4 to the engineering contract that the former owner of Weitz-Hettelsater Engineers, the Weitz Company Incorporated, would regain the engineering supervision of the erection work. This amendment was signed on 2 January, 1973. The engineering continued under the Weitz Company's direction until 1 October, 1974, when the contract was assigned to Black & Veatch International (BVI), a wholly-owned subsidiary company of Black & Veatch. BVI continued to provide engineering services to the project with field representation until March, 1977 and then through periodic site visits until 31 October, 1977.

Following departure of Pemar from Guyana, the GRB became their own contractor. They completed erection with procurement assistance from the Engineer, at Black Bush Polder in October, 1975 and neared completion on Somerset Berks in October, 1977.

A number of attempts were initiated to have Pemar construct the milled rice storage facility in Georgetown through an extra work order in their contract. This facility was to replace the milled rice storage facilities which were originally to be constructed at the six paddy receiving centers but was placed on hold order under the Pemar contract in November, 1970. No agreement was ever reached with Pemar to supply and erect the equipment for the facility. The civil work contracted to the Transport and Harbors Department was completed in January of 1973.

In early 1974, the Engineer proceeded to make a detailed inventory of all the equipment delivered by Pemar for erection at Black Bush Polder and Somerset Berks. Lists of missing materials were developed and the GRB received tenders and placed orders for the missing items with the Engineer's assistance.

Eight of the 24 required milled rice bins had been delivered by Pemar for erection at Anna Regina and MARDS prior to the issuance of the hold order on the milled rice equipment. These were erected at the Georgetown milled rice facility starting in July, 1974 by GRB crews. Following completion of the Engineer's design of the Milled Rice Facility, tenders were called and supply contracts were awarded for the supply of equipment for the facility as per USAID procurement guidelines. The GRB crews carried out the erection and installation of the equipment and materials. By October, 1977 the facility was completed to such a stage that rice could be stored in the facility; a list of items which remain to be completed is included as part of this report.

### GEORGETOWN MILLED RICE FACILITY

In early August 1977, a serious fire destroyed all adjacent warehouse and bagging facilities. Four tanks nearest the fire were damaged including structural damage to the silo roof cover support steel. A large quantity of electrical supplies including wire, inter-communication system, connectors, tools were all destroyed. The Guyana Rice Board has been able to get all top and bottom of silo conveyors in service on manual control, to have the facility in service for receiving and storing rice in Rows "A" and "B". Row "C" can be used except for the last four silos. A temporary spout has been installed from conveyors 230 and 231 to a bagging hopper. The new bagging scale and sewing machine is in service.

Principal items to complete at this facility is the following:

- 1) Intercommunication system.
- 2) Complete the installation of lighting fixtures
- 3) Install personnel elevator enclosure
- 4) Complete the lower level spouting and transition pieces to five elevators. Install all elevator drives.
- 5) Install truck scale dial head
- 6) Install truck dumper electrical starter.
- 7) Provide electrical power to the overhead crane.
- 8) Complete the control wiring to the multiplex electrical system.

### SOMERSET-BERKS

On September 30, 1977 a joint site inspection by personnel of BVI and G.R.B. was conducted. The site is essentially complete except for minor items. Two of three dryers are in service and the third is expected to be in service in two weeks. The G.R.B. accepted the facility for beneficial occupancy.

The following items require completion:

- 1) Handrails and lights on Row "A"
- 2) Intercommunication system
- 3) Plant air compressor and piping
- 4) Headhouse scale head
- 5) No. 3 Dryer spouting and fire controls
- 6) Completion and final check of the conveyor electrical inter-lock system.
- 7) Area paving.