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UNITED STATES GOVERNMENT

Memorandum

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TO : SER/ENGR/LA
AID/Washington

DATE: January 10, 1973

FROM : Arthur G. Bonny, ENRO/P
USAID/Rio de Janeiro

SUBJECT: A.I.D. Loan Nº 512-L-085
Brazilian Management Development
Program - Final Report - R. P. I.
Management Training Course 1972

Enclosed are two copies of the borrower's final report of the training received by the Brazilian Electrical utility executives who attended the summer course beginning June 12, and concluded August 4, 1972 at the R. P. I.

The able report is self explanatory both for the work schedule and the tours made.

The course evaluation is comprehensive while some of the suggestions made, if applied, should tend to even further the value of future courses.

Two copies of the transmittal letter is also enclosed to show the appreciation of ELETROBRÁS of the courses and how well it has fulfilled their plan that for the next three years to promote eight additional courses at Brazilian electric utilities and for which they hope to have the same good results in the Management Program in Brazil.

cc: CDO

Encls: a/s

ENRO/P: AGBonny: ia.

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Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

ELETROBRÁS

CENTRAIS ELÉTRICAS BRASILEIRAS S.A.

GABINETE DO DIRETOR

dge-617/72

Rio de Janeiro, November 16, 1972

MR. DANIEL J. MACKELL
Assistant Director for
Capital Development and Industry
USAID Mission to Brazil
Rio de Janeiro - GB

Subject : AID - Loan 512-L-085
Final Report of RPI Management
Training Course 1972

Dear Sir,

According to Article IV Section 4.11 of the above mentioned Loan Agreement, we have the pleasure to present to you the final report of the 1972 - Group of the Management Course at Rensselaer Polytechnic Institute - RPI, the last one realized in that American University with funds from the above Loan, as foreseen in our Implementation Plan.

We are sending herewith 3 (three) copies of Professor Barry Taylor's report, the American supervisor of the course, in which he gives the course schedule, tours program and social activities of the participants in complete detail. Item D of the report is the diggest of the student's reports.

This program, the fourth of a series started in 1969, was attended by 68 executives of various Brazilian electric Companies.

After the end of each of these four courses, the program was appraised by the Supervisor and by the participants. The observations and suggestions presented were used to improve the next courses. This gives us a good experience in this kind of programs.

Now, we believe it will be possible to promote courses like this in Brazilian universities, profiting the experience developed at R.P.I. in the last four years.

The cooperation given by professors of R.P.I. in the two programs realized at G.V.F., and the training given to the GVF's professors at R.P.I. in the last two years were very useful.

Copy

For the next three years we intend to promote 8 additional courses at Brazilian universities, training 160 executives of Brazilian electric utilities.

ELETROBRÁS is very pleased in working together with AID in this training program, and we hope to have the same good results in the Management Program in Brazil.

Yours very truly,

ANTONIO CARLOS BASTOS
Acting Director

Rensselaer Polytechnic Institute

TROY, NEW YORK 12181

Executive Development Programs
Office of the Director

18 September 1972

Dr. Antonio Carlos Bastos
Acting Director
Centrais Eletricas Brasileiras S.A.
Escritorio Central: Avenida Presidente Vargas, 642-10°
Brazil, South America

Subject: Final Report
Brazilian Executive Development Program
Summer 1972
Rensselaer Polytechnic Institute

Dear Dr. Bastos:

The following is the final report on the training received by the Brazilian electric utility executives who attended this summer's Management Development Program.

The course, which began on June 12, 1972, concluded on August 4, 1972. The following sections briefly describe the training and activities of the participants during this eight-week period.

A. Class Hours and Work Schedule

Classes were held Monday through Friday except on the Fridays where tours were scheduled. The classes began at 8:00 a.m. with the morning session ending at 11:30 a.m. The afternoon session commenced at 1:00 p.m. and ended at 5:00 p.m. Time was allocated during the classroom sessions to enable participants to read cases and work out examples. Professors were available to answer any questions the students had concerning the assignments and exercises. Since the amount of material given to the participants was greater this year than in previous years, many of the men had to complete their assignments outside of class hours.

Again this year, the program was redesigned with more classroom time than ever before being allocated to the study of quantitative techniques, long-range planning and action implementation

Diretoria de Gestão
Empresarial
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exercises. Less time was spent covering the areas of financial management and behavioral science. We were able to de-emphasize these two areas because of the improvement in the two-week training program given by the Getulio Vargas Foundation. The participants took this course prior to coming to Rensselaer. By working closely with the staff of the Getulio Vargas Foundation, we were able to minimize the duplication of material the participants received by attending both programs. An outline of the course content of this year's program is shown in Exhibit I of this report.

B. Tours

1. New York Power Pool, Guilderland
2. Niagara Mohawk Power Corporation, Albany
3. Robert Moses Power Plant, Niagara Falls

The visit to the New York Power Pool in Guilderland occurred on July 14, 1972. After taking a tour of the facility, the men were permitted to enter the control room and see first-hand how the New York Power Pool is operated.

The following week the participants visited the Niagara Mohawk facilities in Albany. Here they were shown the customer billing, customer services, dispatching and emergency procedures of the Niagara Mohawk Power Corporation. Afterwards the participants had lunch with various key personnel of Niagara Mohawk. This enabled the participants to have their questions concerning Niagara Mohawk's method of operation answered by knowledgeable individuals.

On July 28, 1972 the participants and their families travelled by bus to Niagara Falls. That evening they were entertained at a social function by executives of the Charles T. Main Company. On Saturday morning, the men visited the Robert Moses Power Plant while the wives and children were taken to the Aquarium. After having lunch together they were all taken to the Lewiston Pumo Generating Plant and the reservoir. Later that afternoon, they visited the American side of Niagara Falls. That evening, Charles T. Main Company hosted a dinner for the Brazilians and then arranged for them to be taken to Canada so they could see the Falls at night. A scheduled tour to the Gilboa pump generating station had to be cancelled because of Hurricane Agnes.

C. Other Activities

As in the past, the participants and their families travelled extensively throughout the eastern United States and Canada during weekends. In addition, at night they occasionally took short trips to such places as the Saratoga Performing Arts Center, Tanglewood and other nearby cultural and recreational centers.

This year for the first time, wives of the participants also went back to school. Approximately ten of the wives took a course in English at the State University of New York at Albany. In addition, one of the wives, who is a professor in Brazil, successfully completed two graduate courses at SUNYA in her field of sociology.

During the fourth week of the program, Rensselaer held a cocktail party in honor of the participants and their wives. In addition, various members of the faculty entertained the Brazilians at their homes and took them out for dinner. During the last week of the program, the participants gave a party for the faculty and their wives. On Thursday evening, August 3, 1972 the Graduation Ceremony was held at a local restaurant. Sixty-five people attended the ceremony, and the participants received their diplomas from Dr. Stephen Wiberley, Acting Provost at Rensselaer.

D. Course Evaluation

At the end of each section of the program, the participants were requested to complete an evaluation form on the material presented. A summary of these weekly critiques is shown in Exhibit II of this report. Upon the completion of the course, an evaluation of the entire program was made. The results of this evaluation is presented in Exhibit III.

During their stay at R.P.I., the participants made a number of suggestions on how the program could be modified. These suggestions are listed below:

1. Even though the overall ability of the participants in this group to speak and comprehend English was superior to the previous three groups, we still had a few complaints that the language handicap adversely affected the ability to understand everything that was being presented in class. As in the past, these complaints subsided after the participants had more opportunities to converse in English.

2. Two of the participants suggested that the course should be limited to people with homogeneous backgrounds. They felt that the group should either be all engineers or all financial people. Educationally, this suggestion would defeat one of the major advantages of using the case method of study because different viewpoints would less likely be expressed by the participants.

3. Some of the participants stated that understanding the financial and accounting portion of the program would be greatly improved if the participants who are weak in accounting were required to attend a course in basic accounting prior to coming to R.P.I.

4. One person suggested that the students' performance be evaluated weekly by the professors and these evaluations be transmitted back to ELETROBRAS.

5. It was felt by some that a ninth week should be added to the program. During this week, executives from American electric utility companies would address the class and explain how they operate the departments they were responsible for.

6. A few complaints were expressed concerning the length of the school day. It was mentioned that attending school from eight in the morning to five in the afternoon was too long a period to spend in class and the amount of material being presented was too great for them to completely absorb.

7. Although all the participants seemed to enjoy the case method of study, a few of them suggested in such areas as accounting more lecturing and less cases would improve the learning process.

E. Conclusion and Recommendations

The opinions expressed by the participants and their instructors indicate that we were able to achieve the overall objectives established for this year's program.

The two-week program conducted by the Getulio Vargas Foundation and the improvement in the English course helped immensely, but the major reason for the success of the program was the additional time devoted to long-range planning, action implementation exercises and quantitative techniques. Despite this, minor modifications would be required if we were to run the program another year. The present course outline, however, should serve as an excellent model for the Management Development Program now being conducted in Brazil by the Getulio Vargas Foundation.

As we did last year, we had two professors from the Getulio Vargas Foundation attend the program. They now have four faculty members who are familiar with how the R.P.I. course was run. Despite this, I don't believe these professors are qualified to teach the quantitative portion of the program. Perhaps, ELETROBRAS could provide an instructor with the necessary quantitative background to conduct this section of the course.

The system that we have been using for the past year of sending R.P.I. professors to Brazil to help teach and train Brazilian professors should be continued for a short period of time. Furthermore, Rensselaer's faculty should develop and conduct in Brazil special advanced courses of one or two weeks duration for graduates of the Management Development Program.

Now that the Management Development Program for Brazilian electric utility executives has been completed, I want you to know that all of us here at Rensselaer greatly enjoyed the opportunity of

working with the Brazilians during the past four summers. It is very encouraging to see the number of participants who have been promoted to more responsible positions in their organizations since completing the program. Rensselaer would like ELETROBRAS to know that we would be very happy to be of assistance to you anytime that you feel that you can use our services.

Sincerely,

Barry A. Taylor
Director, Brazilian Management
Development Program

BAT:lmw

EXHIBIT I

Course Outline

Week	A.M.	P.M.
1	Accounting (R. Smith)	Role of Manager (Tincher)
2	Financial Analysis (R. Smith)	Decision Models (Simons)
3	Capital Budgeting (R. Smith)	Project Control Techniques (Simons)
4	Engineering Economy (R. Smith)	Mgt. Information Systems (Simons)
5	Marketing (R. Smith)	Management Philosophies (Beach)
6	Financial Management (R. Smith)	Organizational Theory & Strategy (Beach)
7	Action Implementation Exer. (Tincher)	Action Implementation Exer. (Tincher)
8	Long Range Planning (Remley & Tincher)	Long Range Planning (Remley & Tincher)

EXHIBIT II

Week #1

terial	4	3	2	1	0	No Response	Average
stern Machinery	6	7	6	0	0	1	3.00
naging for Business Effectiveness	7	4	3	0	0	6	3.29
hn Bullock	8	6	6	0	0	0	3.10
o Are Your Motivated Workers?	6	5	4	4	0	1	2.68
e Need Hierarchy	11	8	1	0	0	0	3.50
e More Time	2	5	5	0	2	6	2.36
e Bill David Case	8	8	3	1	0	0	3.15
ientific Instrument Div.	6	11	3	0	0	0	3.15
TOTALS	54	54	31	5	2	14	3.05

Week #1

terial	4	3	2	1	0	No Response	Average
nagerial Finance	5	10	5	1	0	1	2.90
counting terms, concepts & techniques	4	11	7	0	0	0	2.86
ecial Notes	3	9	5	3	0	2	2.60
counting for the Financial Analysts	4	7	11	0	0	0	2.68
e Balance Sheet	4	11	7	0	0	0	2.86
tes on Price Level Accounting	3	8	9	1	0	1	2.62
produced Notes from Public Utility Regulation	6	7	8	1	0	0	2.82
ate Base"	3	11	6	2	0	0	2.68
ost of Attracting Capital"	1	14	7	0	0	0	2.73
ther Measures of Fair Return"	1	11	10	0	0	0	2.59
unctions of Profits in Public Service Industries	3	10	9	0	0	0	2.73
otes to Two Approaches to Basic ROI Analysis, (11F26)"	0	12	7	2	0	1	2.48
TOTALS	37	121	91	10	0	5	2.71

Week #2

aterial	4	3	2	1	0	No Response	Average
Decision Trees for Decision Making"	14	9	0	0	0	0	3.61
bacconics Case	15	7	1	0	0	0	3.61
roduction-Distribution Simulation	4	14	2	0	0	3	3.10
nventory Models	9	8	6	0	0	0	3.13
orecasting Techniques	11	10	2	0	0	0	3.39
xponential Smoothing (Notes)	6	11	5	0	0	1	3.05
illsford Crane Case	15	6	2	0	0	0	3.57
herman Motor Case	14	5	3	1	0	0	3.39
TOTALS	88	70	21	1	0	4	3.36

Week #2

aterial	4	3	2	1	0	No Response	Average
rofit and functions of profits in Utilities	1	12	9	0	0	0	2.64
easures of return on equity, on assets on rate base: profits to attract capital	2	10	10	0	0	0	2.64
inimum revenue requirements	2	10	10	0	0	0	2.64
rofit Planning cash flows and cash throw-off	6	11	5	0	0	0	3.05
ncome Statement	3	9	10	0	0	0	2.68
orm and construction of income statements	3	9	8	2	0	0	2.59
llustration of Brazilian Utility Company Statements	6	5	9	1	1	0	2.59
onsolidated Statements	1	12	7	2	0	0	2.55
ources and uses of Funds Statement	3	10	9	0	0	0	2.73
ro Forma Statements and Analysis	3	10	6	1	0	2	2.75
omparative Statements	6	7	5	2	0	2	2.85
ercentage Relationships of Components of Statements	7	10	5	0	0	0	3.09
valuation of Financial Data	5	11	5	0	0	1	3.00
llustration and Use of Selected Ratios	10	7	5	0	0	0	3.23
he Cruziero Corporation	5	7	7	3	0	0	2.64
TOTALS	63	140	110	11	1	5	2.78

Week #3

aterial	4	3	2	1	0	No Response	Average
roject Management Concepts - Network Planning	9	11	0	0	0	1	3.45
ritical Path Method	12	7	2	0	0	0	3.46
est and Levy book	12	6	3	0	0	0	3.43
.E.R.T.	10	10	1	0	0	0	3.43
onstruction Associates Case	11	9	0	0	0	1	3.55
ne of Balance	14	6	0	0	0	1	3.70
RT/COST	12	8	1	0	0	0	3.52
bnil Case	11	7	3	0	0	0	3.38
ltiproject Scheduling	5	14	2	0	0	0	3.14
source Allocation	10	6	4	0	0	1	3.30
ulti-Project Control"	7	10	4	0	0	0	3.14
troduction to Computer Systems	3	6	5	7	0	0	2.24
TOTALS	116	100	25	7	0	4	3.31

Week #3

aterial	4	3	2	1	0	No Response	Average
dgets and Budgeting Process	3	8	8	0	0	0	2.74
sh Budgets	2	10	7	0	0	0	2.74
permercados Paulista, S.A.	0	3	10	5	0	1	1.89
terest Factor in Financial Decisions	3	11	5	0	0	0	2.89
mpound Interest	5	9	2	1	0	2	3.06
bles of Compound Interest	3	8	5	2	0	1	2.67
ndouts: Equivalence and Annual Cost Comparison	0	6	10	1	0	2	2.29
pital Budgeting Techniques	5	7	7	0	0	0	2.89
pital Rationing	1	8	9	0	0	1	2.56
otes of Relationship Between Hurdle Rates, Price-Earnings Ratios, and Growth	0	4	12	1	0	2	2.18
roject Evaluation and Ranking Methods Compared	1	8	8	1	0	1	2.50
otes on Relationships Between Earnings, Leverage, Return on Investment, Payout and Growth	1	8	7	1	0	2	2.53
plication of Methods	6	8	5	0	0	0	3.05
ferred Projects	2	6	6	1	0	4	2.60
preciation and Income Tax Effects on Decisions	2	9	4	3	0	1	2.56
vestment and Financial Decisions	4	9	4	1	0	1	2.89
nsitivity Testing and Multiple Alternatives	2	4	4	1	0	8	2.64
TOTALS	40	126	113	18	0	26	2.63

Week #4

terial	4	3	2	1	0	No Response	Average
mputer Equipment	4	7	6	1	0	0	2.78
ow to Organize Information Systems"	7	9	2	0	0	0	3.28
lueprint for M.I.S."	8	6	3	1	0	0	3.17
et the Computer System You Want"	7	8	3	0	0	0	3.22
nagement Information Systems	11	6	1	0	0	0	3.56
mputer Applications in Utilities	5	7	5	1	0	0	2.89
RT Game	9	6	3	0	0	0	3.33
TOTALS	51	49	23	3	0	0	3.18

Week #4

terial	4	3	2	1	0	No Response	Average
lustrative Problems in Capital Budgeting and Engineering Economics	2	11	5	0	0	0	2.83
lustrations of project evaluation for deferred project expenditures	1	10	7	0	0	0	2.67
preciation effects upon investment decisions	1	13	4	0	0	0	2.83
pital Investment decisions under inflationary conditions	4	8	5	0	0	1	2.94
nancial Structure described, illustrated	4	5	8	1	0	0	2.67
e of Ratio-Earnings Chart	5	6	5	2	0	0	2.78
bt limits and guidelines for determining limits	2	9	5	1	0	1	2.71
st of Capital	3	9	5	1	0	0	2.78
vidend Policy and internal financing	2	9	3	2	0	2	2.69
TOTALS	24	80	47	7	0	4	2.77

Week #5

aterial	4	3	2	1	0	No Response	Average
rown Electronics Inc.	0	10	8	2	0	0	2.40
Human Relations or Human Resources"	2	12	4	1	0	1	2.79
tlas Publishing Company	3	10	4	1	0	2	2.83
Management by Participation"	3	3	6	5	3	0	1.90
Barriers and Gateways to Communication"	6	9	4	1	0	0	3.00
r. Hart and Bing	2	9	7	0	1	1	2.58
Why Don't Employees Speak Up"	1	6	6	1	0	6	2.50
arl Black	8	8	3	1	0	0	3.15
Split Roles in Performance Appraisal"	4	11	3	1	1	0	2.80
TOTALS	29	78	45	13	5	10	2.67

Week #5

aterial	4	3	2	1	0	No Response	Average
Marketing Myopia"	6	12	2	0	0	1	3.20
How to Rationalize Your Marketing Risks"	4	11	5	0	0	1	2.95
Formal Analysis of Decisions"	5	12	3	0	0	1	3.10
xamples of Market Research Techniques	3	14	2	1	0	1	2.95
Mead-Canton Corporation"	2	11	6	0	0	2	2.79
iscussion, "Marketing Quicksand: the 70's"	2	7	2	1	0	9	2.83
TOTALS	22	67	20	2	0	15	2.98

Week #6

aterial	4	3	2	1	0	No Response	Average
e Case of the Missing Time	12	8	2	0	0	0	3.46
ow to Manage Your Time"	15	5	2	0	0	0	3.59
otes on Division of Work and Forms of Formal Organization"	3	13	5	0	0	1	2.91
xas Instruments, Inc.	2	11	7	2	0	0	2.59
ltamp Electrical Corporation	1	2	2	1	1	15	2.14
e Startler Project	2	11	5	0	0	4	2.83
stems and Procedures versus the Branch Office	7	12	3	0	0	0	3.18
eam Building"	3	9	5	3	0	2	2.60
TOTALS	45	71	31	6	1	22	2.99

Week #6

aterial	4	3	2	1	0	No Response	Average
nancial Leverage	5	8	5	0	0	0	3.00
gal Gypsum Case	0	6	10	1	0	1	2.29
ng-term planning and channels of distribution of securities	5	9	4	0	0	0	3.06
mmon stock, preferred stock, and bonds	5	10	2	0	0	1	3.18
aluation and comparison of types of securities	3	11	3	0	0	1	3.00
tional and international institutional sources of funds	3	13	2	0	0	0	3.06
rking capital management and short-term financing	4	9	5	0	0	0	2.94
sh and Receivables Management	1	10	6	0	0	1	2.71
ade Credit and other sources of short-term credit	2	5	10	0	0	1	2.53
ll Campinas, S.A.	3	6	8	0	0	1	2.71
erican Telephone and Telegraph Company	3	6	9	0	0	0	2.67
TOTALS	34	93	64	1	0	6	2.83

EXHIBIT II

Week #7

terial	4	3	2	1	0	No Response	Average
e Old Man	3	12	5	0	0	1	2.90
e Effective Decision	7	8	5	0	0	1	3.10
tion Implementation Exercise	16	4	0	0	0	1	3.80
TOTALS	26	24	10	0	0	3	3.27

Week #8

terial	4	3	2	1	0	No Response	Average
e Sutter Division	15	6	0	0	0	0	3.71
jectives: A Management Tool	6	6	3	0	0	4	3.18
rporate Planning at a Crossroads	4	9	6	0	0	2	2.89
TOTALS	25	23	9	0	0	6	3.28

EXHIBIT III

Summary of Course

ek(s)	Subject	Rating				
		Excellent	Good	Fair	Poor	Average
4,6	Acct'g, Finance & Eng. Eco.	3	9	8	2	2.59
	Role of Management	9	13	-	-	3.41
	Decision Models	16	6	-	-	3.73
	Project Control Techniques	14	8	-	-	3.64
	Management Information System	11	11	-	-	3.50
	Marketing	13	9	-	-	3.59
	Management Philosophies	1	11	8	2	2.45
	Organization Theory & Strategy	-	13	7	2	2.50
	Action Implementation Exercise	15	7	-	-	3.68
	Long Range Planning	12	9	1	-	3.50
	TOTAL	94	96	24	6	3.26

Tours

		Excellent	Good	Fair	Poor	Average
a.	New York Power Pool	10	5	2	1	3.33
b.	Niagara Mohawk Power Corp.	3	9	7	1	2.70
c.	Robert Moses Power Plant	12	8	2	-	3.45
	TOTAL	25	22	11	2	3.17