

February 6, 1984

PD-RAO-222

37273

LOS ANGELES: SCHOOL OF PUBLIC HEALTH

To: Charlotte G. Neumann, M.D., M.P.H.

From: G. W. Gardner, Ph.D. *GWA/GK*

RE: TRIP REPORT FOR JANUARY 9, 1984 - January 31, 1984

This visit to Kenya had three (3) main objectives:

- (1) To install a new generator (3.5KW) at the Kararumo Field Lab and couple it to the MMC.
- (2) To check out the Beckman MMC and verify RMR data collection and procedures, and
- (3) To train a number of personnel on the use, care, and maintenance of the MMC.

Although the generator was airfreighted (Pan Am) on January 7, 1984, before I left for Kenya on January 9, 1984, it did not arrive in Nairobi until January 23, 1984 which marks the second occasion Pan Am has failed to get equipment to Kenya in time despite the extremely high costs we pay for this inefficiency.

The 2KW generator that was loaned to the Kararumo Lab by the University of Nairobi, Department of Physiology was borderline for the operation of the MMC and when checked by me on January 17, 1984, was not capable of providing adequate power. The MMC was therefore brought back to the Embu lab where on-line electrical power is available, and the testing procedures and training of personnel took place there while I waited for the new generator. When the latter did arrive in the field, we immediately returned the MMC to Kararumo and I spent the last two days check-measuring with Charles, Meke and Julius on the combined generator/MMC procedures. The data collected during this training was reliable and valid, although the tendency for uninitiated subjects to hyperventilate with the mask on or mouthpiece and noseclip on will need to be monitored carefully.

One major problem overcome during my visit was the matter of calibrating gases. Originally, my Kenyan counterparts for RMR - Professor Thairu and Mr. Mukeshi, had indicated calibrating gases were available in Kenya but this turned out not to be the case. Although East Africa Oxygen Co. could roughly mix the required proportions of oxygen, carbon dioxide and nitrogen, they could not guarantee the accuracy as required for metabolic measurements. This in itself might not have been a problem if any of the five mass spectrophotometers in Nairobi had been operational but this was not the case. Fortunately, enough of the original cal gases provided by Beckman were available in Nairobi, and with a loan of some other cal gases from the blood gas lab at the hospital room checking was possible so that there is presently a relatively adequate supply of cal gases available for the MMC - this should be checked however at regular intervals against gases provided by Beckman specifically for the MMC ranges.

On my return to the USA, I also visited with Beckman, Geneva to review the present Service contract and to check on the matter of supplies for the MMC - see attachments.

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LOS ANGELES: SCHOOL OF PUBLIC HEALTH

To: Charlotte G. Neumann, M.D., M.P.H.

From: G. W. Gardner, Ph.D. *G.W.G.*

RE: SUMMARY OF MEETING WITH MR. PETER HERTZ, SERVICE MANAGER,
BECKMAN, GENEVA, JANUARY 30, 1984

Mr. Hertz showed me the standard Beckman Service Contract with two (2) changes. One change he initialed and one change I agreed to.

These were:

The Standard Service Contract for the MMC is \$9,800 and we were given a price of \$7,500 presumably because we were purchasing three units.

In lieu of the reduced price Mr. Hertz did not feel the conditions of the contract could be fully met. These being:

- (1) The contract provides for four maintenance visits per year. Operator assistance to be given during such visits.

I agreed with Mr. Hertz that three (3) and not four visits would be acceptable.
- (2) Emergency and incidental repair. Labor and parts used for instrument repair to be free of charge.
- (3) All travel expenses and Specialist back-up from Geneva if required, free of charge.
- (4) Emergency service under the contract is restricted to genuine instrument faults or breakdown. Calls for adjustment normally carried out by the operator, or in those cases where the instrument was operated contrary to the instruction manual are limited.
- (5) Consumable supplies are excluded from the contract.

Mr. Hertz presently has a Mr. Lobo under contract to Beckman for maintaining ultra centrifuges in Nairobi. He will try to have Mr. Lobo trained for service work on the MMC.

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To get a serviceman to Kenya on an emergency basis will normally require at least one week. The nearest personnel are in Dubai and for travel arrangements etc. one week seems a reasonable time. We also need to establish financial channels for ordering supplies and parts from the Geneva office. Swiss Air operates almost daily to Kenya.

Mr. Hertz also recommended we purchase a surge voltage regulator of a type he regularly installs with hospital equipment. The cost quoted was about 1000 Swiss Francs. I also provided Mr. Hertz with the address of Professor N. Bwibo for getting supplies and parts to the field without paying the duty taxes.

GWG:dje