

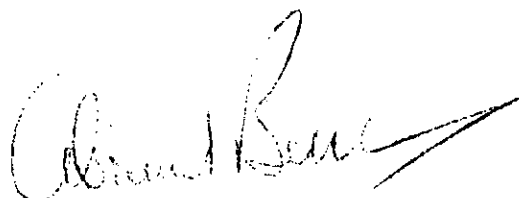
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
15 - 16 November, 1962.

Enclosed herewith are the Minutes and Supporting Documents
of the Second Meeting of the Directing Council held at the
Laboratory in Dacca, East Pakistan on 15-16 November, 1962.



Abram S. Benenson, M.D.
Secretary of the
Directing Council.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Dacca, East Pakistan.

MINUTES

The Second Meeting of The Directing Council of the Pakistan-SEATO Cholera Research Laboratory was called for the 15th/16th November, 1962.

The Members of the Council who had been designated were:-

*Dr. Lewis H. Hoyle	-	Representative of the Government of the United States of America and Acting Chairman.
Dr. D.J.M. MacKenzie	-	Permanent Representative of the Government of the United Kingdom.
Dr. Z.A. Choudhuri	-	Representative of the Government of Pakistan.
Mr. George E. Aurell	-	Representing the Secretary General of SEATO.
Dr. Ralph Knutti	-	Representing the Director of the National Institutes of Health.
Dr. Abram S. Benenson	-	Director of the Pakistan-Seato Cholera Research Laboratory.

*Dr. Hoyle was prevented by urgent business from attending;
Dr. Jean F. Rogier was designated on 16th November to represent the Government of the United States.

OTHERS PRESENT:-

Dr. Abdul Wahed	-	Pakistani Member of the Technical Committee, Pakistan-SEATO Cholera Research Laboratory and ex-Director of Health Services and ex-Dean of Dacca Medical College,
Dr. K.A. Monsur	-	Director of the Institute of Public Health, Government of Pakistan and Consultant to the Pakistan-SEATO Cholera Research Laboratory.
Dr. Jean F. Rogier	-	Provincial Public Health Physician, USAID, Dacca.
Dr. Joe L. Stockard	-	Deputy Director of the Pakistan-SEATO Cholera Research Laboratory.
Dr. Robert S. Gordon	-	Scientific Director of the Pakistan-SEATO Cholera Research Laboratory.
Dr. Ben I Davies	-	Chief, Bacteriology Section, Pakistan-SEATO Cholera Research Laboratory.
Mr. Robert S. Townsend	-	Executive Officer, Pak-SEATO Cholera Research Lab.
Mr. M. R. Bashir	-	Acting Administrative Officer, Pak-SEATO Cholera Research Lab.
Mr. Edgar L. Owens (on 16th November)	-	Assistant Provincial Director, Development and Planning, USAID/ Dacca.
Mr. James S. Cassanos (on 16th November)	-	Sanitary Engineer, USAID/ Dacca.

1. The meeting was called to order at 10.45 by the Director of the Cholera Research Laboratory. Dr. Knutti, Dr. MacKenzie and Dr. Benenson were the only members of the Council present. In the absence of a quorum, Dr. Knutti served as temporary Chairman during a brief and informal discussion of the Report of the Technical Committee, document DC 2/1. The Director reported that subsequent action taken since that time include arrangements made by Dr. Michael Flynn for Mr. A.A.J. Crispe of the Sydney Metropolitan Water, Sewerage and Drainage Board to spend three to four weeks with the Water Biology Section of the Cholera Research Laboratory, beginning on 7th January, 1963, to review the operation of that section. Dr. Robert Black has advised that the two anthropologists mentioned in document DC 2/1 are interested in the proposal in Para 5 of that Report. It is hoped that they will be available to come to East Pakistan some time after mid-1963. Arrangements have been made for Dr. Davies and one of the Laboratory veterinarians to visit Kuala Lumpur and Bangkok to review the animal care facilities there with a view to expanding the Cholera Research Laboratory colony.

2. The Acting Chairman called on Dr. Gordon, the Scientific Director of the Cholera Research Laboratory, to present the Director's Scientific Report.

3. During this presentation Mr. George Aurell arrived constituting a quorum; with the arrival of Dr. Choudhuri, representing the Government of Pakistan, the Council proceeded to Item 1 of the Agenda. Dr. D.J.M. MacKenzie was elected the Chairman and Dr. Choudhuri, the Vice Chairman. It was decided that Dr. Benenson as ex-officio Secretary of the Directing Council would also function as Rapporteur. The minutes of the First Meeting of the Directing Council were confirmed.

4. Document DC 2/1, the Report of the Technical Committee and DC 2/2, the Director's Scientific Report covering Agenda Items 2 and 3 were then considered as one and adopted.

5. The laboratory plant, facilities and research operations were then inspected, (Agenda Item 4).

6. At the request of the Chairman, the Director presented Agenda Item 5, the Administrative Report, DC 2/3. In formal resolution the Directing Council noted with appreciation the latitude given the Director (Para 2 - Physical Facilities) in expediting construction work but urges that further steps be taken to hasten the completion of work since the successful prosecution of the programme of research requires the ability to change plans and approaches; this often requires constructional changes.

6.a. The Directing Council endorses most strongly the need for qualified maintenance personnel and empowers the Director to use whatever measures are available to him to recruit such personnel.

6.b. The Directing Council formally expresses its appreciation to Australia, through the SEATO Council, for the gift of two jeep station wagons and recommends to the Director that he keep SEATO advised of further such requirements.

6.c. The Directing Council endorses the action of the Director in soliciting assistance in any direction to resolve its major problem in communications and surface transportation. It was unanimously agreed that the use of a helicopter on a permanent basis was not practicable but that when available the helicopter under contract to USAID might be used.

The Directing Council then adopted the Administrative Report.

7. At the request of the Chairman, the Director presented the Financial Report, DC 2/4, Agenda Item 6. The Financial Report was formally adopted.

8. At the request of the Chairman the Director presented the Auditor's Report and his comments thereon. (Agenda Item 7). Because of the necessity to clarify for Council Members certain accounting and administrative procedures, the Council felt that during the discussion it was advisable to have available the advice of Mr. Edgar L. Owens, USAID/Dacca.

The meeting was adjourned at 16.00.

9. The meeting reconvened on 16th November, 1962 at 0900 hours, with Mr. Owens and Mr. Cassanos present, and proceeded to review the Auditor's report.

9.a. On Recommendation No.1, the Directing Council accepts the fact that Rs 309,713 were advanced by the Government of Pakistan for the alteration of the Institute of Public Health Building to establish the Cholera Research Laboratory's physical facilities. The Directing Council feels that nothing further is indicated toward establishing the validity of this specific item of expenditure.

9.b. On Recommendation No.2, the Directing Council approves the transfer to the Capital Reserve Fund of the sum remaining in the CRL Operating Fund which represents the Government of Pakistan's contribution. When this sum is finally agreed on by AID and CRL after a further review of the expenditures, this transfer should be made.

9.c. On Recommendation No.3, the Directing Council requests that the CRL and the Auditor of AID reach a mutual agreement on the budget headings to be used and thereafter recalculate the expenditure items on this basis. The Directing Council will, at its next regular meeting, be advised of the specific budget headings which will have been established.

9.d. With respect to Recommendation No.4, the Directing Council agrees with the principle that any interest accruing on any fixed deposits of project funds be credited to the appropriate fund.

9.e. On Recommendation No.5, the Directing Council expresses its opinion that it is proper for Dr. Benenson's 25% post differential to be paid from the Rupees supplied to CRL from PL-480 funds appropriated to the NIH, and Dr. Monsur's consultant fees to be paid from the NIH Research Agreement monies budgeted for salaries and wages. The Directing Council requests that this Recommendation be brought to the attention of the NIH.

9.f. On Recommendation No. 6, pertaining to the GOP and USAID contribution to the CRL Capital Reserve Fund, the Directing Council will accept any decision arrived at by USAID and approves a refund to USAID from sources available to the Director if this be the final requirement.

9.g. On Recommendation No. 7, the Directing Council notes that adequate records are maintained to reflect utilization of the Dollar Funds which are under the custody of the Laboratory.

9.h. On Recommendation No. 8, the Council notes that the Director of the Laboratory will shortly visit the United Kingdom with a view toward complying with this recommendation as far as is possible.

9.i. On Recommendation No. 9, the Directing Council accepts this recommendation and notes that it has already been incorporated within the Financial Regulations.

9.j. On Recommendation No. 10, the Directing Council accepts this Recommendation. It is noted that adequate property records are being instituted.

9.k. On Recommendation No. 11, applies to property which belongs to the NIH and is carried on their inventory. The Council notes that the specific cost of commodities purchased for the laboratory, the amount of freight and the other charges that are paid on shipments to Dacca are all available to the Council in the Director's Financial Report.

9.l. In respect of Recommendation No. 12, the Directing Council recognises that the engagement of staff for projects within the laboratory is made largely on the advice of the Technical Committee and the Technical Committee has reported that foreign technicians for the Water Laboratory are likely to available during the following year.

10. Subject to any reservations that may follow the Council then considered certain broad principles for the guidance of Auditors. Bearing in mind that any research organization must have a high degree of autonomy in its operations to ensure flexibility and that the necessary degree of autonomy is greater than would be generally available to Government or business organizations, the following general lines of policy are recorded:

These are, first, that, generally speaking, the Audit would be limited to the financial transactions of the various funds directly available to the Director of the Laboratory.

Second, the Directing Council desires sufficient accounting by the fund custodian of all funds contributing to the work of the Laboratory, which are not at the disposal of the Director, to permit a costing over the fiscal year of the Laboratory operations according to the budget headings approved by the Directing Council. In particular there is desired a specific accounting of the costs of items of non-expendable equipment so that adequate property accounting may be maintained.

11. The Directing Council express its appreciation to Mr. Owens for his assistance in these deliberations.

12.a. The Directing Council, in considering agenda items Nos. 8 and 9 and the related papers 2/6, 2/7 and 2/8, feels that more time is required for the study of these papers by the respective Governments and Organizations. The Directing Council has full confidence in the Director in his administration of the affairs of the Laboratory. The Council, appreciating that there are certain financial and personnel matters which require urgent consideration, realizes that the Director must continue to resolve these problems by executive action until such time as the financial and personnel regulations have been approved.

12.b. The members of the Directing Council have undertaken to submit as a matter of urgency to their respective Governments or Organizations these draft regulations with a request that any observations or recommendations should be communicated through the appropriate channel to the Director of the CRL at the earliest possible opportunity.

13. With regard to Agenda Items 10 & 11, the Directing Council accepts the budget proposals for the fiscal year 1964 as set out on document DC 2/9, subject to confirmation by the participating Governments or Organizations of the financial allocations set out in that paper. This acceptance determines the level of the Operating Fund Contributions.

14. Reference Agenda Item 12, the Directing Council recommends that the present revised Agreement between USAID and the Government of Pakistan of 30 December, 1961, be extended for a period of not less than three years. The Directing Council authorizes the Director of the CRL to initiate the appropriate negotiations to this end. The Directing Council requests the Director to keep members of the Directing Council informed of progress.

15. It was agreed that the next Meeting of the Directing Council Agenda Item 13, should be held during the last two weeks of November, 1963. The dates of this Meeting will be fixed by the Chairman in consultation with the Director.

16. Under Agenda Item 14, Mr. Aurell expressed the commendation of the Directing Council to the Director of the CRL and his staff for the excellent work that has been done in the Laboratory during the past year. This was unanimously endorsed by all Members of the Directing Council.

17. The meeting was adjourned at 1700 hrs. November 16, 1962.

PAKISTAN-SKATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15 - 16, 1962

15 November 1962.

TENTATIVE AGENDA

- | | | |
|-----|---|--------------------|
| 1. | Election of Chairman, and Vice Chairman | |
| 2. | Report of Technical Committee | DC 2/1 |
| 3. | Director's Scientific Report | DC 2/2 |
| 4. | Program review | |
| 5. | Director's Administrative Report | DC 2/3 |
| 6. | Director's Financial Report | DC 2/4 |
| 7. | Review of Auditor's Report & Director's Comments | DC 2/5 |
| 8. | Presentation of Financial Regulations | DC 2/6 |
| 9. | Review of Personnel Policy and Regulations,
including pay and allowances | DC 2/7 &
DC 2/8 |
| 10. | Review of CRL Budget for 1963, 1964 | DC 2/9 |
| 11. | Determination of Level of Operating Fund Contributions | |
| 12. | Action of Extension of Agreement | DC 2/10 |
| 13. | Selection of Date for Next Meeting | |
| 14. | Other Items of Business | |

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15 - 16, 1962

DC 2/1

15 November 1962

REPORT OF TECHNICAL COMMITTEE
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY
OCTOBER 11, 1962.

Report of Technical Committee

Pakistan-SMATO Cholera Research Laboratory

October 11, 1962.

The Committee is glad to report that each of the sections of the Cholera Research Laboratory, ie., Bacteriology, Water Biology, Epidemiology and Clinical Investigations is reasonably well staffed and work is underway. Moreover, the administrative and supporting staffs and the physical plant are functioning well. The new ward is expected to be completed and opened for clinical investigation within a month.

The scientific program for the meeting of the Technical Committee (see appendix 2) indicates the scope and the work of the staff of the CRL. The Committee is pleased with the progress and expresses its confidence in the Director and his staff.

The clinical investigators, in addition to intensive study on limited numbers of selected patients in its own ward, might profitably undertake larger but less detailed studies, viz., on the role of antimicrobial agents in the treatment of cholera, on the wards of Mitford Hospital. This would require an expansion of the presently planned clinical staff.

The Committee recognizes the need for such exploratory epidemiology studies as are now underway in three localities near Dacca City. However, it emphasizes the desirability of deciding soon on the precise population groups who will serve in studies on the epidemiologic and socio-anthropologic aspects of the disease and in the protective effects of vaccines. The Committee is of the opinion that the population served by a Health Center should also serve as one of the study groups.

The intensive study of the social structure, customs and practices in the villages is desirable since information derived from such efforts will contribute to each of the investigations mentioned in the preceding paragraph as well as to the progressive improvement in the health of the villagers. For this an anthropological team (probably husband and wife) living for a year in a village would be required. In addition, the presence of a public health engineer in the village for a month or so toward the end of the anthropologists stay would assist the studies and contribute to the health of the community.

The unique nature of tanks and their suspected importance in the epidemiology of cholera require that careful study be given them throughout their cyclic seasonal phases and their life history. A botanist and a zoologist working together for one year along with the present chemically and bacteriologically oriented group in the Water Biology Section would be desirable.

(more)

The Committee looks forward to an extension of the bacteriological program into the areas of the genetics of vibrios and their phages, the use of fluorescent antibody techniques and models of experimental infection such as that in the baby rabbit.

The Technical Committee proposes that a meeting be held in Washington DC during the first week of February 1962 on the subject of "Immunologic Aspects of Cholera Vaccine Trials". Attending the meeting will be those members of the Committee and Panel of Experts knowledgeable in this field.

Robert Cruickshank

Prof. Robert Cruickshank

Joseph E. Smadel

Dr. Joseph E. Smadel,
Chairman

A.K.M. Abdul Wahed

Dr. A.K.M. Abdul Wahed

FY 1963

APPENDIX - 1

CRL TECHNICAL ADVISORY COMMITTEE

(advisory committee to the Pakistan-SEATO
Cholera Research Laboratory, Dacca, East Pakistan)

Prof. Robert Cruickshank
Professor of Bacteriology
Bacteriology Department
University of Edinburgh Medical School
Treviot Place
Edinburgh 8, Scotland

Dr. A. K. M. Abdul Wahed
78, Dhammandai Residential Area
Road No. 5, Ramna
Dacca 2, East Pakistan

Dr. Joseph E. Smadel
Chief, Laboratory of Virology and Rickettsiology
Division of Biologics Standards
National Institutes of Health
Bethesda 14, Maryland

PANEL OF EXPERT CONSULTANTS

(to provide specialized advice
to the CRL Technical Advisory Committee)

Dr. Colin M. MacLeod (Immunology, epidemiology)
Professor of Medicine
New York University
School of Medicine
550 First Avenue
New York 16, N.Y.

Dr. Kenneth Goodner (Microbiology, immunology)
Professor of Microbiology
Jefferson Medical College
1025 Walnut Street
Philadelphia, Pennsylvania

Dr. Theodore E. Woodward (Clinical disease, general
Professor of Medicine aspects)
University of Maryland
School of Medicine
Baltimore 1, Maryland

(more)

Captain Robert A. Phillips, MC, USN (Clinical disease, physiology,
Commanding Officer, Box 14 general aspects)
U. S. Naval Medical Research Unit No. 2
APO 63
San Francisco, California

Dr. Francis S. Cheever (Microbiology, epidemiology)
Dean, School of Medicine
University of Pittsburgh
Pittsburgh 13, Pennsylvania

Dr. Margaret Pittman (Microbiology)
Chief, Laboratory of Bacterial Products
Division of Biologics Standards
National Institutes of Health
Bethesda 14, Maryland

Dr. Willard F. Verwey (Microbiology, immunology,
Chairman, Department of Microbiology vaccine production)
The University of Texas Medical Branch
Galveston, Texas

Dr. Thomas Francis, Jr. (Epidemiology)
Professor and Chairman
The University of Michigan
School of Public Health
Ann Arbor, Michigan

Dr. G. M. Bull (Physiology)
Queen's University
Department of Medicine
Institute of Clinical Science
Grosvenor Road
Belfast 12, Northern Ireland

Dr. J. J. Dizon (Infectious disease control)
Chief, Disease Intelligence Center
Department of Health
Manila, Philippines

Dr. Luang Binbakya Bidyabhed (Dr. Pyn) (General aspects)
489 Rajavithi Road
Bangkok, Thailand

(more)

Dr. Robert H. Black
School of Public Health & Tropical
Medicine
The University
Sydney, N.S.W., Australia

(Socio-anthropological
field)

Dr. J. E. Gallut
Chef du Laboratoire du Cholera
Institut Pasteur
25 Rue du Docteur Roux
Paris XV, France

(Microbiology, immunology)

Dr. Michael Flynn
Chief Medical Officer
Metropolitan Water, Sewerage & Drainage Board
341 Pitt Street
Sydney, N.S.W.
Australia

(Sanitary engineering)

Dr. Kamaluddin Ahmad
Professor of Biochemistry
University of Dacca
Dacca, East Pakistan

(Biochemistry and nutrition)

Dr. Musleh Uddin Choudhury
Head, Department of Microbiology and Hygiene
Faculty of Veterinary Sciences
East Pakistan Agricultural University
Mymensingh
East Pakistan

(Veterinary medicine)

Dr. K.A. Monsur
Director
Institute of Public Health
Mohakhali, Dacca 5
East Pakistan

(Laboratory aspects)

Dr. M. Q. Khuda
Director, East Regional Laboratories
Pakistan Council of Scientific and Industrial Research
Dhanmandi, Dacca 2
East Pakistan

(General)

Dr. L. R. Richardson
Professor of Zoology
Victoria University of Wellington
P. O. Box 196
Wellington, New Zealand

(Water biology)

All members of the committee and the Panel of Expert Consultants attended the meeting at Dacca on 9-11 October 1962 with the exception of Drs. Cheever, Pitman, Verwey, Francis and Callut who were not called to this meeting, and Dr. Khuda who could not attend.

CRL TECHNICAL COMMITTEE

9 - 11 October 1962

A G E N D ATUESDAY, 9 OCTOBER

0900 - 0915 Clinical Experience with Cholera in East Pakistan - Dr. Gordon

0915 - 1000 Discussion opened by Drs. Phillips and Woodward

1000 - 1100 Coffee break, and visit to Laboratories

1100 - 1105 NAG's in association with Human Disease - Dr. Gordon

1105 - 1115 Characterization and grouping of NAG's - Mr. Iqbal

1115 - 1125 Agar Diffusion Studies - Dr. Greenough

1125 - 1200 Discussion opened by Dr. Goodner

1200 - 1210 Bacteriophage Studies - Dr. Monsur

1210 - 1240 Discussion opened by Dr. MacLeod

1240 - 1330 L u n c h

1400 - 1700 Field Trips - by groups

1. Water Study Group - Mr. Zafar
2. Mitford Hospital Group - Dr. Greenough
3. Kaliganj - Dr. Stockard
4. Mudafa - Dr. Quadir Khan
5. Narayanganj - Dr. Gordon

WEDNESDAY, 10 OCTOBER

0900 - 0930 Case contact studies - Dr. Stockard

0930 - 1030 Discussion opened by Dr. Luang Pyn

(more)

1030 - 1045	Coffee Break
1045 - 1100	Comparison with pattern in other countries - Dr. Stockard
1100 - 1200	Discussion opened by Dr. Dizon
1200 - 1300	L u n c h
1300 - 1330	Water Studies - Mr. Zafar
1330 - 1430	Discussion opened by Drs. Richardson and Flynn
1430 - 1445	Animal Studies - Dr. Gordon, and Dr. Greenough
1445 - 1515	Discussion opened by Dr. Choudhury
1515 - 1545	Prospective Epidemiological Studies - Dr. Quadir Khan
1545 - 1700	Discussion opened by Dr. Black

THURSDAY, 11 OCTOBER

0900 - 0915	Vaccine Studies - Dr. Benenson
0915 - 1000	Discussion opened by Dr. MacLeod
1000 - 1015	Tea Break
1015 - 1030	Proposed Clinical Research Studies - Dr. Gordon
1030 - 1200	Discussion opened by Drs. Bull, Woodward, Kamaluddin, and Phillips.
1230 -	Lunch and General Discussion on board river trip.

October 9, 1962

List of Pakistan-SEATO Cholera
Research Laboratory Staff.

Director's Office:

1. Dr. Abram S. Benenson	-	Director
2. Mr. R.S. Townsend	-	Executive Officer
3. Mrs. R.A. Fisher	-	Secretary
4. Mr. M.M. Ibrahim	-	Steno/secretary

Clinical Research Section:

1. Dr. Robert S. Gordon Jnr.	-	Chief
2. Dr. W.B. Greenough III	-	Research Physician
3. Miss Anisa Saad	-	Research Assistant
4. Mrs. Madhabi Ghosh	-	Senior Nurse
5. Mr. Syed Iqbal Hasan	-	Junior Technician
6. Mr. Mafizuddin Ahmed	-	Laboratory Technician
7. Mr. Md. Shajjehan Taluk- der	-	Laboratory Technician
8. Mr. Sheikh Mia Jan	-	Bottle Washer
9. Mr. Zahedul Huq	-	Bottle Washer

Epidemiology Section:

1. Dr. Joe L. Stockard	-	Chief
2. Dr. Abdul Quadir Khan	-	Epidemiologist
3. Mrs. Jahanara Akhter	-	Sociologist
4. Mrs. Sufia Khatun	-	Sociologist
5. Mrs. Nurunnessa Chowdhury	-	Sociologist
6. Miss Meherun Nahar Khan	-	Sociologist
7. Miss Gul-e-Afroz	-	Sociologist
8. Miss Dipika Chowdhury	-	Sociologist
9. Miss Nuzhat Jahan	-	Sociologist
10. Mr. Quazi Mohammad Asa- dullah Akef	✓	Sociologist
11. Mr. Syed Ahmed Khan	✓	Sociologist
12. Mr. Abdul Momin Chowdhury	✓	Sociologist
13. Mr. S.O.Q. Haider	-	Sociologist
14. Mr. Abdus Sattar	-	Sociologist
15. Mr. Shafiqur Rahman	-	Sociologist
16. Mr. Shafiqul Islam	-	Sociologist
17. Mr. Md. Anwar Hossain Khan	-	Sociologist
18. Mr. Mohammad Faiz Ullah	-	Sociologist

* Scientific Director, CRL

** Deputy Director, CRL

(more)

Bacteriology Section :

- | | | |
|-----------------------------|---|------------------------|
| 1. Dr. B.I. Davies | - | Chief |
| 2. Mr. Imdadul Huq | - | Asstt. Bacteriologist |
| 3. Mr. Wasequddin Ahmed | - | Bacteriological Asstt. |
| 4. Mr. M. A. Salek | - | Bacteriological Asstt. |
| 5. Mr. A. K. M. Nurul Islam | - | Media Maker |
| 6. Mr. Delwar Hussain | - | Laboratory Assistant |
| 7. Mr. A. Rouf Mian | - | |
| 8. Mr. Joseph George Gomes | - | Glass Washer |

Water Analysis Section :

- | | | |
|----------------------------|---|----------------------------|
| 1. Mr. Syed Zafar Ahmed | - | Chief Water Chemist |
| 2. Mr. Md. Yasin | - | Assistant Water Technician |
| 3. Mr. Syed Iltefat Ahmed | - | Assistant Water Technician |
| 4. Mr. P. K. Bose Neogi | - | Assistant Water Technician |
| 5. Mr. Monwar Ali | - | Bottle Washer |
| 6. Mr. Osman Gani Siddique | - | Sample Taker |
| 7. Mr. Anwar Ahmed | - | Laboratory Attendant |

Administrative Section:

- | | | |
|------------------------|---|-----------------------------------|
| 1. Mr. M. R. Bashir | - | Administrative Officer-Accountant |
| 2. Mr. Nisar A. Husain | - | Property & Supply Officer |
| 3. Mr. Md. Shahabuddin | - | Administrative Assistant |
| 4. Mr. P. C. Barua | - | Steno/Secretary |
| 5. Mr. R. Rozario | - | Senior Typist |

General Services Section:

- | | | |
|------------------------------|---|-------------------------|
| 1. Mr. K. Abdullah-Al-Mahmud | - | Veterinarian |
| 2. Mr. Md. Abdul Momen | - | Veterinarian |
| 3. Mr. Moyeen Uddin | - | Animal Attendant |
| 4. Mr. D. Roderick | - | Librarian |
| 5. Mr. M. S. Shahi | - | Mechanical Supervisor |
| 6. Mr. Abdus Samad | - | Electrician (Part-time) |
| 7. Mr. Abdul Karim | - | Driver |
| 8. Mr. Lal Miah | - | Driver |
| 9. Mr. Moyeenuddin Khan | - | Driver |
| 10. Mr. Asadullah Khan | - | Driver |
| 11. Mr. Abdul Hafiz | - | Driver |
| 12. Mr. Abdul Matin | - | Darwan |
| 13. Mr. Rafatullah | - | Darwan |
| 14. Mr. Abdul Aziz | - | Darwan |
| 15. Mr. A. K. Bhuiya | - | Darwan |
| 16. Mr. Nazir Khan | - | Night Guard |
| 17. Mr. Rakhal Chandra Das | - | Sweeper |
| 18. Mr. Nakul Chandra Mali | - | Sweeper |
| 19. Mr. Nirmal Chandra Das | - | Sweeper |
| 20. Mr. Haricharan Mali | - | Sweeper |
| 21. Mr. Kismat Ali | - | Cleaner |
| 22. Mr. Shafuruddin | - | Gardener |

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15 - 16, 1962

DC 2/2

15 November 1962

DIRECTOR'S SCIENTIFIC REPORT

16 November, 1962

DC 2/2

Pakistan-SEATO Cholera Research Laboratory

Director's Scientific Report

The months which have passed since the first meeting of this Directing Council have seen the initiation of a number of scientific projects, and the continuation of those bacteriologic and epidemiologic studies which were in progress at that time. The Laboratory is not yet in a position to report that more than one of its studies (1) has progressed to the state of publication in the scientific literature. Nevertheless many important preliminary results have been obtained which will be of great significance in future work, and will form part of the material for future publication. In addition to the performance of experimental work, the senior scientific staff of the laboratory can point with satisfaction to many achievements in the fields of development of physical facilities and recruitment of qualified scientific personnel.

The oldest technical section of the Laboratory is the Section on Bacteriology, which began to function even before the formal dedication of the Laboratory in December, 1960. Since the last Directing Council meeting the department has been greatly strengthened by the arrival of Dr. B.I. Davies, from the United Kingdom, who has assumed the position of Section Chief, and of Mr. Imdadul Huq, M.Sc. Dr. K.A. Monsur has served in the capacity of consultant, and until his recent departure for higher training in the United States, Dr. Ataur Rahman of the Public Health Institute was also contributing to the work of the laboratory. During April and May, 1962, the CRL was visited for a period of weeks by Prof. Kenneth Goodner, Dr. Harry Smith, and Dr. Philip Russell, who rendered assistance of great value to the bacteriologic studies.

The Bacteriologic Laboratory has maintained regular contact with the cholera ward of Mitford Hospital, Dacca, and has examined feces or rectal swabs from as many as possible of the patients admitted with diarrhea. In addition, specimens have been obtained from outbreaks in other cities (Khulna, Narayanganj), from studies of contacts of cases, and from surveys for carriers. Since April, 1962, specimens examined for the presence of vibrios have been routinely cultured for shigellae and salmonellae as well. Reports on these cultures are made available to Mitford Hospital as a regular service. During the twelve-month period ending on 31 October, 1962, there were 396 isolations of *Vibrio cholerae*, 46 of non-cholera vibrios, and 5 of other enteric pathogens, out of a total of 1,646 specimens. Most of these organisms are being maintained in stock cultures for characterization studies by means of antisera, bacteriophages, etc. It is of interest that almost 90% of the strains of *V. cholerae* isolated during this period are of the Inaba subtype.

A programme of study of cholera bacteriophage has been initiated, and active phages have been isolated along with cholera vibrios in twenty-two instances. In addition, the standard typing bacteriophages used by Mukerjee in Calcutta have been obtained. Many of the strains of vibrio cholerae isolated during 1962 have been characterized with respect to their phage type, and most strains fall into Mukerjee's phage type three. The Ogawa organisms appear to fall into two phage groups. The significance of this differentiation is being further investigated.

A number of serologic studies have been undertaken, primarily by the personnel of the Clinical Research Section, who have been unable to undertake direct clinical work because of the delay in outfitting the CRL research ward. It has been the misfortune of the clinical research group to lose Dr. O. Ross McIntyre, who was forced by ill health to return to the USA. His place has been filled by Dr. William B. Greenough, and the section has also been joined by Miss Anisa Saad, M.Sc., Mr. Syed Iqbal Hasan, B.Sc., and Mr. Labibul Haque, B.Sc., research technicians.

A number of interesting results have been obtained, the most important of which may be summarized as follows: 1. Many sera, drawn from residents of the Dacca area, are positive for agglutinating antibodies against vibrio cholerae. In many cases, of course, there is a history of previous vaccination against cholera, so that the possibility that the antibodies were stimulated by previous exposure to or mild infection with vibrio cholerae cannot be easily be evaluated. The effect of the injection of 1 cc of cholera vaccine, as prepared by the Government of East Pakistan Institute of Public Health, has been tested in 34 cases. In 27 of these there was at least threefold rise in agglutinating antibody level, and in 8 there was a tenfold or greater increase. Thus it seems likely that the distribution of this vaccine among the population is the explanation for at least a certain proportion of the observed antibody levels.

In the case of the non-cholera vibrios however, the possibility that antibody levels are attributable to previous vaccination does not exist. Agglutinating antibodies against one or more of the non-cholera vibrios have been demonstrated in 26 out of 46 tests using serum from individuals resident in the Dacca area. It has also been possible to obtain acute phase and convalescent serum samples in a number of instances where an attack of diarrhea was associated with the presence of a non-cholera vibrio in the stool or rectal swab culture. In three of these cases there has been a definite increase in the serum level of antibodies against the organism isolated from the stool or rectal swab culture.

Rabbits have been immunized with eight of the non-cholera vibrios isolated in the laboratory as well as with classical Inaba and Ogawa types. By means of these antisera, a beginning has been made toward the classification of the non-cholera vibrios which have been isolated from human sources. Several groups of similar, and perhaps identical, organisms may now be recognized. In addition, these rabbit antisera have been used in the performance of agar gel diffusion experiments using a micro technique. This procedure has made it possible to explore antigenic relationships other than agglutinability among the cholera and non cholera vibrios. It is noteworthy that this technique, as well as the phage typing procedure demonstrates differences among the various strains of Ogawa organisms.

A third serologic study which is still in progress deals with the finding of naturally occurring agglutinating antibodies for *Vibrio cholerae* among the ruminants. Cattle in particular, but also goats, sheep, and water buffalo have been found frequently to possess measurable agglutinin titers against both Inaba and Ogawa types. In a few instances, titers of 1/1000 or better have been discovered, and one animal having such a titer has been acquired by the Laboratory for continuing observation. Studies designed to establish the specificity of these antibodies are now in progress. Although it has long been known that there are immunologic cross reactions between *Brucella* and *Vibrio cholerae*, it appears that the antibodies found in these ruminants are not attributable to stimulation by *Brucella* antigens. A number of non-cholera vibrios, but not *V. cholerae*, have been isolated from rumen contents.

In addition to the studies mentioned above the professional staff of the Clinical Research Section has been concerned with the development of facilities for a research cholera ward at the Institute of Public Health. A great deal of construction and preparation has been necessary, particularly because of the fact that this cholera treatment center will be an isolated unit, and not part of a hospital with all its many supporting facilities. It is anticipated that the cholera ward will be ready to begin its functions within a short time after this meeting of the Directing Council is concluded. Some of the necessary staff is already on duty, and the clinical pathology laboratory operating.

The Water Laboratory, which was transferred from USAID/Dacca to the Cholera Research Laboratory in the fall of 1961, has now completed one year of operation in its new setting. There have been no important personnel changes. During this period it has maintained a surveillance study of nine typical tanks in the village of Kaliganj, close to Dacca. Kaliganj is an area frequently affected by cholera, and it supplies many of the patients admitted and treated at Mitford Hospital, Dacca. The tanks in Kaliganj were visited and sampled on a regular basis, and observations made of temperature, chemical composition, and the presence or absence of cholera and/or other vibrios. In addition to these selected tanks, one important river near Dacca, the Lakhya, has been sampled and analysed at regular intervals. These surveillance studies appear to be showing regular seasonal changes, with increasing concentrations of various solutes during the dry season. Bacteriologic study has revealed the presence of non-cholera vibrios throughout the year, but no *vibrio cholerae* has been identified in any of these samples of water. Coliform counts do reveal some fluctuation, with an apparent tendency for the highest levels to be reached in late spring and early summer. In addition to these routine studies, the Water Laboratory has analysed over 200 specimens obtained in the immediate vicinity of households in which an attack of cholera has occurred. Among these specimens, but in only five instances, *vibrio cholerae* has been recovered from water used for drinking in the affected household or by a close neighbor.

During the spring and summer of 1962, observations on tanks in and around Dacca were carried out in an attempt to confirm or refute the findings of Cockburn and Cassanos, who noted striking increases of pH of the water tank on hot, sunny days. This finding was, indeed, confirmed in two of the tanks which Cockburn and Cassanos had studied, but not in other tanks in the vicinity of Mohakhali, where the population is less dense.

It would seem, therefore, that photosynthesis could not, as they suggested, be the cause of the increasing pH, since that should apply in all locations. An alternate suggestion is that the activities of laundrymen in city tanks, which are greatest on sunny days, release enough alkali into the water to affect the pH. Other specialized studies on tanks have included efforts to determine whether or not the tank water is effectively stratified. Measurable differences in temperature and pH have been found between layers at different depths, but there seems to be little, if any, difference in the frequency of recovery of vibrios at various depths. Finally, the laboratory has been carrying out certain artificial in vitro experiments involving the inoculation of selected water samples with cholera vibrios. Under the artificial conditions prevailing inside the air conditioned laboratory, the pathogen appears to survive in such water samples for over one week. However when the water sample is exposed to the higher temperatures prevailing on the veranda, as well as to the action of air, sunlight and other agents, the survival of the cholera vibrios appears to be considerably shorter. In a few instances, after water was inoculated with classical *Vibrio cholerae*, subsequent cultures yielded a non-cholera vibrio. Although the number of experiments is too small for a conclusive result, it seems not unlikely that the organism lost its specific agglutinin as a result of mutation or other change occurring in the water.

During 1962 the Section on Epidemiology has become numerically the largest scientific group within the laboratory. Dr. Stockard, the section chief, is now being assisted by Dr. Abdul Quadir Khan, Epidemiologist, and a staff of 16 field workers, the majority of whom are holders of the M.A. degree in sociology. They have carried out three important projects during the year which has just passed.

The Health Department of the Government of East Pakistan has made it possible for the Cholera Research Laboratory to transcribe cholera mortality and morbidity data which are on file in Dacca for the years 1947 through 1960. Although it is recognized that many cases of cholera occurring in rural areas go unreported, these data should be of value in comparing cholera incidence among the various geographic subdivisions of the province, and in various years. Although a complete statistical analysis of this information has not been carried out, certain trends are apparent. Inspection of the material suggests that in the northern part of the province there is more cholera in the fall than in the spring, while in the southern districts the reverse is true. In Noakhali district the number of cholera deaths reported during the months of July and August is greater than that for any other district. These months being generally the season of lowest cholera incidence, it appears that the Noakhali area may be favorable for the study of factors related to the persistence of infection between epidemic seasons. For two districts, Bakerganj and Dacca, reports of cholera deaths were obtained for each individual thana for the years 1947 through 1960. The figures for the areas closest to the Cholera Research Laboratory have been examined with special care in the hope of defining areas where prospective epidemiological studies may be instituted. Among the nearby areas, the highest cholera mortality rate appears to prevail in the thana of Karaniganj, located just south of Dacca City, across the Bariganga River.

A second project has been concerned with field evaluation of household interview methods, along with a sociologic study of the population involved. In two arbitrarily selected villages, interviews have been carried out in order to define the family or household unit, and to get some background information concerning the age, sex, religious, and occupational distributions among the population. Histories of cholera immunization, previous cholera attacks, and past deaths from cholera among the household group have been elicited. Families have been asked about their water and food supplies, their sanitary practices, and their utilization of the medical facilities available to the community. The group has also attempted to learn whether accurate information concerning travel away from the community and visits of outsiders into the community can be elicited.

Finally, during the early months of 1962, a pilot household case control study was carried out. Households in and near Dacca City, from which cases of suspected cholera were admitted to Mitford Hospital, were selected for study. Along with each affected household, a near neighbour household, free of diarrheal disease at time of the initial interview, was selected as a control. One followup visit was made to as many households as possible approximately two weeks after the initial interview. 69 households, with a total population of 814, were investigated. In 15 households there were 1 or more bacteriologically confirmed cholera cases; in 17 there was diarrheal disease, but the diagnosis of cholera was not confirmed either because of negative cultures (15 patients) or failure to obtain cultures (5 patients). 37 households were in the control group. Those households having diagnosed cholera or undiagnosed diarrheal disease had a larger average number of members than did the control group. Households with bacteriologically confirmed cholera had a significantly higher proportion of female members than did the others. Both bacteriologically confirmed cholera and undiagnosed diarrheal disease appeared to be significantly more common among the females. The diagnosis was confirmed bacteriologically in 75% of those females from whom cultures were obtained, but only half as frequently among the males. This discrepancy may be explained by the greater delay between onset of symptoms and the time when the first culture was collected in the male cases. Attack rates of bacteriologically confirmed cholera among children less than 10 years of age were significantly higher than rates in individuals over 10. Multiple attacks of diarrheal disease were found in 40% of the 15 households in which confirmed cholera existed, but in only 11% of 17 households having diarrhea of unknown etiology. In those households having multiple attacks of cholera, there were cases in which 2 or more patients were attacked on the first day of the outbreak, and others with intervals between cases of up to 7 days. No important differences in regard to age, sex or total number of family members were noted between those households having a single case of cholera and those with multiple cases.

In coming months, the Laboratory plans to continue those present studies which appear promising, and to begin to explore new areas as its staff and facilities increase. The future should also see a greater degree of collaboration between the several sections, each of which now has an independent investigator to serve as section chief. New cultural methods will be tested in the Section on Bacteriology, in the hope of finding even more rapid and certain methods of diagnosing cases of suspected cholera. Those cases which clinically resemble severe cholera, but are culturally negative

by present techniques, merit special attention. A search for better methods for recovering pathogenic vibrios from water and other environmental sources will be a joint project of the sections of Bacteriology and Water Studies. The Water Laboratory is also hoping to be able to give more attention to biologic factors in water other than the mere presence or absence of vibrios. To do this adequately, the Laboratory will require the addition of a qualified biologist to its staff. With the opening of the hospital area, many possibilities for the study of the pathologic physiology of acute cholera will appear. In collaboration with the Bacteriologic Section, the Section on Clinical Research plans a concerted effort to establish the limits of the ability of *V. cholerae* to invade the human host. Thus specimens of every accessible body fluid, and as many tissues as possible, will be cultured for organisms, and tested for the presence of antigens derived from *V. cholerae*. The hospital should also provide a source of index cases for epidemiologic investigations. If good rapport with the local populace is achieved, the Laboratory may be rewarded by access to those rare cases occurring in the inter-epidemic periods, the very cases most important to study epidemiologically. The Clinical Research Section is also planning a follow-up study of cholera cases after recovery in the hope of finding correlations between cholera susceptibility and the presence of pre-existing or underlying pathology. Epidemiologic studies will be broadened to include laboratory methods, and specimens taken from people and from the environment will be cultured extensively. The future objectives of the section include studies designed to identify the factors that make cholera endemic in this area, and planning for field trials of cholera vaccine. The former is of great importance, since cholera appears to be prone to disappear, after an epidemic is over, from almost every part of the world except Bengal. If the reason for its persistence here could be found and eliminated, the disease could conceivably become extinct. Before this ideal is achieved, however, the study of practical prophylactic measures, such as vaccination, remains a significant challenge.

1. Monsur K.A. "Alkaline Taurocholate-Tellurite-Peptide Preservative Fluid for *V. Cholerae*. Fed. Proc. 21, 394, (1962).

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15 - 16, 1962

DC 2/3

15 November 1962

DIRECTOR'S ADMINISTRATIVE REPORT

15 November 1962

Director's Administrative Report

Since the last meeting of the Directing Council, personnel, physical plant and equipment have been consolidated with the result that the laboratory space is at long last ready for complete function; the ward is almost completed, and the staff is ready to begin full scale operations.

Personnel

The table below reflects the changes in personnel since the last meeting of the Directing Council. The rate of current expansion is indicated by the increase in personnel in the short interval since the meeting of the Technical Committee, on 9th - 11th October. Many of these represent the personnel required for the patients' care and the operation of a ward.

	Direc- tor's Office	Clinical Research Section	Epi- demiology Section	Bacte- riology Section	Water Ana- lysis Section	Admin. Sec- tion	General Servi- ces Section	Total
28 Feb 1962	3	2	7	5	6	4	13	40
9 Oct 1962	4	9	19	8	7	4	22	73
16 Nov 1962	4	14	18	10	7	4	23	80

Professional Personnel

The first Director, Dr. Fred L. Soper, left Dacca on 2 March, 1962. Until 30 June, Dr. Robert S. Gordon, Jr., effectively functioned as Acting Director pending arrival of the incumbent Dr. A. S. Benenson. Dr. William B. Greenough, III, joined the laboratory group coming from the Peter Bent Brigham Hospital, Boston, Massachusetts, where he had been Senior Medical Resident. Dr. Ben I. Davies joined us on 21 September, 1962, for a one year period, coming from the Department of Bacteriology at the University of Edinburgh, on secondment from his appointment as Lecturer. On 18 September, 1962, Dr. O. Ross McIntyre left Dacca because of illness depriving us of the services of a valuable colleague; in his present assignment in the NIH, we

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propose to use him as a collaborator.

As was noted in the report of the Technical Committee, attempts to recruit a Water Biologist either in the United States or in the United Kingdom were unsuccessful. A fair amount of discussion at this meeting was devoted to the problem of adequate study of water sources. Professor Richardson from Wellington, New Zealand, was hopeful that he could find a Botanist and a Zoologist who would be willing to come to Dacca to work for at least a year to study the cyclical changes that occur in waters in this area. One concrete action has been taken: Dr. Flynn from Sidney, Australia, has made arrangements for one of his senior technical personnel to spend three to four weeks during the month of January in our water laboratories reviewing the techniques in use and teaching our personnel any other techniques which he might feel are improvements over existing practice.

One current personnel problem is that of obtaining the medical and nursing staff for the operation of the ward. According to the agreement between AID and the Government of Pakistan of 30 December 1961, the Government of Pakistan is responsible, in so far as possible, for seconding the medical and nursing staff for the ward. This provision was inserted at the request of the Government of Pakistan. We heartily endorse the concept that Pakistani physicians provide the medical care both from the cultural and political point of view, as well as for the opportunity this will give us to work intimately with the members of the Pakistani medical profession. Cognizant of the shortage of nurses and in the interests of long term continuity of effort we have hired three nurses and have one other processed for hire. Unfortunately, the government operation requires that the deputation of personnel from the Government to the Laboratory (as a foreign agency) must be approved by the Foreign Service Committee, a process which requires several months. The requirement for physicians was brought to the attention of the Director of Health Services on 30 March, 1962, but to date no personnel from the GOP or GOEP have become available for ward service.

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Technical Personnel

We are happy with the supply of technical and sub-professional personnel. We have been able to procure necessary personnel as our physical facilities have become available but they have required training in the techniques in use. This interim period has been very important in this regard since it has provided the opportunity for supervisory personnel to evaluate the competence of their technical assistants and to provide the necessary training so that we can have more confidence in results when detailed studies on patients begin. The need for an organized method of providing advanced training for outstanding personnel has become evident; a formalized method for providing foreign training in the United States or the United Kingdom, including travel, necessary costs, a modest stipend, is highly desirable in helping procure outstanding personnel and then to fully develop their innate capabilities.

Physical Facilities

The establishment of the CRL Capital Reserve Fund has provided the laboratory with a much greater latitude in planning and implementing required alterations and constructions. Nevertheless, movement toward completion of necessary alterations is discouragingly slow since each project which involves changes to a government building requires approval by the Construction and Buildings Department of the Government of East Pakistan. In the normal procedure, the C & B Department provides an estimate of the job cost which the laboratory must pay in full in advance. Then the Government selects a contractor by bid and supervises the construction. This process is very time consuming and the progress of the project thereafter has generally been very slow and the quality of performance often wanting.

Since 13 September, permission has been granted by the Construction and Buildings Department for the laboratory to negotiate directly with a contractor for specific alteration and construction jobs; inspection during progress and at completion of the work is performed by the Construction and Buildings Department to ensure compliance with their standards. This has

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materially expedited progress but we are still confronted by the problem posed by the lack of familiarity of the workmen with the materials used in a Research Laboratory. For example, installation of vulcathene piping to provide acid proof drains has resulted in inordinate delays needed to correct the many leaks. Our work would be greatly expedited if we had on our staff engineering or maintenance personnel who have had experience with the materials involved.

Physical facilities which have been completed or essentially completed since the last Meeting of the Directing Council in February include the construction of a service building as an annex to the ward to provide proper facilities for the decontamination and cleaning of laundry, dishes and personnel that come off the contaminated area of the ward; the construction of an ambulance entrance including the relocation of the electrical mains; the provision of necessary plumbing fly-proofing and ventilation for the wards and the installation of air conditioners in the clinical research laboratories. A fuel oil power incinerator has been installed in a structure designed for its operation and so located that it can serve the requirements of the CRL as well as our hosts the Institute of Public Health; this is not yet operational awaiting the installation of the necessary utilities.

The following additional construction is required :

Considerable renovation of the existing animal house is necessary to make possible a prolific rabbit colony needed to carry out the studies recommended by the Technical Committee.

A stairway at the far end of our wing is essential to connect the three storeys at both ends of the working area. Our present single stairway involves the waste of much time and effort in carrying specimens from one floor to the other and provides no escape route from end rooms in case of any unforeseen catastrophe.

Alteration of the media room and glass washing facilities is urgently required in order to cope with the volumes of glassware used in the full operation of this laboratory.

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The erratic electrical voltage requires the installation of a generator and a voltage stabilizer. The generator has recently arrived as a part of the contribution of the U.K.; the voltage stabilizer is en route from the United States. These, together with the gas generator contributed by the U.K., should be housed in a separate structure somewhat away from the main building and the ward area to reduce the fire hazard and noise. The same construction could house inflammable and explosive solvents and chemical, a maintenance shop, a mortuary and could, in addition, be expanded to alleviate our present gross shortage of warehousing space.

The apartment which has been made available still requires modification to permit emergency staff to stay the night. It is proposed also to utilize some of this space for functional purposes.

Although the physical installation of the incinerator has been arranged, the local engineers have still not come to an agreement on the installation of electricity and water required for its operation. This is being pushed and is yet to be completed.

Basic redesign of the laboratory area is under active consideration; an impending shortage of research space can only be resolved by enclosing the verandahs and incorporating these within the physical facilities which are in actual use; an elevator will permit the safe and easy movement of heavy equipment between the floors of the building.

Projects of lower priority but which are nevertheless highly desirable from the standpoint of improving our operational laboratories include the construction of small laboratory facilities at medical installations elsewhere in East Pakistan to accommodate studies in the field. The specific requirement for these is not firm and will be based on the development of our program.

Transportation

At the time of the last Directing Council meeting, the laboratory's motor fleet consisted of three vehicles - a Chevrolet station wagon, a Willys jeep station wagon and a Willys jeep, a fleet which was grossly

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inadequate for our requirements. In August we were able to borrow from AID/Dacca a jeep station wagon which was not in use. Even though this vehicle is not in outstanding working order, its availability has been of great value to the laboratory and currently negotiations are under way in Washington between AID and the NIH which should pass title to the NIH making this vehicle available to the CRL permanently.

A carryall designed to serve as a personnel carrier as well as an ambulance was ordered by the NIH in April; we have been advised that the contract has been let for the delivery of a Dodge carryall to the port for shipment on 15 November. In addition, authorization has been obtained for the purchase locally of a Volkswagen Microbus, using funds provided by our research agreement.

While these last two vehicles gave us hope for the future, our actual operating condition was critical when advice was received from the Secretary General, SEATO, that a gift of two jeep station wagons had been made to us by the Government of Australia through SEATO. These most welcome vehicles were delivered to us on 18 October 1962, and are now helping to fill the serious gap in our land transport requirements.

The terrain of East Pakistan is such that motor vehicles are of little use for travel to study sites remote from Dacca. As a matter of fact, some of these represent the best areas for the study of the epidemiology of cholera by reason of the high incidence of disease and their greater population stability. Helicopter travel makes these areas appropriately accessible but there is only one helicopter in East Pakistan available for public use under contract to USAID/Dacca. This has been used twice by the laboratory to visit a field study site at a cost of Rs 476 per hour flying time but a recent crash has put it out of commission for an undetermined period. We have investigated the cost of having a helicopter of adequate size available to us. We have received a bid for contract for a Bell J-2 for one year at a cost of \$8224 per month fixed fee plus \$35.29 per flight hour. If the craft were purchased by us (at \$40,000 - \$50,000 used) the fixed charge would be \$6,042 per month

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plus \$13.00 per flying hour. These prices clearly restrict us for the present to our present position of using the existing craft when it is free.

A highly useful alternate method of transportation is by boat. Toward this end, the laboratory has been exploring the utility of various types of boats for close or distant travel, which would be available to us on call. Within the limits of locally available construction, maintenance and docking facilities, we have yet to determine what boat design which would best serve our need for rapid transport to cholera study areas. We have established that it requires three days to cover a study site reached in one hour by helicopter.

Communications

Laboratory communication facilities are markedly deficient. The three floors in the laboratory are served by one telephone line with one extension in the Director's office. Only Dr. Stockard has a telephone in his home. Telephone communication between the laboratory and the dwellings of other key personnel is nonexistent, even though this has been on request for over a year. Every effort is being made to correct this situation and we are, with interest, investigating the field of radio communication to solve not only the local communication problem but also that of maintaining contact with field units; a near impossibility with present communication facilities.

Equipment and Supplies

The laboratory obtains its equipment and supplies from three basic sources - the U.S., the U.K., and locally. Despite an increasing availability of supplies in Dacca, most equipment, especially the more sophisticated items of equipment must be procured in the United States or in the United Kingdom. Both these sources are relatively slow and require that the laboratory maintain a large supply of material on hand in anticipation of possible needs. The system for accounting for our equipment and supplies has been complicated by the lack of familiarity of local personnel with laboratory items

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and with a shortage of warehousing space. These deficiencies are being corrected and proper accounting is being established. A list of major items of equipment received since the last Directing Council is attached (Appendix 1) .

In summary, there have been large strides in correcting deficiencies in administrative requirements but all problems are not resolved.

MAJOR ITEMS OF EQUIPMENT ADDED SINCE FEBRUARY 1962Obtained through Donation by United Kingdom.

1.	Bath, embedding, vacuum, 5½" diameter	1
2.	Cabinet, Microscope slide	2
3.	Centrifuge, Universal, Gallenkamp Model CF 600, with 8 place head	1
4.	Fraction collector, Towers	1
5.	Furnace, Muffle	1
6.	Generator, gas, aerogen, petrol-air	1
7.	Generator, electric, 50 K.W.	1
8.	Microscope Research, Baker Series 4BW	1
9.	Illuminating base, Projectolax w/½ plate camera	1
10.	Microtome, Minot Rotary	1
11.	pH Meter, Pocket	1
12.	Pump Circulating - Stuart	1
13.	Refrigerator, low temp. (-40°C) Cabinet type, 3 cu. ft.	1
14.	Stirrer Magnetic	1

Donated by Australia through SEATO.

1.	Jeep Station Wagon, 1962.	2
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On loan from USAID.

1.	Machine, Duplicating Thermo-Fax	1
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Property of the National Institutes of Health.

1.	Clock, electrical	2
2.	Conductivity Meter and Telethermometer, Solu Bridge, portable	1
3.	Dictating Machine, Norelco	2
4.	Microtit Kit	1
5.	Projector, Beseler model	1
6.	Refrigerators	2
7.	Transformer, Boost Buck, Acme Type - 11680	7
8.	Transformer, Boost Buck, Acme Type 11681	7
9.	Transformer, Powerstat - Type 116	8
10.	Transformer, Powerstat - Type 126	3
11.	Transformer, Powerstat - Type 126 T-2	15

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Local Purchase.

1.	Cabinet, filing	8
2.	Cabinet, R - Dex	3
3.	Rack with animal cages	1
4.	Scale Baby	1
5.	Stand, Intravenous	1
6.	Stethoscope	4
7.	Typewriter	1

Local Purchase.

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PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

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Dacca, East Pakistan
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DC 2/4
15th November, 1962.

FINANCIAL REPORT OF THE DIRECTOR

FINANCIAL REPORT OF THE DIRECTOR

The period since the Laboratory began operations under the present funding arrangement has been largely spent in developing the modus operandi. Because of unavoidable delays, the Auditor was unable to audit our accounts until October, and the report of this most important audit did not arrive until 11th November. Discussion with the Auditor had brought out the need for much sharper definition of those items chargeable to the CRL Operating Fund and those which should be charged to the NIH Research Agreement. Thus, the allocation of expenses to funds presented may be in error; however, the total disbursements from our Rupee Funds are accurately represented.

1. The CRL Operating Fund

a) For operations during the first six months of the year, this fund received a total of Rs 210,000 provided in equal amounts by both the Government of Pakistan and the United States. Expenditures charged to this fund by the laboratory (note discrepancy discussed under Auditor's Report DC 2/5) totalled Rs 74,312.70, leaving an unutilized balance of Rs 135,687.30. Half of this derives from funds which are restricted from use for construction (PL 480, Section 104(R)), and, therefore, only Rs 67,843.65, representing the Government of Pakistan's unrestricted portion, is available for transfer to the CRL Capital Reserve Fund (Par D1e of Revised Agreement), pending resolution of the audit differences (see Annex 1.). A review of expenditures by quarters indicates the increase in work (see Annex 2.).

b) To support operations for fiscal 1963, in accord with the Revised Agreement, Rs 420,000 have been contributed by the Government of Pakistan and the United States. To this is added the portion of the fund and utilized during fiscal 1962 which represents the restricted US contribution. It is anticipated that there will again be a sizeable surplus largely due to the delay in opening the ward.

2. NIH Research Agreement Funds.

a) Rupee Funds. Rs 533,755 were made available for the calendar year by the Research Agreement between the National Institutes of Health and the CRL to support research operations with the objective "to develop, improve and demonstrate measures for the prevention and eventual eradication of cholera". During the period 1 January to 30 June, Rs 40,844.46 were expended, leaving a balance of Rs 492,910.54 at the close of the fiscal year (Annex 3). Quarterly expenditures reflect the increase in research effort (Annex 4).

b) Dollar Funds. By Amendment No. 1., (Annex 5) \$76,000 were made available to the CRL primarily for salaries and travel expenses. This is on deposit in the Bank of Bethesda, Maryland. At the close of the fiscal year, only \$ 281.90 were obligated.

3. CRL Capital Reserve Fund

At the end of the fiscal year this fund consisted of Rs 96,000 contributed by USAID, Rs 92,520,45, contributed by the Government of Pakistan and Rs 634.14 from interest on fixed deposits. The Government of Pakistan had been credited with an additional Rs 5,583 for expenditures on 6 November, 1961 and 3 April 1962 for construction projects on the ward, with which the auditor disagrees. Annex 6 represents the expenditures from this fund and its status at the close of fiscal 1962. By the present time an additional Rs 22,994 have been expended and Rs 12,000 additional committed. Between Rs 67,000 and Rs 83,000 will be transferred when the audit has been reviewed which will leave an operating balance of Rs 146,000 to Rs 162,000. Following are the estimated costs for the work considered necessary as described more fully in the Administrative Report indicating that there will be a deficiency of approximately Rs 96,000 unless another source of funds is found.

Animal House Renovation	Rs 8,000
Stairway	20,000
Alterations to media room and glass washing facilities	7,500
Generator and Utilities Building	20,000
Completion of Apartment	10,000
Completion of Incinerator	2,000
Redesign of 2nd and 3rd floors	100,000
Installation of Elevator	75,000

4. United Kingdom Fund

During the fiscal year 1961 to 1962 the Government of the United Kingdom had allocated £10,000 for the purchase of items of equipment which still are arriving at the Laboratory. Of this amount, £6580.9.4 has been expended and the remainder has lapsed. £10,000 has been allocated for the current fiscal year; no detailed information on expenditures against this fund is available to us, but we have been advised that £7,500 will be available for purchase of supplies and equipment.

5. SEATO NIH Cholera Research Fund.

This fund is allocated to the National Institutes of Health for the support of cholera studies throughout the world. It is administered by the Chairman of the NIH Cholera Advisory Committee who has provided us with the following summary budget and expenditure table for the monies referring to the Pakistan project.

PAKISTAN PROJECT

BUDGET AND EXPENDITURES

	<u>Allocation until 6/30/63</u>	<u>Obligated as of 9/30/62</u>	<u>Balance</u>
Laboratory supplies	\$90,000	\$38,894	\$51,106
Equipment (laboratory, automotive, office)	78,000	73,606	4,394
Transportation costs	37,000	27,434	9,566
Personnel costs and contract services	102,000 plus 25,000 *	110,406	16,594
Travel and per diem of senior staff from Dacca to U. S. and return	10,000	-	10,000
Travel, per diem, and fees of special consultants and visiting investiga- tors to Dacca	40,000	30,029	9,971
Miscellaneous (printing, communications, etc.)	5,000	138	4,862
	<u>\$387,000</u>	<u>\$280,507</u>	<u>\$106,493</u>

* \$25,000 to be transferred November 1, 1962 from SEATO-AID-NIH Cholera Fund item " Cholera Conference "

It is to be noted that CRL holds nonexpendable property belonging to the NIH with a total purchase value of \$ 55,690. This represents purchase prices and does not reflect the freight charges which are shown separately in the accounting above. In addition, as noted previously, a large amount of US Surplus equipment, with an estimated present value of \$ 70,000, has been provided to the laboratory for its use.

6. Other support by the US National Institutes of Health.

It is to be noted that salaries of most of the US personnel have been covered by Iteramural agencies of the National Institutes of Health. During fiscal 1961 and the first half of 1962, all personnel were carried on the budget of the National Heart Institute; for 1962, the salary of Mr. Townsend was transferred to the Office of International Research. Relevant information provided by the NIH follows:-

	FY 1961 NHI	FY 1962 NHI OIR	FY 1963 (est.) NHI OIR
Personnel costs	\$13,802	\$44,011 \$4,725	\$48,500 \$ 9,920
Travel	*	7,930 880/	5,500 0
Transportation & House- hold effects	*	10,413 755	6,000 0
Other expenses	*	745	
Total	\$13,802	\$63,129 \$11,360/	\$60,000 \$ 9,920

* Records not available
/ Plus NIH rupees 5,500

It is to be noted that the Director currently is not paid from NIH funds but is a direct employee of the laboratory with his salary coming from the Research Agreement Fund.

7. The USAID Trust Fund

This continues to cover the expenses to AID support to CRL, which, according to paragraph D.3., of the Revised Agreement, "shall include the living accomodation and other support as for regular AID employees to the CRL's US personnel, and gasoline, oil and maintenance for the vehicles of the CRL". The specific amount expended is not available to us.

8. Other Government of Pakistan Contributions.

Although not available ~~not available~~ in concrete numbers, a most important contribution of the Government of Pakistan is the provision to the CRL of a part of their physical space in the Institute of Public Health. In addition, the Government of Pakistan pays the operating costs for utilities; this is undoubtedly a sizeable amount when one considers the high cost of electric power and

the large amount of electrical equipment in use in the CRL

Summary

In summary, the CRL is financially solvent; its only foreseeable shortage is in funds available for construction or capital improvement. The availability of rupees, dollars and pounds provides full latitude for purchase of any supplies or equipment needed.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Annex 1
DC 2/4

CRL OPERATING FUND

STATEMENT OF EXPENDITURES FOR JANUARY 1, TO JUNE 30, 1962
AND FUND STATUS AS ON JULY 1, 1962.

Particulars	Amount in Rs
<u>CRL Operating Fund</u>	
Contribution by Government of East Pakistan	105,000.00
Contribution by US PL 480 (Sec.104K)	<u>105,000.00</u>
	210,000.00
<u>Disbursement</u>	
Salaries and Wages	41,656.82
Supplies and Materials	13,718.62
Transportation of things	1,972.90
Rental and Utilities	-
Communication	1,099.53
Contractual Expenses	2,175.00
Travel Expenses	6,300.58
Equipment	5,522.87
Indirect and Overhead Cost	<u>1,866.38</u>
	74,312.70
Total unutilized balance of the operating fund as at July 1, 1962 :	<u><u>135,687.30</u></u>
US Share of unutilized balance	67,843.65
GOEP Share of unutilized balance	67,843.65

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

CRL OPERATING FUND

STATEMENT OF QUARTERLY EXPENDITURES
JANUARY 1962 - SEPTEMBER 1962

<u>Particulars</u>	<u>3rd Quarter 1962</u>	<u>4th Quarter 1962</u>	<u>1st Quarter 1963</u>
1. Salaries & Wages	18,692.27	22,964.55	23,971.34
2. Supplies and Materials	6,055.26	7,663.36	10,367.10
3. Transportation of things	656.52	1,316.38	427.75
4. Rental and Utilities	-	-	-
5. Communications	717.18	382.35	941.35
6. Contractual Expense	735.00	1,440.00	-
7. Travel Expense	16.00	6,284.58	631.92
8. Equipment	3,047.12	2,475.75	1,245.25
9. Indirect and Overhead cost	804.85	1,061.53	3,364.34
Total :	<u>30,624.20</u>	<u>43,588.50</u>	<u>40,975.05</u>
Cumulative Total	... <u>30,624.20</u>	<u>74,212.70</u>	<u>151,187.75</u>

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

NIH RESEARCH AGREEMENT FUND

STATEMENT OF EXPENDITURES FOR JANUARY 1, TO JUNE 30, 1962
AND FUND STATUS ON JULY 1, 1962, AS
RECALCULATED

Particulars	Amount
Received Rupees (for period January 1 to December 31, 1962.	Rs 533,755.00
<u>Rupee Disbursement</u>	
Salaries and Wages	Rs 32,344.31
Supplies and Materials	1,040.65
Transportation of things	-
Rentals and Utilities	-
Communication	-
Contractual Expenses	-
Travel Expense	7,459.50
Equipment	-
Indirect and Overhead Cost	-
Miscellaneous	-
	Rs 40,844.46
Balance on July 1, 1962 :	Rs. 492.910.54

Particulars	Amount
Received Dollars	\$ 76,000.00
<u>Committed</u>	
Salaries and Wages	\$ 141.90
Travel Expenses	140.00
	\$ 281.90
Balance :	\$ 75,718.10

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

NIH RESEARCH AGREEMENT FUND

STATEMENT OF QUARTERLY EXPENDITURES
JANUARY 1962 TO SEPTEMBER 1962

<u>Particulars</u>	<u>3rd Quarter 1962</u>	<u>4th Quarter 1962</u>	<u>1st Quarter 1963</u>
1. Salaries and Wages	14,716.04	17,628.27	61,068.15
2. Supplies and materials	834.95	205.70	386.31
3. Transportation of things	-	-	27.86
4. Rental and Utilities	-	-	-
5. Communication	-	-	-
6. Contractual Expense	-	-	-
7. Travel Expense	33.62	7,425.88	8,702.37
8. Equipment	-	-	1,720.50
9. Indirect and Overhead cost	-	-	96.00
Total :	<u>15,584.61</u>	<u>25,259.85</u>	<u>72,001.19</u>
		<u>40,844.46</u>	<u>112,845.65</u>

AMENDMENT NO. 1

United States Government
Department of Health, Education, and Welfare
Public Health Service -- National Institutes of Health

An Agreement Providing for the Conduct of Research
Under Section 104 (k) of Public Law 480, 83rd Congress

Agreement No. 196802

Parties to the Agreement:

1. The National Institutes of Health, Bethesda 14, Md., U. S. A.
2. Pakistan-SEATO Cholera Research Laboratory, Dacca, East Pakistan.

The basic collaborative research agreement No. 196802 is amended as shown on the attached page.

Effective Period of the Agreement: November 1, 1961 to October 31, 1963

Funds to be Provided during Period of Agreement: 1,700,000 Pakistan rupees.

National Institutes of Health

Collaborating Institution

Project (Signed)
Officer Joseph E. Smadel, M. D.

Pakistan-SEATO Cholera Research Laboratory
(Name of Institution)

Dacca, East Pakistan
(Address)

Laboratory Lab. of Virology and
& Institute Rickettsiology
Division of Biologics Standards

(Signed)

Robert S. Gordon, Jr., M.D.
(Name of Principal Investigator)

Authorizing (Signed)
NIH Official James A. Shannon, M. D.
Director, NIH

Title: Director, Pakistan-SEATO Cholera
Research Laboratory

Address where work will be performed:
Pakistan-SEATO Cholera Research
Laboratory, Dacca, East Pakistan

Payee or Financial
Officer Director, CRL

Authorizing Director, Pakistan - SEATO
Official: Cholera Research Laboratory

Revisions of Agreement No. 196802

I 2 - Change to read: The NIH agrees to make payment in local currency to an amount not to exceed 1,700,000 Pakistan rupees for the performance of this research by the Cholera Research Laboratory to be paid as provided for hereinafter. In addition, the NIH will provide \$76,000 U. S. as identified in the budget plan, Section IV. The Cholera Research Laboratory agrees to carry out the research activities set forth in Section II in accordance with the terms and conditions hereinafter specified, and to accept payment in the amount and type of currency specified.

II 4 - Add:

- e. To provide dollar currency in limited and specified amounts for salaries of non-Pakistani scientists who are essential to the clinical, immunological, or epidemiological investigations and who are not seconded from other agencies. In addition, certain dollar funds may be made available for the direct purchase by the CRL of essential equipment and supplies that cannot be purchased on the local market.

IV 1 - Change to read: It is mutually agreed that the Cholera Research Laboratory shall be paid in Pakistan rupees and, in certain specified instances, in U. S. dollars, for the cost incurred, as accepted by the NIH, in carrying out the research activities described in Section II of this agreement. The maximum payment by the NIH to the Cholera Research Laboratory under this agreement shall not exceed 1,700,000 Pakistan rupees and \$76,000 U. S.

IV 3 - Add:

PART C

U. S. Dollar Support

a. Salaries and Wages of Professional Staff (not to exceed two positions)	\$45,000
b. Materials and Supplies	10,000
c. Travel Expenses	7,000
d. Equipment	14,000
	<u>\$76,000 U.S.</u>

V 1 - Change to read:

Advance Payment: Upon signing of this Agreement by both parties, the NIH will make a payment to the Cholera Research Laboratory to begin this program in the amount of 743,755 Pakistan rupees for the period January 1, 1962 to December 31, 1962. The U. S. dollars will be advanced as required.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

CAPITAL RESERVE FUND

STATEMENT OF EXPENDITURES FROM JANUARY 1, 1962 TO JUNE 30, 1962
AND FUND STATUS AS ON JULY 1, 1962

Particulars	A	m	o	u	n	t
1. Contributions from GOEP						
a. 6.11.61 : For sanitary fittings and installation of machinery and additional power wiring (Rs 847/- & 2056/-)	Rs	2,903.00				
b. 3. 4.62 : For improvement of 20 bed ward	Rs	2,680.00				
c. 18. 4.62 : From Government of East Pakistan by cheque	Rs	92,520.45				Rs 98,103.45
2. Contribution from US/AID - April 27, 1962						Rs 96,000.00
3. Interest on Fixed Deposits						Rs 634.14
<u>Expenditures</u>						<u>Rs 194,737.59</u>
1. 6.11.61 : Installation of equipment for Water Laboratories	Rs	2,903.00				
2. 15. 3.62 : Installation of Air-conditioners	Rs	4,534.00				
3. 3. 4.62 : Renovation of 20 bed ward	Rs	2,680.00				
4. 26. 5.62 : Construction of Wash House and added alterations of ward	Rs	61,856.00				
5. 12. 6.62 : Provision of power wiring to Clinical Research Section and ward laboratories	Rs	8,329.00				Rs 80,352.00
Balance as of June 30, '62:	Rs	114,385.59				<u>Rs 114,385.59</u>
<u>Expenditures subsequent to June 30, 1962</u>						
1. Renovation of main electric line	Rs	1,975.00				
2. Construction of Incinerator base and installation of fume hood	Rs	1,375.00				
3. Ventilating, Fly proofing and Plumbing Ward and wash House	Rs	19,144.00				Rs 22,994.00
Uncommitted Balance on November 15, 1961	Rs	91,391.59				<u>Rs 91,391.59</u>

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15 - 16, 1962.

DC 2/5
15th November, 1962.

AUDITOR'S REPORT & DIRECTOR'S COMMENTS

DC 2/5

16th November, 1962.

A U D I T O R ' S R E P O R T

Enclosed herewith (Annex 1.) is a copy of Audit Report No. 817 prepared by the office of the AD/Controller, AID Karachi, covering the financial operations of the Pakistan-SEATO Cholera Research Laboratory during the period October 14, 1960 through September 30, 1962. This audit was physically accomplished during the period October 1 to October 22, 1962.

The following comments are offered on the specific recommendations therein:-

Recommendation No. 1. suggests that the Government of Pakistan provide the Directing Council with a certified statement of allocation and expenditures incurred by the Government of Pakistan on the capital development of the building occupied by the Cholera Research Laboratory. This is desirable in order to accurately establish the total cost of this project.

Recommendation No. 2 is that Rs 82,728.16 representing the residue of the Government of Pakistan's contribution to the Cholera Research Laboratory Operating Fund be reported to the Directing Council for transfer to the CRL Capital Reserve Fund. This figure is based on a re-casting of the expenses charged to the separate funds available to the CRL. Action on this item is contingent on the decision of the Directing Council with respect to Recommendation No. 3.

Recommendation No. 3 is that the CRL establish our books of account in accordance with the budget head of accounts. This has been accomplished and each expenditure from our funds from January 1, 1962 onward has been reviewed and charged to the appropriate fund and account in light of the definition of proper charges against these funds contained in the Agreement dated December 30, 1961, and the Research Agreement No. 196802 with the NIH. This breakdown, using the budget headings given in the NIH Research Agreement fund allocations, provides revised sheets of operating fund expenditures in place of exhibit C, D and E (see Annex 1, 2 and 3 of the Director's Financial Report, DC 2/4), considered by us to be a more proper allocation of disbursements. By these figures there remained in the General Operating Fund on July 1, 1962 a balance of Rs 67,843.64, which represents the Government of Pakistan's share of unutilized balance which should be transferred to the CRL Reserve Fund instead of the sum specified in Recommendation No. 2. This discrepancy must be resolved and action toward this end has been initiated. It is recommended that the Directing Council approve the transfer of the sum finally arrived at by AID and CRL after review once more of these expenditures.

Recommendation No 4 that the Directing Council determine the proper disposition of interests earned on fixed deposits of project funds, is covered in the Financial Regulations drawn up by the laboratory and presented for approval to the Directing Council.

Recommendation No 5 raised the question of the authorization for the payment of post differential to the Director of the laboratory and the consultation fee to Dr. Monsur. These apparently were considered by the Auditor to represent charges against the Operating Fund. The payment of post differential from NIH funds is authorized by a memorandum dated 29 March, 1962, from Dr. J.E. Smadel, the NIH Project Officer, to Mr. R. Eugene Wolfe, the Acting Deputy Director for Operations, Office of Personnel Administration, AID/Washington, which stipulates Dr. Benenson's salary "plus a 25% differential which will be made available in rupees supplied to the CRL from PL-480 funds appropriated to NIH". The consultant's fee to Dr. Monsur is considered properly chargeable against the annual budget for salaries and wages and can be included among the responsibilities of the Cholera Research Laboratory "to invest prudently in carefully planned investigations of the type described in Sections II.2. above", (Section II, 3. of Research Agreement No. 196802). Therefore, no action seems to be indicated at present.

Recommendation No. 6 points out the USAID/P has contributed an amount of Rs 3,479.55 more than the Government of Pakistan's contribution to the Capital Reserve Fund. This calls for USAID action; no present action by the Directing Council is indicated. However, it should be noted that, while the Government of Pakistan only contributed Rs 92,520.45 in cash, they were credited by the Director of the Cholera Research Laboratory with an additional Rs 2,903.00 paid for installation of equipment in the water laboratories on 6 November, 1961 and Rs 2,680.00 paid for work on the ward on 3 April, 1962.

Recommendation No. 7 is that the Directing Council require the laboratory to establish and maintain adequate records to effect utilization of the Dollar funds allocated to the project. Adequate records are maintained by the laboratory to effect the utilization of these funds which have been allocated to this project - namely \$ 76,000 provided under Amendment No. 1 to Agreement No. 196802. The total of \$ 362,000.00 cited by the Auditor represents money allocated to and administered by the National Institutes of Health and held as the SEATO-AID-NIH Cholera Fund which is used for cholera studies in any part of the world. Those portions expended in support of the CRL are reported to us and shown in the Director's Financial Report.

Recommendation No. 8 proposes that adequate records be established to reflect utilization of funds contributed by the United Kingdom including adequate property records. Accounting for the United Kingdom funds had been requested through the British Deputy High Commissioner in Dacca but no information has been provided as of 12th November, 1962. The Director of the laboratory proposes to visit the United Kingdom early in December and, with the assistance of the United Kingdom representative to the Directing Council, hopes that a working arrangement can be established to provide adequate records as recommended.

Recommendation No. 9 is that adequate records be established and maintained to properly reflect that CRL local purchases of substantial value (over \$ 100,00) are made on a competitive bid basis. This provision is incorporated in Par. 5.1., of the CRL Financial Regulations presented to the Directing Council.

Recommendation No. 10 provides that the laboratory establish adequate property accounting records. This need is recognized and action is underway to establish such records.

Recommendation No. 11 requests that the NIH submit to the project complete information regarding the cost of commodities, amount of freight and other charges paid on shipments to Dacca since inception of the project to enable CRL to establish adequate property accountability records. It appears that the Auditor is not clear on the status of the NIH equipment; this equipment is not the property of CRL but remains the property of the National Institutes of Health and is carried on their inventory. The CRL has custody of this property and for this reason we are provided with an inventory list of this non-expendable property. The cost of the commodities purchased for the laboratory, the amount of freight and other charges paid on shipments to Dacca are made available to us and are shown in the Director's Financial Report.

Recommendation No. 12 suggests that the Technical Committee review the activities of the Water Laboratory for the purpose of determining whether a foreign technician is necessary for adequate and proper operation. This matter has been discussed in the Director's Administrative Report; it was considered at great length by the Technical Committee with the conclusion that a properly qualified foreign technician would be most desirable but no such technician has been found to date despite energetic recruitment measures in the United Kingdom, the United States, New Zealand and Australia.

It is deplorable that this audit did not become available to the laboratory before 11 November, making it impossible to clarify any of the dubious issues prior to this Meeting of the Directing Council. However, the differences of opinion have been discussed with the Dacca office of AID which is initiating action toward their expeditious resolution. The audit was requested on 28 February, 1962; to obviate such a delay in future, the Director recommends to the Directing Council that it formally requests that appropriate arrangements be made for the annual audit to be performed between 15 July and 15 August of each year. It would appear desirable that the audit continue to be conducted by the audit branch of USAID.

Agency for International Development
UNITED STATES A.I.D. MISSION TO PAKISTAN

OFFICE OF THE AD/CONTROLLER
KARACHI, PAKISTAN

AUDIT OF
Project No.391-M-51-AC
PAKISTAN - SEATO CHOLERA RESEARCH LABORATORY
Period Covered: October 14, 1960 through
September 30, 1962.

Audit Branch
November 9, 1962
Report No. 817

I N D E X

Project No.391-M-51-AC
PAKISTAN - SEATO CHOLERA RESEARCH LABORATORY

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E X H I B I T S

- "A" - Statement showing expenditures from Trust Fund - August 1961 through December 31, 1961.
- "B" - Statement showing total rupee funds received by CRL from various agencies and amount expended by CRL - January 1, 1962 through September 30, 1962.
- "C" - Statement showing status of project operating fund and expenditures - January 1, 1962 through June 30, 1962.
- "D" - Statement showing status of project operating fund and expenditures - July 1, 1962 through September 30, 1962.
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Project No.391-M-51-AC
PAKISTAN - SEATO CHOLERA RESEARCH LABORATORY

I - SCOPE OF EXAMINATION

The Pakistan - SEATO Cholera Research Laboratory (CRL) East Pakistan requested US A.I.D./P to "undertake the audit of the financial activities of the Pakistan - SEATO Cholera Research Laboratory." This request had the approval of the Directing Council of CRL. The Director, CRL, suggested: "Although funds will become available to the laboratory from several different governments, there should be only one audit of all funds regardless of its sources". Accordingly this examination was conducted from October 1 to October 22, 1962, and covered the period from October 14, 1960 the date of the first agreement with Government of Pakistan (GOP), through September 30, 1962.

The examination was conducted in accordance with generally accepted auditing standards implemented by Assistant Director/Controller's (AD/C) office as prescribed by A.I.D./W Manual Order 704 series and included a review of accounting records relating to financing, procurement, arrival and utilization of commodities. Physical verification of the utilization of commodities was made and storage facilities were inspected. Interviews were held with various CRL officials including Chairman, Dr. A.S. Benenson, Director, Mr. R.S. Townsend, Executive Officer, and Dr. J. E. Smadel, Chairman of the Cholera Research Advisory Committee of the National Institutes of Health (NIH) who happened to be in Dacca at the time of the audit.

A review of project progress and field achievements set forth in the terms of the agreements was not performed as the CRL Project Director considered the evaluation of achievement a responsibility of the Technical Committee of CRL and not within the scope of audit of US A.I.D./P.

II - GENERAL COMMENTS

On May 29, 1959, an agreement was entered into between the Government of the United States of America (USA) and South East Asia Treaty Organization (SEATO) by which the USA made available \$400,000.00 to finance a Cholera Research Project to be carried out by the NIH of the Public Health Service of the Department of Health, Education and Welfare.

The NIH appointed a Cholera Research Advisory Team to visit the cholera affected countries of South East Asia during the second half of 1959. This Advisory Team recommended that a base for a clinical laboratory and field studies of cholera and other acute diarrheal diseases be established at Dacca, East Pakistan, during 1960.

An agreement was entered into on October 14, 1960, amended on July 28, 1961, and subsequently revised on December 30, 1961, between the GOP and A.I.D. for a project to be carried out in Pakistan as part of the overall cholera research program being developed by the NIH under the SEATO agreement of May 29, 1959, to be called the Cholera Research Laboratory. Subject to availability of funds, this agreement is to continue through June 30, 1964.

A.I.D. agreed on July 22, 1960 to allocate \$227,500.00 for this project from the funds made available by the agreement of May 29, 1959. This amount was increased to \$362,000.00 during FY 1962. These funds are to be used for the purchase of supplies and equipment to be imported and for other commitments which cannot be paid in local currencies.

Rupee financing of the project is as follows:

1. A.I.D. agreed to provide operating costs from the trust Fund from August 1961 through December 31, 1961. The US also agreed to provide Rs. 210,000.00 annually to the CRL Operating Fund from PL 480, Section 104(k), during FY 1962 and 1963 and to match GOP contributions to the CRL Capital Reserve Fund. In addition the agreement requires A.I.D. to provide living accommodations, gasoline, oil and maintenance of vehicles of CRL and other support as for regular A.I.D. employees to CRL US employees. To provide for the contributions to the General Operating Fund, Agreement, No. 196802 dated January 25, 1962, was signed between NIH and the Director CRL for the conduct of research using funds from Section 104(k) of PL 480. The agreement listed the specific purposes for which this money was to be used. These included, but were not limited to, the following: integrating the use of the funds with the activities of CRL; utilizing the funds for training of workers in cholera research and prevention; developing field demonstration areas; providing materials and supplies available on the local market, etc.
2. GOP agreed to provide Rs. 210,000.00 for FY 1961-1962 and the same amount for FY 1962-1963 to the CRL General Operating Fund. It was also agreed that GOP would contribute Rs. 96,000.00 to the CRL Capital Reserve Fund. GOP was allowed to contribute this amount from the unspent balance of Rs. 105,000.00 contributed to the Operating Fund for the first half of FY 1961-1962. GOP also previously agreed to provide Rs. 220,000.00 for the cost of remodelling the rooms at the Institutes of Public Health for CRL use under the October 14, 1960 agreement.

Although no other contributions are specified in the agreements, the United Kingdom (UK) has offered to supply equipment up to a cost of £10,000.00 and to make available an additional sum of £10,000.00 to be used to support two technicians on the project. The Government of Australia is to supply two jeep station wagons for use on the project.

Exhibit "B" of this report is a summary statement of rupee contributions, disbursements and balances for the period January 1, 1962 through September 30, 1962.

III - SUMMARY OF FINDINGS AND RECOMMENDATIONS

The examination revealed that the operation of various funds by the project is not satisfactory for the reasons set forth in items C through M of the major findings listed below:

- A. As per agreement dated December 30, 1961, expenditures for the operating costs of CRL from inception to December 31, 1961 were met from the rupee Trust Account. Total expenditures incurred during this period, through a revolving fund of Rs. 30,000.00 established for this purpose, was Rs. 117,879.51 (see finding A.1 page 4).
- B. An amount of Rs. 168,115.09 was also expended from the rupee Trust Account on administrative support for CRL from inception of the project through September 30, 1962 (see finding A.2 page 5).
- C. GOP has not provided a statement of expenditures on the capital development of the building occupied by the project, nor would GOP allow the auditor to examine its records (see finding A.3 pages 5-6 and recommendation No. 1 page 6).
- D. Rs. 82,728.16 has been determined by audit as the unexpended balance of GOP's contribution to CRL General Operating Fund for FY 1961-1962 which, in accordance with the agreement dated December 30, 1961, should be credited to the Capital Reserve Fund (see finding A.4 pages 6-7 and recommendation No. 2 page 7).
- E. CRL books of account are not in accordance with the budget plan (see finding A.4 pages 6-7 and recommendation No. 3 page 7).
- F. Rs. 11,371.58 has been earned by the project on account of interest on fixed deposits but determination of disposition of such earnings has not yet been made (see finding A.4 pages 6-7 and recommendation No. 4 page 8).

- G. Payments for post differential and consultation fee have been paid from the CRL General Operating Fund although not authorized by the agreement dated December 30, 1961 (see finding A.4 pages 6-7 and recommendation No. 5 and page 8).
- H. US A.I.D./P has contributed to the CRL Capital Reserve Fund an amount of Rs. 3,479.55 more than that required by agreement (see finding A.5 page 8 and recommendation No. 6 page 8).
- I. Project records do not adequately reflect the utilization of dollar funds (see finding B page 9 and recommendation No. 7 page 9).
- J. No accounts were maintained by CRL to reflect the utilization of funds contributed by the UK (see finding C page 9 and recommendation No. 8 page 9).
- K. It could not be substantiated whether local purchases had been made on a competitive bid basis (see finding D pages 9-10 and recommendation No. 9 page 10).
- L. The project has not maintained adequate property accounting records (see finding E.1 and 2 pages 10-11 recommendation No. 10 page 10 and recommendation No. 11 page 11).
- M. A water technician has not been recruited for the water laboratory (see finding F page 11 and recommendation No. 12 page 11).

IV - ACTIVITIES OPERATION AND PROGRAMS REVIEWED

A. Rupee Financing

1. Trust Fund Operation Cost

Under Article E(4) of the agreement dated December 30, 1961 entered into between A.I.D. and GOP it was agreed that the operating costs of the laboratory shall be paid from the rupee Trust Fund from August 16, 1961, until December 31, 1961.

On August 16, 1961 US A.I.D./Dacca advanced to the CRL an amount of Rs. 30,000.00 as an operational revolving fund.

Final accounting to US A.I.D./Dacca for the revolving fund, was accomplished on April 10, 1962. Total obligations incurred from August 16, 1961 through December 31, 1961 from this fund amounted to Rs. 117,879.51. This amount includes Rs. 112,147.07 of actual expenditures and Rs. 5,732.44 of accounts payable at December 31, 1961. Details of the expenditures are included as Exhibit "A" of this report.

2. Trust Fund - Administrative Support by US A.I.D./Dacca

The following table reflects the total amount expended by US A.I.D./P and the American Consulate General, Dacca on behalf of US A.I.D./P for administrative support of CRL's US personnel from inception to September 30, 1962. Payments of post allowance by US A.I.D./P was checked on a test basis. This revealed that Mr. R. S. Townsend, entitled to a post allowance of \$21.92, is being paid at \$16.80 per pay period. The rate of \$16.80 is being paid on the basis of "without family" allowance schedule whereas Mr. Townsend has been entitled to "with family" rate since June 1962.

The following is the summarized list of expenditures incurred on the CRL's administrative support from inception to September 30, 1962:

<u>Category</u>	<u>Disbursements</u>
Education	Rs. 1,652.00
Post allowance	21,019.57
Transportation of HHE	5,175.35
Local travel	19,566.88
House Rent and utilities	106,563.65
Maintenance of vehicles including gasoline	14,137.64
TOTAL	Rs. 168,115.09

3. GOP Contribution for Capital Development

The agreement dated October 14, 1960 required GOP to provide an amount not to exceed Rs. 220,000.00 for the cost of necessary remodelling of the rooms and installation of laboratory equipment, at the Institute of Public Health, to be used for the Pakistan - SEATO Cholera Research Laboratory.

A verification could not be made to determine the amount of the expenditures incurred by GOP for this work as the project had no record to reflect either GOP rupee allocation or expenditures made on the capital development of the building housing the project. Dr. K.A. Monsur, Director, Institute of Public Health, Government of East Pakistan (GOEP) the custodian of GOP allocation for capital development was contacted but he did not consent to the examination of GOP records by the US A.I.D./P auditor on the basis that the right of audit is reserved for government auditors only.

Information regarding GOP allocation and expenditures, collected by the project staff, for their Directing Council's meeting, held on

February 26, 1962, indicated that GOP had made an allocation of Rs. 320,000.00 for the period July 1, 1960 through June 30, 1961 of which Rs. 309,713.00 was expended. No indication was available as to the cut off date of the above expenditures.

Recommendation No. 1

GOP Action

Provide the Directing Council with a certified statement of allocation and expenditures incurred by the GOP on the capital development of the building occupied by the project.

4. General Operating and Research Funds

Article E-2 of the agreement dated December 30, 1961 provided that for the FYs 1962 and 1963, the CRL General Operating Fund shall consist of not less than Rs. 420,000.00 for each FY, the GOP and USA to contribute Rs. 210,000.00 each. The pooled fund is to support the basic operation of the CRL and a portion of the research it undertakes.

Under PL 480, Section 104(k) agreement, dated January 25, 1962 NIH agreed to make payment in local currency in an amount not to exceed Rs. 1,700,000.00 for the period January 1, 1962 through December 31, 1963. Of this amount Rs. 743,755.00 was received by the project to cover the period January 1, 1962 through December 31, 1962. Rs. 210,000.00 of the above amount was earmarked for the support of the CRL General Operating Fund and the balance of Rs. 533,755.00 for expanding the scope of cholera investigation.

During FY 1961-1962, GOP contributed to the CRL Operating Fund an amount of Rs. 197,520.45 in cash and reported expenditures of Rs. 12,479.55 on project operations during the first half of FY 1961-1962, making a total contribution for FY 1961-1962 by GOP of the agreed amount of Rs. 210,000.00. In accordance with the agreement, GOP also contributed Rs. 210,000.00 during FY 1962-1963.

Exhibit "B" attached reflects the audited status of funds advanced by the various agencies and amount utilized from January 1, 1962 through September 30, 1962.

The project accounting records did not adequately reflect the allocation of expenditures on operation and research as required by the various agreements.

Rupee expenditures were recast by the auditor according to the budget plan included in the NIH/CRL agreement, to determine the residue of GOP FY 1961-1962 contribution in the CRL General Operating Fund. Exhibits "C", "D" and "E", attached, reflect the details of the expenditures.

CRL operating costs for the period January 1, 1962 through June 30, 1962 amounted to Rs. 44,543.67 against the total contribution of GOP and NIH of Rs. 210,000.00 leaving an unutilized balance of Rs. 165,456.33.

One half of the unutilized balance (Rs. 82,728.16) should be considered as the unexpended balance of GOP contribution for the second half of FY 1961-1962 and should be reported to the Directing Council for transfer to the Capital Reserve Fund. The remaining one half (Rs. 82,728.17) should be considered as the unexpended balance of NIH contribution and carried forward to FY 1962-1963 (see Exhibit "D").

An amount of Rs. 11,371.58 was earned during the period January 1 through September 30, 1962 on account of interest on project funds invested in fixed deposits.

Examination of the books of account revealed that the following charges have been paid by the project from its rupee funds, although no provisions exist in the agreements that such charges be paid:

1. Payment of post differential to Dr. A. S. Benenson, Project Director.
2. Payment of consultation fee to Dr. K. A. Monsur, Director, Institute of Public Health, GOEP.

Recommendation No. 2

Project Action

The Rs. 82,728.16, representing the residue of GOP contribution to CRL General Operating Fund for FY 1961-1962, be reported to the Directing Council for transfer to the CRL Capital Reserve Fund.

Recommendation No. 3

Project Action

Establish the CRL books of account in accordance with the budget head of accounts.

Recommendation No. 4

Project Action

The Directing Council be asked for a determination of the proper disposition of the Rs.11,371.58 of interest earned on fixed deposits of project funds and of any future interest so earned.

Recommendation No. 5

Project Action

Consider amending Agreement No. 196802 dated January 25, 1962 to authorize the payment of post differential on a retroactive basis to Dr. Benenson, and consultation fee to Dr. Monsur or have the Directing Council approve such payments.

5. Capital Reserve Fund

Article E-3 of the agreement dated December 30, 1961 states "The initial contribution to the CRL Capital Reserve Fund shall come from: (a) the GOP in the amount of Rs.96,000.00. This may come from the unspent balance of Rs.105,000.00 for the first half of FY 1961-1962 in which case the total financial responsibility of the GOP for FY 1961-1962 will not exceed Rs.210,000.00"

"(b) The A.I.D. in an amount equal to that contributed to the CRL Capital Reserve Fund by GOP in FY 1961-1962"

A.I.D. released Rs.96,000.00 on February 23, 1962 under Section 104(e) of PL 480, presuming that GOP contribution would be an equivalent amount.

As GOP unexpended balance in the operating fund for the first half of FY 1961-1962 was Rs.92,520.45 only this amount was transferred to the Capital Reserve Fund making a difference of Rs.3,479.55 between GOP and A.I.D. contribution.

Recommendation No. 6

US A.I.D./F Action

As US A.I.D./F has contributed an amount of Rs.3,479.55 more than GOP contribution to the Capital Reserve Fund, a determination should be made to either have this amount refunded to US A.I.D./F or an appropriate adjustment be made against the next release to this project.

B. Dollar Financing

Of the funds made available by the US Government for the Cholera Research Program by the agreement of May 29, 1959, an amount of \$227,500.00 was allocated to this project, to be administered through NIH. This allocation was increased to \$362,000.00 in FY 1962. Information was not available at the project for expenditures incurred by the NIH from the dollar funds allocated.

Recommendation No. 7

Project Action

The Directing Council require the CRL to establish and maintain adequate records to reflect utilization of dollar funds allocated to the project.

C. Other Contributions

In FY 1961, the UK offered equipment up to a cost of £ 10,000.00. The project choice of equipment was communicated to the UK in January 1961. The equipment has begun to arrive but its cost is not known to the project nor have records been established to reflect the utilization of these funds.

At the Directing Council meeting of February 27, 1962, the UK agreed to make available an additional amount of £ 10,000.00 for the support of two technicians to be provided to CRL. As of, September 1962, only one technician, Dr. B. I. Davis, Chief Bacteriologist, had joined the project.

Recommendation No. 8

Project Action

Adequate records be established to reflect the utilization of funds contributed by the UK, including adequate property records.

D. Procurement of local supplies

During the period financing was accomplished from the Trust Fund by A.I.D., the General Services Officer (GSO), American Consulate General, Dacca, negotiated the purchase of all items of substantial value for CRL. All such purchases were effected in accordance with US Government regulations.

After establishment of CRL Operating Fund, a Property and Supply Officer was employed and given procurement responsibilities. Although the Property and Supply Officer stated that all purchases made by CRL have been on a competitive bid basis, no records were available to substantiate that this was so.

Recommendation No. 9

Project Action

Adequate records be established and maintained to properly reflect that CRL local purchases of substantial value (over \$100.00) are made on a competitive bid basis.

E. Property Accounting

1. Local Purchases and Expendable Items

The project has not maintained adequate accounting records to reflect receipts, issues and balances of stock on hand. During a physical verification of the stores, it was not possible to determine the quantity of items utilized by the project or the balances on hand.

According to Section VI paragraph 1 of the agreement between NIH and CRL, the CRL agreed "to keep records of obligations and expenditures, together with receipts, vouchers, correspondence and memorandum associated with funds received and expended in carrying out the research provided for in this agreement".

Recommendation No. 10

Project Action

Establish adequate property accounting records.

2. Non-Expendable Supplies (Dollar)

Dollar procurement of equipment and supplies is administered by the NIH. This equipment is generally purchased from the existing stocks of the US Department of Health, Education and Welfare or from US surplus commodities.

The Property and Supply Officer stated that, due to the lack of complete information regarding cost of the supplies and equipment provided by the NIH, he has not been able to establish a cost statement of commodities supplied.

However, NIH has provided the project with an inventory of the non-expendable property supplied. The property included in the inventory was physically checked and no discrepancies were noted.

Recommendation No. 11

Project Action

NIH should be requested to submit to the project complete information regarding cost of commodities, amount of freight and other charges paid on shipments to Dacca since inception of the project to enable CRL to establish adequate property accountability records.

F. Water Laboratory

On the basis of a recommendation from Mr. James G. Cassanos, Acting Chief, Health and Sanitation Division, and approved by the Director, US A.I.D./F, the water laboratory, established by the Ralph M. Parsons Co., under former project No. 097, was transferred to the CRL on June, 1, 1961. The understanding was that the Director, CRL would hire an American water technician to run the laboratory.

The local personnel who had been employed by the Parsons Co., at the water laboratory have been hired by CRL to continue research work at the laboratory. However, a foreign water technician has not yet been appointed.

Recommendation No. 12

Project Action

The Technical Committee of CRL review the activities of the water laboratory for the purpose of determining whether a foreign technician is necessary for adequate and proper operation and make appropriate recommendations to CRL.

Signed
George A. Harrison
Chief/Audit Branch

PROJECT NO. 391-M-51-AC
PAKISTAN-SEATO CHOLERA RESEARCH-LABORATORY

Exhibit - A
(Activities - A-1
page - 4)

Statement Showing Rupee Expenditures
from Trust Fund - August 1961
through December 31, 1961

Particulars	Amount Expended
	Rs.
Animal Food	100.59
Cartage	31.00
Freight	4,264.36
Laboratory Expenses	12,351.50
Miscellaneous Expenses	327.46
Office Expense	1,422.72
Repair	560.00
Post and Telegraph	261.91
Stationery	2,065.37
Printing	252.00
Salary	26,027.36
Travel Allowance	359.25
Sundry Equipment	28,568.07
Furniture	35,061.70
Deposit with Pakistan Oxygene	400.00
Laundry Expenses	93.78
SUB-TOTAL	Rs. 112,147.07
Bills Pending Final Payment:	
Noor Mohammed & Co.	290.00
Gujrat Steel Mart	5,442.44
TOTAL	<u>Rs. 117,879.51</u>

PROJECT NO. 391-M-51-AC
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Exhibit - B
(Activities A-4
page - 6)

Statement showing total rupee funds received
by CRL from various agencies and amount
expended by CRL - January 1, 1962 through
September 30, 1962

Particulars	Amount	
Contribution by GOP	Rs. 407,520.45	a/
Contribution by NIH	743,755.00	
Contribution by A.I.D.	96,000.00	b/
Interest on Fixed deposits	11,371.58	
Sundry Sale receipt	63.00	
Total Receipt	Rs. <u>1,258,710.03</u>	
<u>Disbursements</u>		
CRL Operating Expenditure	Rs. 73,215.97	c/
CRL Laboratory & Research Expenditure	154,077.93	d/
CRL Capital Expenditure	77,066.38	
Total Disbursement		Rs. 304,360.28
<u>Bank and Cash Balances</u>		
Director CRL Account	Rs. 17,450.08	
CRL General Operating Fund Account	86,565.55	
CRL Capital Reserve Fund Account	15,865.76	
Cash in hand	2,784.32	
Total amount in Bank and Cash		122,665.71
<u>Amount Held in Fixed Deposits</u>		
Director CRL Account	Rs. 441,684.04	
CRL General Operating Fund Account	210,000.00	
CRL Capital Reserve Fund Account	180,000.00	
Total in Fixed Deposit		831,684.04
Grand Total		Rs. <u>1,258,710.03</u>

a/ Excludes Rs.12,479.55 expended by GOF.

b/ Excludes cost of administrative support provided by US A.I.D./Dacca.

c/ See Exhibits C and D

d/ See Exhibit E.

PROJECT NO. 391-M-51-AC
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Exhibit - C
(Activities -A-4
page - 7)

Statement showing status of project
operating fund and expenditures
January 1, 1962 through June 30, 1962

Particulars	Amount
Salaries	Rs. 31,865.61
Office Equipment and Furniture	2,976.73
Printing	759.75
Stationery	2,794.98
Office Expenses	2,657.13
Post & Telegraph	554.39
Cartage	56.85
Miscellaneous	2,343.23
Repairs	535.00
Total Expenditures	Rs. <u>44,543.67</u>

CRL Operating Fund

Contribution by GOP	Rs. 105,000.00
Contribution by NIH (104K)	105,000.00
Total Contribution as of June 30, 1962	Rs. <u>210,000.00</u>
Deduct total expenditure incurred during January 1, 1962 through June 30, 1962	<u>44,543.67</u>
Total unutilized balance of the operating Fund as at June 30, 1962	Rs. <u>165,456.33</u>
NIH Share of unutilized balance	Rs. 82,728.17
GOF Share of unutilized balance	<u>82,728.16</u>

PROJECT NO. 391-M-51-AC
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Exhibit - D
(Activities -A-4
page - 7)

Statement showing status of project
operating fund and expenditures
July 1, 1962 through September 30, 1962

Particulars	Amount
<u>CRL Operating Fund</u>	
Contribution by GOP for the FY 1962-63	Rs. 210,000.00
Contribution by NIH for the first half of 1962-63.	105,000.00
Unspent amount of NIH Contribution for the period January 1, 1962 through June 30, 1962 brought forward	82,728.17
Total Operating Fund as of September 30, 1962	Rs. <u>397,728.17</u>
<u>Expenditure</u>	
Salaries	Rs. 19,773.56
Office Equipment and Furniture	2,535.48
Printing	120.00
Stationery	2,977.28
Travel	260.15
Office Expenses	1,083.49
Post and Telegraph	470.67
Cartage	362.50
Miscellaneous	232.67
Repairs	<u>856.50</u>
Total Expenditures from July 1, 1962 through September 30, 1962.	Rs. <u>28,672.30</u>

PROJECT NO. 391-M-51-AC
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Statement showing status of project
Laboratory and research expenditures
and amount budgeted by NIH
January 1, 1962 through September 30, 1962

<u>Categories of Expenditure</u>	<u>Budgeted by NIH</u>	<u>Disbursed</u>
Salaries and Wages	Rs. 203,250.00	Rs. 90,635.33
Materials and Supplies	60,000.00	14,846.00
Transportation of Things	15,000.00	1,864.61
Rent and Utilities	8,000.00	1,658.69
Communication	1,500.00	1,025.07
Other Contractural Expenses	15,000.00	-
Travel Expenses	92,700.00	39,218.81
Equipment	25,000.00	-
Indirect and overhead cost	13,305.00	2,910.25
Miscellaneous	100,000.00	1,719.17
 TOTAL	 Rs. 533,755.00	 Rs. 154,077.93

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15 - 16, 1962

DC 2/6

16 November 1962

FINANCIAL REGULATIONS.

16 November 1962

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

DC 2/6

FINANCIAL REGULATIONS

1. General Regulations

- 1.1 These regulations govern the financial administration of the Pakistan-SEATO Cholera Research Laboratory. They are supplementary to paragraph C2 of the December 30, 1961 agreement between AID and the Government of Pakistan and incorporate such other authorizations as may have been provided the Director by the Directing Council. The object of these regulations is to assure the application of sound business and accounting principles and practices to the financial operations of this laboratory.
- 1.2 These regulations are modified or amended by the Director, CRL, and these amendments will be effective as of the time of their publication. Confirmation by the Directing Council at their next regular meeting will constitute the authorization if such authorization is not clearly spelled out elsewhere.
- 1.3 The fiscal year covers the period July 1 through June 30 of the following year.
- 1.4 In so far as applicable and not in conflict with any CRL regulation, financial regulations of AID/Dacca will pertain to the operations of the CRL.

2. Budget

- 2.1 The Director prepares an annual budget proposal for the following financial year, accompanied by adequate supporting information, tables, summaries and explanatory statements.
- 2.2 The budget estimates are in Pakistan Rupees for operations within Pakistan. Estimates in other currencies may be used as necessary or appropriate, for support of operations or for purchases in other nations.

(more)

- 2.3 The Director submits the proposed budget to council members at least 30 days in advance of the meeting of the Directing Council at which the budget is to be considered.
- 2.4 The budget plan for the ensuing financial year, when approved by the Directing Council constitutes the authorization to incur obligations against and make payments from amounts contributed to the CRL within the intents and monetary limitations of the budget. The approved budget plan also specifies the contributions of the individual member nations.
- 2.5 Expenditures from a major budgetary category more than ten per cent in excess of the budgeted amount must be approved by the Directing Council; to effect this, justification for the requested change will be submitted to the Chairman of the Directing Council for appropriate action.

3. Financing

- 3.1 The CRL is financed by contributions from member nations represented on the Directing Council of the CRL in the amounts agreed upon at the annual meeting of the Directing Council and also from grants, awards, contracts, gifts, agreements or contributions from any nation or other body, public or private. These are separated into several separate funds, which are held and accounted for separately.
- 3.2 Funds in the possession of the CRL may be placed on fixed deposit. Any interest which may accrue is credited to the account which earns this interest. All funds received by the CRL are available for obligation until exhausted, without regard to fiscal year.
- 3.3 The funds contributed by member nations and from other sources for unspecified use, are deposited into the CRL Operating Fund and after such deposit, they lose their identity. The percentage of the total contributions which represents funds restricted by the laws of the contributing nation from use for capital improvements will be noted at the beginning of the fiscal year. At the close of the fiscal year, the percentage of remaining funds which are not so restricted will be transferred to the Capital Reserve Fund and the amount of the balance which represents restricted funds (using the percentage which pertained at the beginning of the fiscal year) is carried over

as a balance in the Operating Fund for the next year. This amount is then included in calculating the percentage of the operating fund for the following year which represents restricted funds.

- a. A portion of the Operating Fund may be held in the form of petty cash to defray sundry day to day purchases of small value. The amount in this fund does not exceed Rs 5,000 and is replenished on presentation of a schedule of disbursements with receipts or vouchers to support each payment.
- b. The CRL Sterling Fund is technically a part of the CRL Operating Fund, but is held and accounted for separately. This makes available to the CRL a fund from which British personnel obtain their basic salaries, and with which purchases of supplies and equipment within the UK can be effected.

3.4 The CRL Capital Reserve Fund, as specified in the Dec 30, 1961, agreement, may receive money from direct contribution and from transfer to it of the unrestricted and unobligated balance of the CRL Operating Fund at the end of the fiscal year. It is used to finance capital improvements including construction, additions, alterations and renovations to the premises or field installations required for the prosecution of the CRL research program.

3.5 Special funds, such as grants for specific research projects, including the NIH research agreement funds are each held and accounted for separately from other CRL funds. Unspecified donations, gifts, etc., are added to the CRL Operating Fund.

3.6 The Contributory Provident Fund will be maintained in a separate bank account. The CRL contribution to the Provident Fund will come from the fund which pays the salary of the specific employee. Interest accumulated in the Provident Fund is used for the benefit of the employees and does not revert to any of the funds used for the operations of the laboratory.

4. Internal Control.

4.1 An accounting system is maintained using good accounting practice, with the advice of the AID accountants, to make available a current picture of the status of all funds.

(more)

- 4.2 All payments from any fund are supported by appropriate vouchers or other documents to ensure the receipt of the services or goods and that payment has not previously been made. Each disbursement is immediately charged against the appropriate fund and budgetary allocation.
- a. To conform with local practices, advance payment may be made for construction-alteration projects and for procuring rental housing for personnel when ascertained necessary by the Director. When justified by demonstrated need, salary advances may be made to permanent employees.
- 4.3 A running trial balance of each fund and budgetary category is maintained. A balance sheet showing the status of each fund is drawn up as of the first of each calendar month, together with a summary of each expenditure during the preceding month, other than petty cash (small transactions may be composited for accounting).
- 4.4 The Director may authorize the write off of losses such as cash, stores or other assets after full investigation submitted in writing. A statement of all such amounts written off will be included in the records as a voucher against the accounts.

5. Procurement and Accounting for Services and Supplies:

- 5.1 Appropriate precautions are taken to assure that the greatest value has been obtained as economically as possible. This is done by the exercise of proper judgement by those authorized by the Director to effect purchases for the Cholera Research Laboratory.
- a. All disbursements in excess of Rs 500 and under Rs 5000 will be supported by price quotations from three potential vendors or contractors. These may be obtained orally but will be inserted in the record and certified by the individual who obtained them.
- b. Items in excess of Rs 5000 will be supported by an estimate provided in writing by three vendors. In case only one potential vendor or contractor is available the transaction will be approved by the Director.

(more)

- 5.2 Appropriate records are maintained of all items of supply to show the acquisition of new items, the amount present in laboratory stocks, the amount issued and the department or section using them.
- a. All items with an initial purchase cost of over Rs 50, unless specifically excluded by the Director, or such other items as may be designated by the Director are considered to be items of nonexpandable equipment and included within the permanent assets of the laboratory. The location of each item is recorded and adequate measures are taken for its safe keeping. The loss of any such items require either replacement by the responsible individual or the books may be cleared by the Director after adequate investigation indicates that the loss does not represent personal negligence or misconduct.
 - b. Those items of equipment which are lent to the laboratory by other agencies are accounted for in the same way as items purchased by the CRL with clear indication of the property account from which this equipment is borrowed.

6. Audit :

- 6.1 The funds of the CRL are audited at least annually by a qualified auditor selected by the Directing Council or by the Director with the approval of the Directing Council. The auditor, and such assistants as he may require, have access to all accounts, ledgers, inventories or other relevant documents of the CRL.
- 6.2 The auditor furnishes the Directing Council a report on the financial operations of the CRL through the Director of the Laboratory. The Director adds any pertinent comments to the report for the benefit of the Council.

7. Delegation of Authority :

- 7.1 The Director may delegate to other officers such powers as he considers necessary in order to implement these regulations.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15 - 16, 1962

DC 2/7

15 November 1962

PERSONNEL POLICY

November 16, 1962 .

PERSONNEL POLICY
of the
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

The Personnel Policy outlines the general principles, for personnel administration and staffing of the CRL and such cholera research field units as may be created under the aegis of the CRL either in Pakistan or in other countries in the region. The Personnel Regulations which may be promulgated to implement this policy, embody the conditions of service and the duties, obligations and rights of personnel employed by the Pakistan-SEATO Cholera Research Laboratory, (hereinafter the CRL)

Article I

DUTIES, OBLIGATIONS AND PRIVILEGES

- 1.1 The responsibilities of all persons appointed as employees of the CRL are exclusively international. By accepting such appointment they pledge themselves to discharge their duties and to regulate their conduct so as to serve only the best interests of the CRL and its programs.
- 1.2 The Director has authority over the staff of the CRL and will assign duties in keeping with the rank of the individual employee in the CRL.
- 1.3 While in the service of the CRL, employees shall neither seek nor accept instructions from any government or from any other authority external to the CRL, without advance approval of the Director, CRL.
- 1.4 No employee shall accept, hold or engage in any other office, occupation or gainful employment which might interpose in any way with his obligations to the CRL, or might be construed as representing conflict of interests.

- 1.5 Employees shall conduct themselves at all times in a manner compatible with their status as employees of the CRL. They shall avoid any action and in particular any kind of public pronouncement or activity which may adversely reflect on their status or on the CRL. While they are not expected to give up their national sentiments or their political and religious convictions, they shall at all times exercise the reserve and tact incumbent upon them by reason of their international status.
- 1.6 Employees shall exercise the utmost discretion in regard to all matters of official business. They shall not communicate to any person any information known to them, by reason of their official position, which has not been made public, except as authorized by the Director. At no time shall they in any way use to private advantage, information known to them by reason of their official position. These obligations do not cease with termination of employment.
- 1.7 No employee shall accept any favour, gift or remuneration which is related to his employment at CRL from any government or any other source external to the CRL except with the approval of the Director, CRL.
- 1.8 Any immunities and privileges which may be acquired by virtue of employment at the CRL are conferred in the interests of the CRL. These privileges and immunities furnish no excuse to employees for nonperformance of their private obligations or failure to observe laws and police regulations.

Article II

- 2.1 Appropriate provision shall be made by the Director for the classification of posts.

Article III

- 3.1 Pay scales and allowances for indigenous, non-government employees of the CRL will be established at levels comparable to the total salaries received by similar personnel in commercial firms, the U.S. Agency for International Development in Pakistan and other autonomous services.
- 3.2 Salaries of indigenous government employees seconded to the CRL will, so far as possible, be adjusted to a level comparable to that of non-governmental contract employees of the CRL, who have similar qualifications and duties, but will necessarily comply with the terms specified in the deputation order.
- 3.3 The appointment of non indigenous personnel shall be subject to negotiation between the Director and the appointing authority in the appropriate government. Salaries, allowances and other benefits of such personnel may be paid in non Pakistani currency.

Article IV

APPOINTMENT AND PROMOTION

- 4.1 The Director shall appoint personnel as required.
- 4.2 Appointment and promotion of personnel shall be made without regard to race, color, creed or sex. So far as is practicable selection shall be made on a competitive basis using criteria pertinent to the position. In appointing personnel the Director shall be mindful of the requirements of the host government for persons who possess special technical skills.
- 4.3 In filling vacancies, preference shall be given to qualified persons already in the service of the CRL.

- 4.4 The paramount consideration in the appointment, transfer or promotion of the staff shall be the necessity of securing the highest standards of efficiency, competence and integrity. Due regard shall be paid to the desirability of having representation on the staff from all actively participating nations.

Article V

LEAVE

- 5.1 Leave will be granted in accordance with the requirement of the scientific program, the necessity for adequate rest and recreation, and to allow for reasonable sickness and unforeseen emergencies. Normal leaves will be programmed in advance so that the research program will progress with maximum efficiency.

Article VI

SOCIAL SECURITY

- 6.1 Provision shall be made for the participation of employees in a provident fund in accord with the regulations of that fund.

Article VII

TRAVEL AND REMOVAL EXPENSES

- 7.1 The cost of travel within Pakistan in performance of the official business of the CRL and appropriate additional expenses connected with such official travel will be paid by the CRL from its rupee funds. For expenses for travel outside Pakistan, payable only in currencies other than Pakistan Rupees, reimbursement will be made in any appropriate currency.
- 7.2 When, by the terms of appointment, the CRL is to pay the travel expenses of employees and their dependents, travel will be performed only on tickets

furnished by CRL prior to beginning travel. Such travel will normally be:

- a. upon appointment and any change in permanent duty station.
- b. upon taking home leave if provided by terms of appointment.
- c. upon termination of service.

7.3 Subject to the terms of appointment the CRL shall pay movement of household and personal effects for personnel:

- a. upon appointment and on subsequent change of official duty station;
- b. upon separation from service.

Allowances will be based on current AID regulations for movement of AID personnel, or other equivalent regulations for the movement of non U.S. personnel.

Article VIII

SEPARATION FROM SERVICE

- 8.1 Employees may resign from the CRL upon giving the Director the notice required under the terms of the current regulations.
- 8.2 The Director may terminate the appointment of an employee;
 - a. in accordance with the terms of his appointment,
 - b. if the necessities of the service require abolition of the post or reduction of the staff,
 - c. if the services of the individual concerned prove unsatisfactory,
 - d. if he is, for reasons of health, incapacitated for further service.
- 8.3 If the Director terminates an appointment, the employee shall be given appropriate notice.

Article IX

DISCIPLINARY MEASURES

- 9.1 The Director may impose disciplinary measures on employees whose conduct is unsatisfactory. He may summarily dismiss a member of the staff for serious misconduct.
- 9.2 The Director shall establish administrative machinery with staff participation to advise him on any appeal by an employee against an administrative decision alleging the non-observance of their terms of appointment, including all pertinent regulations and rules or against disciplinary action.
- 9.3 Any dispute which cannot be resolved informally, arising between a supervisor and an employee regarding his employment shall be referred for final decision to a personnel board appointed by the Director.

Article X

GENERAL PROVISIONS

- 10.1 These Regulations may be supplemented or amended but not with retroactive application prejudicial to the rights of the employees.
- 10.2 The Director may delegate to other personnel such of his powers as he considers necessary for the effective implementation of these policies.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15-16, 1962.

DC 2/8
15 November, 1962.

PERSONNEL REGULATIONS

PERSONNEL REGULATIONS

These regulations implement the provisions of the CRL Personnel Policy. They are effective herewith and govern the conditions of service and personnel practices of the Cholera Research Laboratory. Changes will be published as indicated.

1. General :

- 1.1 The Director of the CRL is the ultimate authority for all personnel actions including appointment, termination, promotion, demotion and reclassification.
- 1.2 The delegation of the Director's responsibilities to subordinates is accomplished formally or informally.
- 1.3 The responsibility for initiating personnel actions lies with the Section Chiefs. Requests are submitted to the Director in writing through the Administrative Officer.
- 1.4 The Administrative Officer is also the personnel officer of the CRL.
 - a. He insures the equitable application of policies, regulations and practices throughout the CRL and brings any unresolved conflicts to the attention of the Director for his interpretation and solution.
 - b. He is accountable to the Director in ensuring proper mechanisms for recruitment and employment, testing and training, incentive awards and for maintaining established standards of employment and conduct, and employee relations; the latter including interpretation of policy and regulations, grievances, performance awards, etc.
 - c. All papers and documentation pertaining to personnel actions are routed through the Administrative Officer.

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- 1.5 Personnel appointed in the CRL may have to work anywhere (in Pakistan or elsewhere as required). The laboratory bears the travel expenses incident to such duties and the extra costs which are involved with residence away from home in accord with Travel Regulations. For prolonged periods, suitable displacement provisions are made by the Director on a case by case basis. Notice is given as far in advance of such duty assignments as is possible.
- 1.6 It is the general policy to employ Pakistani citizens whenever qualified personnel are available. No distinctions between employees are made in the application of these regulations by reason of religion, race, color or sex. In the absence of qualified Pakistani nationals, personnel are chosen from any available source, whether from SEATO member nations or any other. In the application of these regulations, no distinction is made by reason of nationality, except as may be specified in the terms of the overall agreement with the nation or agency providing the personnel.
- 1.7 Section Chiefs determine and make known to the Director their requirements for personnel. Initially these needs are described and approved through the budgetary process, as described elsewhere in the CRL operating policies and regulations.
 - a. During the operating year, as personnel are required, the Section Head concerned prepares a description of the duties to be performed (job description), the qualifications required, the proposed beginning salary, grade and title. This is forwarded to the Director, through the Administrative Officer, for final approval.
 - b. Recruitment action commences only when all particulars of the recruitment request have been approved by the Director.
- 1.8 Job descriptions are periodically revised to assure that they accurately reflect the work and level of responsibility borne by the employee.

- a. When there are sufficient changes, a revised job description is submitted through the Administrative Officer to the Director. If, upon review, the work change is sufficient to require a change in salary, the matter is taken up with the Section Head concerned. Any change requires the signature of the employee and reapproval of his qualifications.
- b. Should an employee feel that a job description does not adequately reflect the position occupied and the responsibilities inherent therein, the employee may request such review. After this review, if the employee still feels that an inequity exists, an appeal may be requested by the employee in writing addressed to the Director through the Administrative Officer.

2. Recruitment :

- 2.1 The Section Chief has sole responsibility for initiating recruitment and primary responsibility for selecting personnel for his section. He is assisted by the Administrative Officer and others as the Section Chief designates. No person is selected for a section who is not acceptable to the Section Chief.
 - a. The vacancy may be publicized by word of mouth or by advertisement in the press or other media under the name of the Director. Potential applicants are provided with all details of qualifications required, the nature of appointment, the salary scale together with allowances payable, minimum and maximum age limits and other relevant information.
 - b. Applicants are subject to any written, practical, and/or oral tests that may be deemed necessary by the Section Chief.
 - c. The Section Chief designates in writing to the Director the name or names of the applicants selected by him for appointment.
 - d. As required, part-time or temporary employees are employed to perform specialized or temporary services. Such employees are

appointed by the Administrative Officer on recommendation of the Section Chief. Work performed by part-time employees are recorded on each visit on a part-time job slip, signed by the supervisor.

- 2.2 Prior to permanent employment an applicant is subjected to such physical examination as is deemed appropriate by the Director. Defects made apparent by such an examination must be corrected by the applicant unless the Director determines that it is in the best interests of the CRL to waive the requirement.

3. Appointment :

- 3.1 Formal appointment is made by a letter of appointment signed by the Director. Normally, the salary structure (Appendix I) is adhered to in all appointments and the initial salary is the first step in the grade to which appointed. Recommendation by the Section Chief to appoint at a higher or lower grade, salary or increment may be honored by the Director if good and sufficient reasons are presented to the Director in writing proving that it is in the overall interests of the CRL to do so.
- 3.2 Each appointment is probationary until such time as proof of satisfactory security and medical clearance and reference checks is received and until three months continuous employment is completed. During this probationary period and employee may be dismissed summarily if his performance of duty is defective in any way. Upon completion of the probationary period, the employee automatically attains permanent status unless a three months extension of probation is requested by the supervisor. In this case, the employee is notified in writing of the reasons for the delay.
- 3.3 Upon appointment, an employee indicates his acceptance of the terms of employment by signing, in duplicate, an employment form which

lists all the terms and conditions of appointment. One copy is retained by the employee and the other copy is placed on record in his personal file. The form is in the form of Appendix II. A description of the duties to be performed by each employee, is made a part of the appointment.

- 3.4 Personnel deputed to the CRL by one of the participating governments are normally acquired under special agreements which establish their grades, salaries and allowances and which may define implicitly or explicitly the conditions of their services. In all other regards the conditions of their employment and responsibilities are indistinguishable from those of other CRL employees.
- 3.5 The Administrative Officer is responsible for appropriate orientation of newly appointed personnel, and for briefing them on the policies, procedures and practices of the CRL. The supervisor orients the employee in his job and working arrangements. The Administrative Officer maintains appropriate check lists for this purpose.
- 3.6 A former employee who attained permanent status and whose appointment was terminated without prejudice may be reinstated to his post in permanent status if he is reemployed within six months of his dismissal.

4. Advancement :

4.1 Promotion:

- a. This is the advancement of an employee to a higher grade, either as a result of a re-evaluation of his present post or transfer to a different post of higher grade.
- b. First preference for filling vacancies in the CRL is by promotion from within. Outside recruitment will be undertaken only when qualified candidates are not available within the CRL.
- c. Recommendation for promotion is initiated by the Section Chief in

(more)

memorandum form to the Director, CRL, recommending the increase to be given and providing full justification. This is best accomplished by submission of a revised job sheet. (Para 1.8 a).

- d. Upon approval of the promotion recommended, a copy is forwarded to the Administrative Officer for action.
- e. Any promotion to the next higher grade must give the employee a pay increase no less than the next salary increment of the old grade.

4.2 In-grade Increase:

- a. This is an advancement from one step rate to the next higher step rate within the same grade. Full-time personnel who have completed one year's service in grade receive a one-step salary increase subject to a satisfactory performance rating by the supervisor. No employee on probation is considered for such an increase until after satisfactory completion of his probationary period, but satisfactory service time during probation counts toward an in-grade salary increase.
- b. An employee does not accumulate service credits toward a salary increase for any time during which he is on leave without pay, nor for any period of absence without leave (AWOL).
- c. Part-time staff members are eligible for in-grade salary increase when they have worked a period of time equivalent to one year.

5. Termination of Services :

- 5.1 When a Section Chief wishes to discharge any employee who is under his jurisdiction, he makes such recommendations in memorandum form through the Administrative Officer, to the Director, setting forth the reasons as covered elsewhere in this section, and indicating what steps had been taken to correct the fault if discharge is for cause.

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5.2 An employee's service may be terminated for any of the reasons listed below:

- a. Services may be terminated summarily for: (See para 7.1 g).
 - (1) Unsatisfactory police report or references.
 - (2) Falsification of application for employment or other documents.
 - (3) Conviction of a civil or military offence which in the opinion of the Director is of such nature that the employee's continued service is deleterious to the best interests of the laboratory.
 - (4) Conduct which would bring discredit or embarrassment to the CRL, or which is detrimental to the best interests of the CRL.
 - (5) Theft, pilferage, or an act of vandalism.
 - (6) Resignation without formal notice or before the expiration of the notice period, without written approval.
 - (7) Exhibited evidence of moral turpitude or of unsavory character.
 - (8) Absence without leave.
 - (9) Malingering
 - (10) Refusal to follow instructions of a supervisor, or refusal to perform.
 - (11) Insubordination or shirking of duty.
 - (12) Refusal to comply with the regulations of the CRL.
- b. Probationary or temporary employees may be summarily discharged without prejudice on account of:
 - (1) Unsatisfactory medical report.
 - (2) Unsatisfactory work performance including failure to meet the contract or failure or inability to follow instruction of a supervisor, or failure to meet qualitative and/or quantitative standards of the position.

(more)

c. An appointment is void if the post is abolished by termination of part or whole of the program activities of the CRL, whether such action is caused by circumstances beyond the control of the CRL, by action of the CRL Directorate or by the natural evolution of the program in pursuit of its overall mission.

(1) When appointment is voided for these reasons, permanent employees are given as much notice as possible, receive a letter of good conduct, one month's salary as compensation, such monies as have accumulated to his credit in the Provident Fund and cash in lieu of terminal leave.

(2) A probationary employee with over two month's service who is to be so discharged receives one week's written notice or one weeks additional pay in lieu of such written notice, and is given an appropriate recommendation.

5.3 In terminating the service of a confirmed employee, or resignation by the employee, one month's notice is required by either party (except for summary dismissal, as specified above). A confirmed employee who is discharged without prejudice, receives two weeks' additional pay, computed from the date of his actual release from duty, as well as applicable terminal leave pay and money deposited in the Provident Fund.

5.4 The notice of discharge of an employee is signed by the Director, or a designated subordinate.

6. Compensation :

6.1 The payment of salaries and wages is made once at the end of each month from a payroll prepared by the Accountant, verified by the Administrative Officer and approved by the Director, CRL. Each employee is paid in cash unless the specifically requests and obtains advance approval for payment by cheque.

6.2 Normal increments, overtime, etc., as authorized, are added to the salaries when monthly pay-rolls are prepared. Each employee receives

one notice detailing his base pay and allowances and a notice whenever the amount is altered due to a change in his status.

- 6.3 Any deduction from an employee's salary is reflected on the pay-roll and the reason "number coded" or otherwise identified both on the pay-roll and on the employee's pay-roll receipt.
- 6.4 The structure of grades, salaries and salary increments for employees of the CRL are in accord with that established in Appendix I of these Regulations as it may be revised periodically by the Director.
- 6.5 Income tax is deducted at source from the personnel and the Accountant is responsible for collecting and recording the collection of such amounts and their deposit with the income tax authority.

7. Leave :

7.1 There are 6 types of leave:

- a. Annual leave: Annual leave is earned at the rate of 2 working days per calendar month of satisfactory service. Employees who serve satisfactorily for more than 3 years earn annual leave at the rate of 2½ working days per calendar month. Annual leave is carried over from one leave year to the next to a maximum of 45 days. Annual leave is not used until completion of the 6 month's probationary period, except under extenuating circumstances. Upon termination of employment, with or without prejudice, the employee is paid for his accumulated annual leave at the rate of his current monthly salary. Annual leave is granted only when the activities of the CRL permit and is requested in advance by submitting an appropriate leave request to the Administrative Officer after approval by the employee's supervisor. Approval of the request is indicated by return of the completed form to the employee.
- b. Sick leave : All employees accrue 1 day of sick leave per calendar month regardless of their length of service. Sick leave is carried over from one leave year to the next with no fixed limit. Absence for more than three days will be supported by a certificate

(more)

from a physician certifying the illness. Upon termination of employment, with or without prejudice, an employee receives no pay in lieu of accumulated sick leave.

- c. Special leave: Special leave may be granted to an employee with full pay, partial pay or no pay at the discretion of the Director, acting upon the recommendation of the employee's Section Chief. Circumstances under which the employee may be granted Special Leave include those requiring him to be absent for court duty, voting, special education or training or because he sustains an illness or injury directly attributed to the nature of his work, provided no wilful misconduct on his part is involved and provided he is not otherwise insured under workmen's compensation.
- d. Maternity leave: Married, female employees of the CRL, are entitled to maternity leave with full pay of 6 weeks before expected birth and 6 weeks after actual delivery. To be eligible for maternity leave, an employee must be legally married and must have been continually employed by the CRL for at least 9 months prior to the date of delivery. When complications or other conditions arising out of the pregnancy warrant, the total leave may be extended to six months in a leave without pay status.
- e. Leave without pay : Leave without pay is a temporary non-pay status and absence from duty granted in writing upon the employee's request, in advance. Authorization of leave without pay is a matter of administrative discretion.
- f. Compensatory leave : A period of off duty time equivalent to that worked on over time may be granted during duty hours as compensatory leave. An employee takes compensatory leave only upon approval of his supervisor. Records of compensatory leave accrued and taken are kept as with other leave records.
- g. Absence without leave : When an employee absents himself from duty without advance authorization, his absence is charged to

to Absence Without Leave and his pay is forfeited for the entire period of such absence. If the employee can offer a satisfactory explanation, the Section Chief may recommend, at his discretion, an alteration to annual leave, sick leave or leave without pay as the circumstances warrant, subject to the provisions below:

- (1) Where absence without leave could endanger or could be construed to endanger the health or welfare of a patient or patients, disciplinary action including demotion, or dismissal may be taken.
- (2) If the employee so affected presents unassailable proof that all measures to report for duty or to notify the Section Chief of unavoidable delay, or to request additional leave, were vigorously pursued and in ordinarily sufficient time, the Section Chief may, in consultation with the Director and Administrative Officer, recommend reinstatement with prejudice removed. Such recommendation is ordinarily granted only if the employee's record is otherwise clear and his skills and deportment are above average.
- (3) An employee who is not in a critical position as above described, and is absent beyond the return date of authorized leave or fails to appear for regular duty, is charged with AWOL beginning with the hour of such absence. Punitive action is taken based on the length of his absence, the level of his responsibility, etc., after consultation between the Section Chief and Director. In all cases, minimal punishment is forfeiture of all pay and allowances for the period of unauthorized absence.

7.2 Leave records for all types of leave are maintained in the Administrative Section.

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8. Hours of duty :

- 8.1 The normal duty hours for the CRL are 8:30 to 5:00 pm, daily Monday through Friday, with $\frac{1}{2}$ hour for lunch. Total weekly hours are either 40 hours or 60 hours per week, as specified in the appointment letter. Specific normal working hours for each employee are arranged between the employee and his supervisor, and the Administrative Office is notified of the work schedule if this differs from the normal duty period.
- 8.2 Part-Time: Hours are as indicated in the contract. Method of supervision, if work is performed outside of normal working hours, is specified by the supervisor prior to employment. Part-time employees are paid monthly for the hours worked in accord with Appendix I and in accord with these and other applicable CRL regulations.
- 8.3 Temporary : For intermittently employed personnel, the hours of work cannot be established. Such personnel are engaged, therefore, only upon sufficient evidence that the responsible supervisor proposing employment can regulate and control the work output and keep accurate records of work and hours performed. After each period of work, these records are forwarded to the Administrative Officer who uses them to prepare the pay-rolls in accordance with the employing contract as well as applicable procedures and policies of the CRL.
- 8.4 An employee may be required to work more than his normal working hours at the direction of his supervisor and/or Director and earns additional compensation in the form of overtime pay or earns compensatory leave. Overtime pay is subject to the advance approval by the employee's supervisor and the fund concurrence of the Administrative Officer on the overtime slip and is paid at the rate of one hour's pay for one hour worked.
- 8.5 In the field, employees are expected to work the schedule prescribed by the team leader, regardless of their normal duty hours and no

(more)

employee earns overtime or compensatory leave. "Off-time" may be set by the team leader subject to the work requirements of the group. "Off-time" is not cumulative and is not a right of the employee.

- 8.6 Each Section Chief maintains a Daily Attendance Record. The Administrative Officer prepares a monthly Time and Attendance Report on the basis of the Daily Attendance Records, for the preparation of the pay-roll and maintenance of records required to be kept.
- 8.7 Holidays which are scheduled in the CRL Annual Holidays list (Appendix III) are observed by the CRL.
-

Appendix I

SCHEDULE OF GRADES SHOWING MONTHLY GROSS PAY ^{1/} FOR
PERSONNEL OF THE PAKISTAN-SBATO CHOLERA RESEARCH
LABORATORY.

Annual Increments

	1	2	3	4	5	6
CRL 1	Salary and allowances according to terms of contract.					
CRL 2	1800	1883	1965	2048	2130	2213
CRL 3	1375	1469	1500	1591	1680	1771
CRL 4	1020	1078	1135	1193	1250	1260
CRL 5	936	997	1043	1087	1135	1181
CRL 6	804	844	884	925	980	1020
CRL 7	700	741	781	821	861	902
CRL 8	530	570	610	650	689	718
CRL 9	431	464	497	530	563	597
CRL 10	398	424	451	477	504	530
CRL 11	364	391	417	444	470	496
CRL 12	303	323	332	351	371	391
CRL 13	210	222	234	248	261	275
CRL 14	150	162	174	186	198	210
CRL 15	130	136	143	149	150	150
CRL 16	93	99	105	111	118	124
CRL 17	Temporary hire. Schedules to be determined.					

^{1/} Includes base pay, dearness and housing allowances computed on base pay, thus :

Base pay:

	<u>Dearness Allowance</u>			<u>Housing Allowance</u>	
	% of base pay	Min.	Max.	% of base pay	Min.
Less than Rs 100.00	17½ %	Rs 30	-	25%	Rs 10.00
Rs 100 - 249	17½ %	30	•	20%	•
250 - 749	17½ %	•	Rs 85	15%	•
750 - 1249	10 %	100	150	15%	•
1250 or more	10 %	100	150	10%	•

DC 2/8

16 November 1962

Appendix II

EMPLOYMENT CERTIFICATE

I _____ accept appointment as
_____ in the Pakistan-SEATO Cholera Research
Laboratory commencing _____. I agree to abide by the terms of
employment as herein listed and as contained in the CRL Regulations. I under-
stand that my appointment is probationary until I have satisfactorily served for
three months, at which time my appointment becomes permanent unless I am
informed otherwise. I further understand that this appointment is subject to
satisfactory police, reference and medical checks. My monthly pay, allowances
and deductions are as listed below:

Base Pay Rs _____

Dearness Allowance Rs _____

Housing Allowance Rs _____

Gross Pay Rs _____

Less Deductions Rs _____

Net Pay Rs _____

Deductions:

*Provident Fund @ 4% Rs _____

Income Tax Rs _____

Total Deductions Rs _____

* Held on deposit to your credit
together with equal laboratory
contributions.

Appendix III

OFFICIAL HOLIDAY
of the
PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

<u>Name of Holiday</u>	<u>Date</u>	<u>Number of Days</u>
New Year's Day	January 1	1
Juma-Tul-Wida	March 2	1
Eed-Ul-Fitre	March 8 & 9	2
Pakistan Day	March 23	1
Eed-Ul-Azha	May 15 & 16	2
Muharrum (Ashura)	June 13	1
American Independence Day	August 4	1
Pakistan Independence Day	August 14	1
Labor Day	September 3	1
Quaid-E-Azam's Death Anniversary	September 11	1
Thanks giving Day	November 22	1
Quaid-E-Azam's Birthday & Christmas	December 25	1
	Total	= 14

All personnel other than those necessary for security, communications or other essential services, will be excused from duty on the holidays listed above.

Personnel who wish to observe religious or national holidays other than those listed may do so in lieu of scheduled holidays.

CATEGORIES OF STAFF SHOWING SPAN OF PAY GRADES
AND QUALIFICATION REQUIRED AT START OF THE CATEGORY

6

Categories of Staff		Pay Grades																Qualifications
Technical	Administrative	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1. Directing Personnel and Consultants	Consultants																	Must be suitably qualified and competent in performing services, valuable and necessary to the CRL
2. Senior Research Officer	Executive Officer																	Doctorate degree, foreign advanced academic qualification or comparable specialized training.
3. Jr. Research Officer Sr. Physicians	Sr. Administrative Personnel.																	Foreign Doctorate or Masters degree or demonstration of exceptional ability in duties to be performed in this Grade.
4. Jr. Physicians Nursing Supervisors Sr. Research Assistants	Secretaries Administrative Assistant Property & Supply Officer																	Bachelors, Masters, Medical degree or appropriate advanced training or experience.
5. Jr. Research Assistants Sr. Medical & Lab. Technicians Ward Nurses	Stenographers																	B.Sc or appropriate specialized training.
6. Jr. Medical and Lab. Technicians	Typists, Supply Assistants, Chief House Keeper, and Skilled Maintenance Personnel.																	Intermediate or Matriculation with competence in English as required for performance of duties.
7. Lab. Attendants and other General Duty Personnel	Despatcher, Drivers, Cooks, Night Guards, and General Duty Personnel.																	No specialized qualifications except willingness and ability to perform duties.

* Competence in spoken and written English required in all of the first 5 categories.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15 - 16, 1962

DC 2/9
15 November 1962

THE BUDGET PROPOSAL FOR FISCAL YEAR 1964

As has become evident from the Financial Report, the funds allocated to date have been considerably in excess of those expended. However, this surplus has accumulated in a period before the laboratory was under full operation and minimal field work undertaken. Since our funds are all 'no-year' funds, this surplus provides a most important reserve as a cushion for later expanded operations.

Our experience has not been sufficient to provide meaningful information on which to project a budget which will accurately cover anticipated expenses. It is proposed that funding for fiscal year 1964 be continued at the level which pertains for 1963, as shown in Appendix I to this document.

PROPOSED CRL BUDGET

Fiscal Year 1964

July 1, 1963 - June 30, 1964

Particulars	CRL Operating Fund Rupees ^{1/}	UK Fund Pounds	NIH Research Agreement		SEATO-AID- NIH Cholera Fund (\$) ^{4/}
			Rupees ^{2/}	Dollars ^{3/}	
a. Salaries and Wages	Rs 120,000	£ 5,000	Rs 245,525	\$30,000	\$ 45,000
Professional	20,000		104,850	22,000	
Technical, Supporting	100,000		120,675		
Transportation costs				5,000	
Consultants and visiting Scientists			20,000	3,000	
b. Materials, Supplies	132,000	2,500	146,000	5,000	45,000
Supplies and Materials	84,000		82,500		
Lab Supplies, Materials	(30,000)		35,000		
Office Equipment	(40,000)		17,500		
Experimental Animals	(4,000)		7,000		
Animal Food & Bedding	(6,000)		15,000		
Dry Ice	(4,000)		8,000		
Transportation of things	18,000		18,000		15,000
Specimens to Lab	(2,000)		5,000		
Shipping and Clearance	(14,000)		10,000		
Specimens to Overseas	(2,000)		3,000		
Rents and Utilities	8,000		18,000		
Vehicles	(6,000)		10,000		
Utilities	(2,000)		8,000		
Communications - Postal and Telegraphs	12,000		2,500		
Other Contractual Expenses	10,000		25,000		
c. Travel Expenses	74,000	250	120,860		25,000
Within Pakistan	24,000		21,720		
Outside Pakistan	30,000		34,400		
Consultants and visiting Scientists	20,000		64,740		
d. Equipment	70,000	2,000	20,000	7,000	30,000
Local Scientific Equipment	30,000		5,000		
Furniture	40,000		15,000		
Other					
e. Other Expenses	24,000	250	213,860		5,000
Indirect Overhead costs	24,000		13,860		
Maintenance and Repair	10,000				
Indirect unidentifiable	14,000				
Miscellaneous			200,000		5,000
Total	Rs 420,000	£10,000	Rs746,245	\$42,000	\$150,000

1/ Includes Rs 105,000 provided under current agreement to December 31, 1963.

2/ Includes Rs 373,123 provided under current research agreement to Dec. 31, 1963.

3/ Additive to that provided by agreement to Dec. 31, 1963.

4/ Administered by the Chairman, NIH Cholera Advisory Committee.

PAKISTAN-SEATO CHOLERA RESEARCH LABORATORY

Second Meeting Of The

DIRECTING COUNCIL

Dacca, East Pakistan
November 15-16, 1962.

DC 2/10
November 15, 1962.

ACTION ON EXTENSION OF AGREEMENT

For the information of the Directing Council, Par.J.2., of the REVISED AGREEMENT of 30 December, 1961, is presented:-

" J. PERIOD OF REVISED AGREEMENT : EXTENSION

2. The present Agreement may be modified, altered or amended by mutual agreement of the parties in writing at any time. Unless otherwise agreed, subject to the availability of funds, it will continue through June 30, 1964; consideration of extending the present Agreement beyond June, 1964 will begin not later than June, 1963 based on recommendations of the Directing Council. This Agreement may be terminated by mutual consent of the parties; participation of any one party to the Agreement may be withdrawn upon twelve months' written notice to all other parties to the Agreement".

It is therefore proposed that the Revised Agreement between AID and the Government of Pakistan of 30 December, 1961 be extended in its present form for a period of three years, that is, to continue through June 30, 1967.