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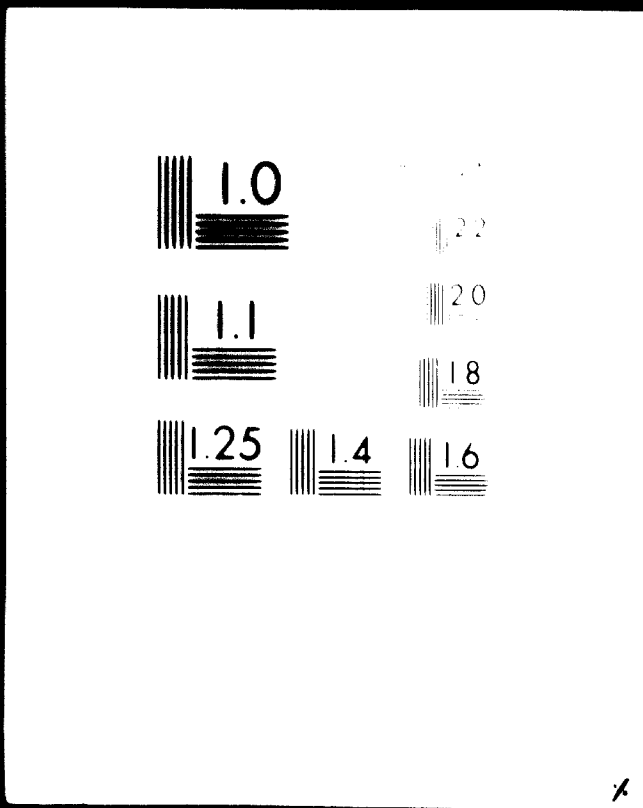
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UNIDO

**UNITED NATIONS INDUSTRIAL
DEVELOPMENT ORGANIZATION**

**REORGANIZATION OF HOUSEHOLD
REFUSE COLLECTION BY THE
APPLICATION OF COMPUTER TECH-
NIQUES FOR THE COMPOST PLANT
AT CASABLANCA
IS MOR 75 017**

PROPOSAL

IPM

INDUSTRIES PROJECTS & MANAGEMENT LTD

02182

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Proposal for Reorganization of Household Refuse
Collection by the Application of Computer
Techniques for the Compost Plant

at Casablanca .

(IS/MOR/75/017)

February 1976

IPM Industries Projects & Management Ltd.
Ärbrustergasse 24, A-1190 Vienna, Austria
Phone: 0222/37 16 06-0

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February 1976

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Subject: Your Request for Proposal: 1S/MOR/75/017
Reorganization of the Household Refuse Collection
by the Application of Computer Techniques for the
Compost Plant at Casablanca

P R O P O S A L

=====

1. Introduction

We are pleased to offer hereby the services of our organization for the execution of a complete study in accordance with your above mentioned Request and the Terms of Reference dated 9 January 1976 attached hereto as Appendix I.

In this context, we wish to introduce ourselves as an engineering organization with a large experience in technical, economic and managerial planning, construction of industrial plants and auxiliary buildings, execution of housing programmes, including infrastructure (roads, water and power supply and sewage systems).

2. Experience

As Appendix III we attach a record of achievements our organization with the help of our permanent staff and those of our consultants listed in our roster of specialists. The consultants are recruited by us for special tasks which do not require a permanent employment. This system enables us to take advantage of the co-operation with a large

practical experience and an up-to-date knowledge of their speciality, and thus to serve our clients to their best satisfaction.

3. Experts to be recruited for the present project

For the proposed project the following experts are selected:

a) Team Leader:

Dr. S. Klinghoffer, Chemical Engineer, Ph.D., Chief Consultant for our projects in developing countries. His experience is based on numerous activities in industry and, on behalf of UNDP New York, UNIDO - Vienna and the World Bank - Washington, in more than 15 developing countries, including Morocco, where he acted as Project Manager in the Centre of Industrial Studies for the Maghreb from 1967 to 1971. He carried out himself a number of studies and supervised the work of experts, formulated, on behalf of the above international organizations, new projects and evaluated existing projects. As senior member of the Planning Section of the largest chemical concern in Austria, he was involved in the planning and construction of chemical plants and large storage facilities. Several of his studies in Austria and abroad were implemented and are operated successfully. Further information can be found in his CV attached as Appendix III.

b) Refuse Collection Expert: Mr. W. Schmid, Civil Engineer, Director of the Section for Refuse Collection of the Municipality of Vienna. This Section employs, in addition to the office personnel, 50 supervisors and 550 refuse collection staff. Before, he was Chief of the Street Cleaning Section of the Vienna Municipality, employing 70 supervisors and 730 street cleaning staff. Another post he held in the Municipality of Vienna was that of an engineer in the Sewage Section. Mr. Schmid is thus best acquainted with all cleaning problems of a large city including refuse collection and delivery to compost and power plants, and therefore best qualified for organizing the household refuse problems and its regular delivery to the Casablanca compost production plants.

c) Computer Programming
Expert:

Mr. A. Rumpold is a qualified computer programming engineer who, after having completed his studies at the Technical University of Vienna, specialized in computer programming, starting with various company-sponsored courses dealing with that speciality, has acquired

an up-to-date practical experience in this field, as shown in his CV (Appendix III, p. 11 ff).

4. Possible deviation from the Terms of Reference

The above team is qualified to deal with the problem in accordance with the Terms of Reference. There will especially be investigated where computer programmes for a rational and economic refuse collection are applied. If, however, such standard programmes are not available, the computer expert will investigate the problem from his professional point of view and suggest a suitable programme.

5. Services to be performed and overall plan for the execution of the work

- a) Assessment of the present system of household refuse collection in Casablanca,
- b) assessment of the available refuse collection lorries and of their mechanical condition,
- c) assessment of the garages and maintenance workshops for the vehicle park,
- d) assessment (if data available) of the seasonal variations in the composition and quality of household refuse (incl. bulky refuse),
- e) assessment of the available staff and wages, as well as of the working plan for the staff,
- f) assessment of the unloading conditions,
- g) study of the legal regulations for the handling of household refuse,
- h) based on the above informations, a detailed refuse collection plan will be worked out, including time table for the collection lorries, the geographically most suitable part of the city for the refuse collection in

view of its transport to and use in the compost plant and the optimal cost-profit relation.

The team leader, the refuse collection expert and the computer programming expert will be requested to stay two weeks in the project area. In addition, the refuse collection expert and the computer programming expert will spend two weeks in our Vienna headquarters in order to complete their individual reports.

6. The Reports

- a) Every expert will submit his report to the headquarters of our organization, where one or more meetings of all experts will be held in order to co-ordinate their views.
- b) One week later, a First Interim Report (5 copies in English) about the findings of the team will be submitted to UNIDO.
- c) The Draft Final Report (5 copies in English) will be submitted two weeks after the de-briefing by UNIDO in Vienna.
- d) The Final Report will be completed 30 days after reception of UNIDO's Comments on the Draft Final Report, 10 copies in English and 20 copies in French are foreseen.

All reports will be worked out by our permanent clerical staff in our offices in Vienna.

7. Start of Work

A minimum of 4 weeks notice will be required, before commencing the study.

8. Price

The price fixed by our organization for the execution of the study would be

U.S. \$ 24.040.

(twentyfourthousandforty U.S. dollars)

The break down of this figure can be found in Appendix IV.

It may be noticed that, while this price includes the supply of all the information to be fed into a computer in order to obtain a programme, rational and economic, for the collection of 700 tons household refuse per day and its delivery to the Casablanca Compost Plant, it does not include the costs of the use of the computer itself.

9. Conditions of payment

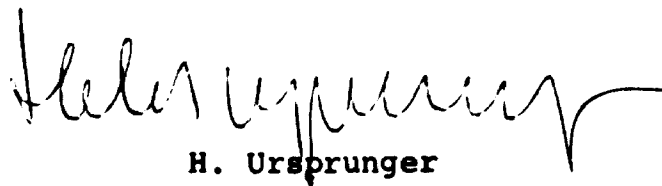
- | | |
|-------------|---|
| 1) \$ 8.000 | at the signature of the Contract |
| 2) \$ 8.000 | at the delivery of the Draft Final
Report |
| 3) \$ 8.040 | at the satisfactory delivery of
the Final Report |

All payments will be made at our choice either in U.S. currency or in Austrian shillings at the rate of S 18,20 to the dollar.

Submitted by

I P M

Industries, Projects and Management Ltd.
Armbrustergasse 24, A-1190 Vienna, Austria,
Phone: 0222/37 16 06-0.



H. Ursprunger
Chairman

Vienna,
20 February 1976

TERMS OF REFERENCE

Morocco - Reorganization of Household Refuse Collection for the Compost Plant at Casablanca
IS/MOR/75/017

1.00 General Background Information

The Ministry of Interior of the Kingdom of Morocco has installed several plants for the treatment of household refuse. The purpose is not only to solve the sanitary problem of waste disposal of the cities, particularly tourists cities, but also to produce compost for use as fertilizer by market gardeners. Among these plants the biggest is the one at Casablanca which has a capacity to treat 200 tons of household refuse per day. This plant which required an investment of the order of \$ 5 million has started operation in May 1975. Prior to the establishment of this plant, the household refuse used to be collected and dumped at different places in the periphery of Casablanca. This practice has created a serious threat to public hygiene since the refuse dumps have extended into living areas.

The establishment of this large compost plant calls for a complete reorganization of the collection of household refuse which must all be brought to the plant. This in turn necessitates several hundreds of trips by refuse collection lorries per day.

Therefore the Ministry of Interior and the Governorate of Casablanca wish to organize the most rational and economic way of collecting the refuse of the town (which has a population of about two million, including the suburbs) and to work out the journeys of refuse collection lorries to the compost plant. It appears that other cities of the world having compost plants of similar dimensions have been confronted with the same problem and that there exist standard computer programmes which provide a set of solutions both rational and economic. This involves collection of information on the City of Casablanca for the purpose of applying it to one or the other standard computer programme.

2.00 Purpose of the Project

The purpose of the project is to determine the most rational and economic scheme for refuse collection in Casablanca in order to ensure a regular and efficient supply of household refuse for the city's compost plant.

3.00 Responsibilities of the Contractor

3.01 Statement of work

To achieve the above objective the Contractor shall:

- (i) collect all the necessary information;
- (ii) through adaptation of a standard computer programme made for other towns or development of a special programme for Casablanca, process the information thus collected on a computer of his choice in order to provide the city of Casablanca with the best possible logistical arrangement for household refuse collection; and
- (iii) make recommendations for the training of Moroccan staff in the application of this technique and for other such measures as may be necessary for the maintenance and smooth running of this programme.

3.02 Contractor Services

For the performance of this work the Contractor's services shall include:

- (i) necessary project area services by the Contractor's personnel;
- (ii) obtaining a standard programme under license, if necessary;
- (iii) obtaining computer facilities for the processing of data for Casablanca;
- (iv) such home office facilities as may be necessary to support the expert/experts serving in the project area.

In his proposal the Contractor shall describe his plan of action, giving the time schedule for the execution of the work and details of the services he proposes to provide. All costs to be incurred by the Contractor in providing the above services should be included in his proposal.

3.03 Contractor's personnel

For project area work the Contractor's technical personnel shall include a management scientist with extensive experience in the application of computer techniques to the solution of refuse collection problems in big cities. He shall be fluent in the French language. Knowledge of English would be an advantage.

3.04 UNIDO briefing and debriefing

In addition to the project area services, the Contractor's team leader for project area work shall be available for one full day's briefing and exchange of views at the UNIDO Headquarters in Vienna no later than 15 days after award of the contract. Upon completion of the work in the project area, he shall return to UNIDO Headquarters in Vienna for two day's debriefing. Time spent in travel to and from Vienna and in briefing and debriefing should not be counted as project area services.

3.05 Reports**a) Draft final report**

A draft final report written in English in five copies shall be submitted to UNIDO, Vienna, two weeks from the date of debriefing of the Contractor's expert. The UNIDO will inform the Contractor in writing on its comments and/or approval of the draft final report within 30 days after UNIDO's receipt of such report in Vienna. The contractor shall give due consideration to UNIDO's comments in the preparation of the final report referred to in sub-paragraph (b) below.

b) Final report

A final report written in English in 10 copies and in French in 20 copies, shall be submitted to UNIDO, Vienna, in time to ensure it is received not later than 30 days after the Contractor has received UNIDO's comments on, or approval of, the draft final report referred to in sub-paragraph (a) above.

3.06 Standards of Work

The Contractor agrees that the performance of work and services shall conform to high professional standards.

SOME OF THE PROJECTS DEALT WITH BY
OUR FIRM AND/OR OUR CONSULTANTS

In co-operation with other consulting firms over-all
planning and construction survey of the following project:

- Hydro-electric power plant in Aschach (Danube),
- Hydro-electric power plant Ybbs-Persenbeug (Danube),
- Hydro-electric power plant Wallsee (Danube),
- Hydro-electric power plant Molln (Steyr River);
- Household refuse incineration in Wels, Austria;
- Sewer Systems in Mürzzuschlag, Austria,
Vöcklabruck, Austria,
Wels, Austria;
- Sewage purification systems in Klosterneuburg, Austria,
Frauenkirchen, Austria,
Mödling, Austria;
- Planning and construction of several roads and bridges in Austria;
- Planning and construction of a plant for pre-fabricated housing;
- Design and construction of a sulphuric acid plant (platinum
catalyst) in Argentina;
- Survey and reorganization of an ammonia plant based on electro-
lytic hydrogen and nitrogen, Argentina;
- Planning of an alkalic-chlorine plant, Argentina;
- Planning and construction of phosphoric acid plant, Brasil;
- Planning and construction of muriatic acid plant, Argentina;
- Refining plant for brimstone in Argentina;

Studies on the treatment of drinking-water, water desalination and treatment of industrial effluents, air pollution by specific industries;

Planning, construction supervision of a number of chemical plants;

Planning and organizing of household refuse collection in Vienna.

Structure programming in hospitals, Vienna;

Patients admission - data collecting computer, Vienna;

Statistical programmes for the Ministry of Health, Vienna.

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UNITED NATIONS
PERSONAL HISTORY STATEMENT (PROJECT PERSONNEL)

(TARS 2)

THIS INFORMATION MAY BE SUBMITTED TO MEMBER GOVERNMENTS

DATE: 20 February 1976 SIGNATURE: [Signature]

1. NAME: Stefan KLINGHOFFER	2. NATIONALITY: Austrian
3. PRESENT ADDRESS: Kundmanngasse 39 A-1030 Vienna, Austria	4. DATE OF BIRTH: 23 May 1903
	5. MARITAL STATUS: married

7. KNOWLEDGE OF LANGUAGES: Mother Tongue: German

OTHER LANGUAGES	READ		WRITE		SPEAK		UNDERSTAND	
	EASILY	NOT EASILY	EASILY	NOT EASILY	FLUENTLY	NOT FLUENTLY	EASILY	NOT EASILY
English	X		X		X		X	
French	X		X		X		X	
Spanish	X		X		X		X	

8. EDUCATION: (see instruction 5)

DATES ATTENDED		NAME and LOCATION of INSTITUTION of LEARNING	ACADEMIC DEGREES and CERTIFICATES or DIPLOMAS OBTAINED	MAIN FIELD of STUDY
From	To			
1913	1921	Modern Type College, Vienna	Maturity Certificate	
1921	1923	Technical University Vienna	State Exam.	Technical Chemistry and chem. Technology
1923	1927	Vienna University	Ph. D.	Chemistry

9. LIST ANY PUBLICATIONS OR PAPERS: (see instruction 6)

A number of publications and patents

9. LIST SPECIAL QUALIFICATIONS AND SKILLS CONFIRMED BY LICENSES HELD AND MEMBERSHIP IN PROFESSIONAL, CIVIC, PUBLIC OR INTERNATIONAL SOCIETIES OR INSTITUTIONS RELEVANT TO YOUR APPLICATION; INDICATE THE CLASS OF MEMBERSHIP WHEN APPROPRIATE:

Austrian Chemical Society

10.

PROFESSIONAL EXPERIENCE (see instruction 7)

<p>A.</p>	<p>From: January 1976 To most recent date of employment:</p> <p>EMPLOYER (Name and Address) AND TYPE OF BUSINESS: World Bank / UNIDO Co-operative Programme</p> <p>TITLE OF POST AND NATURE OF DUTIES: Determining the economic flexibility of either selling the sulphur as such which is recovered in the BAPCO refinery in Bahrain or transforming it into sulphuric acid or phosphoric acid or TSP.</p> <p>NUMBER AND KIND OF EMPLOYEES SUPERVISED:</p>
<p>B.</p>	<p>From: October 1975 To:</p> <p>EMPLOYER (Name and Address) AND TYPE OF BUSINESS: UNIDO</p> <p>TITLE OF POST AND NATURE OF DUTIES: Complete the Directory of Fertilizer Production Facilities, Part IV Latin America as follows: a) summary b) summary tabulations c) summary's graphical presentation</p> <p>NUMBER AND KIND OF EMPLOYEES SUPERVISED:</p>
<p>C.</p>	<p>From: May 1975 To: July 1975</p> <p>EMPLOYER (Name and Address) AND TYPE OF BUSINESS: UNIDO</p> <p>TITLE OF POST AND NATURE OF DUTIES: Feasibility Study on the manufacture of sulphuric acid and cement from <u>by-product</u> gypsum in <u>Tunisia</u>.</p> <p>NUMBER AND KIND OF EMPLOYEES SUPERVISED:</p>

PROFESSIONAL EXPERIFNCE (Continued)

From: October 1972 To: November 1972

H. Employer (Name and Address) and Type of Business:

UNIDO

Title of Post and Nature of Duties:

Evaluation of the fertilizer market and feasibility study on a fertilizer blending plant, including transport problems of fertilizers in Upper Volta.

From: June 1972 To:

I. Employer (Name and Address) and Type of Business:

UNDP

Title of Post and Nature of Duties:

Joint UNDP/UNIDO/UNCTAD mission in Cyprus.

Formulation of a project dealing with the creation of a Free-Zone Industrial Estate in the harbour of Famagusta.

From: February 1972 To:

J. Employer (Name and Address) and Type of Business:

UNDP

Title of Post and Nature of Duties:

Joint UNDP/UNIDO mission to assess the government of Qatar and to advice UNDP and UNIDO on the preparation of a project document.

From: February 1972 To:

K. Employer (Name and Address) and Type of Business:

UNDP

Title of Post and Nature of Duties:

Joint UNDP/UNIDO mission to assist the government of Kuwait in formulating a Project Request and preparation of the Project Document.

From: October 1971 To:

L. Employer (Name and Address) and Type of Business:

UNDP

Title of Post and Nature of Duties:

Joint UNDP/UNIDO mission in Saudi Arabia, Evaluation of a UNIDO industrial project.

PROFESSIONAL EXPERIENCE (Continued)

From: August 1971 To:

M. Employer (Name and Address) and Type of Business:

UNDP

Title of Post and Nature of Duties:

Joint UNDP/ILO

Evaluation of an ILO project in Ethiopia.

From: July 1971 To:

N. Employer (Name and Address) and Type of Business:

UNDP

Title of Post and Nature of Duties:

Joint UNDP/UNIDO mission in Tanzania.

Evaluation of an industrial development project.

Joint UNDP/ILO mission in Tanzania.

Evaluation of a training center.

From: November 1969 To: March 1971

O. Employer (Name and Address) and Type of Business:

UNIDO

Title of Post and Nature of Duties:

Project Manager of the UNIDO project entitled "Centre of Industrial Studies in the Maghreb" in Tripoli, Libya in charge of a) the organization and supervision of the Centre in accordance with the Plan of Operations,

b) the supervision of the work of international experts and contractors supplied by UNIDO,

c) the organization of meetings of the representatives of the Maghreb Governments (Algeria, Libya, Morocco and Tunisia) and of the interregional symposiums especially on pharmaceutical products, patents and standardization. Feasibility study and planning of an ammonia urea plant in Libya, which is now being implemented.

PROFESSIONAL EXPERIENCE (Continued)

From: September 1967 To: 31 October 1967

P. Employer (Name and Address) and Type of Business:

UNIDO

Title of Post and Nature of Duties:

Feasibility study on the production of sulphuric acid and cement from mined gypsum in Tunisia.

From: October 1966 To: January 1967

Q. Employer (Name and Address) and Type of Business:

UNDP

Title of Post and Nature of Duties:

Reorganization of a fertilizer plant in Shiraz, Iran.

From: April 1956 To: August 1966

(with a two-months interruption for the above mission in Iran)

R. Employer (Name and Address) and Type of Business:

Österreichische Stickstoffwerke (now Chemie Linz) AG. in Linz, Austria

Title of Post and Nature of Duties:

- planning and supervising the construction of chemical and petrochemical units;
 - taking care that the following plants are kept in good working condition: sulphuric acid from sulphur and from by-product gypsum, superphosphate, phosphoric acid, blended and complex fertilizers, CAN, etc.
 - co-ordination problems and industrial policy;
 - receptions of delegations from other important enterprises and foreign government delegations, high level negotiations.
-

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UNITED NATIONS

PERSONAL HISTORY STATEMENT (PROJECT PERSONNEL)

(TARS 2)

THIS INFORMATION MAY BE SUBMITTED TO MEMBER GOVERNMENTS

DATE: 17 February 1976

SIGNATURE: *W. Schmid*

1. NAME: Wilhelm Schmid

2. NATIONALITY: Austrian

3. PRESENT ADDRESS: Hietzinger Hauptstr. 140a
A-1130 Vienna, Austria

4. DATE OF BIRTH: 29 May 1914

5. MARITAL STATUS: married

6. KNOWLEDGE OF LANGUAGES:

Mother Tongue: German

OTHER LANGUAGES	READ		WRITE		SPEAK		UNDERSTAND	
	EASILY	NOT EASILY	EASILY	NOT EASILY	FLUENTLY	NOT FLUENTLY	EASILY	NOT EASILY
<u>English</u>	<u>quite</u>		<u>quite</u>			<u>X</u>	<u>quite</u>	
<u>French</u>	<u>quite</u>		<u>quite</u>		<u>quite</u>		<u>quite</u>	

7. EDUCATION: (see Instruction 5)

DATES ATTENDED		NAME and LOCATION of INSTITUTION of LEARNING	ACADEMIC DEGREES and CERTIFICATES or DIPLOMAS OBTAINED	MAIN FIELD of STUDY
From	To			
<u>1920</u>	<u>1924</u>	<u>Primary School</u>		
<u>1924</u>	<u>1931</u>	<u>College</u>	<u>Maturity diploma</u>	
<u>1931</u>	<u>1937</u>	<u>Vienna Technical University</u>	<u>Engineer's Diploma</u>	<u>Civil Engineering</u>

8. LIST ANY PUBLICATIONS OR PAPERS: (see instruction 6)

9. LIST SPECIAL QUALIFICATIONS AND SKILLS CONFIRMED BY LICENSES HELD AND MEMBERSHIP IN PROFESSIONAL, CIVIC, PUBLIC OR INTERNATIONAL SOCIETIES OR INSTITUTIONS RELEVANT TO YOUR APPLICATION; INDICATE THE CLASS OF MEMBERSHIP WHEN APPROPRIATE:

10.

PROFESSIONAL EXPERIENCE (see Instruction 7)

<p>A.</p>	<p>From: 1971 To most recent date of employment: still employed</p> <p>EMPLOYER (Name and Address) AND TYPE OF BUSINESS: Municipality of Vienna, Division 48</p> <p>TITLE OF POST AND NATURE OF DUTIES: Director of the Section for Household Refuse Collection All questions related to the collection of household refuse</p> <p>NUMBER AND KIND OF EMPLOYEES SUPERVISED: clerical staff, 50 supervisors, 550 workers</p>
<p>B.</p>	<p>From: 1957 To: 1971</p> <p>EMPLOYER (Name and Address) AND TYPE OF BUSINESS: Municipality of Vienna, Division 48</p> <p>TITLE OF POST AND NATURE OF DUTIES: Chief of Section for Street Cleaning</p> <p>NUMBER AND KIND OF EMPLOYEES SUPERVISED: clerical staff, 70 supervisors, 730 workers</p>
<p>C.</p>	<p>From: September 1945 To: 1957</p> <p>EMPLOYER (Name and Address) AND TYPE OF BUSINESS: Municipality of Vienna, Division 30</p> <p>TITLE OF POST AND NATURE OF DUTIES: Engineer in charge in the Sewage Division</p> <p>NUMBER AND KIND OF EMPLOYEES SUPERVISED: clerical staff</p>

U N I T E D N A T I O N S

PERSONAL HISTORY STATEMENT (PROJECT PERSONNEL)

(TARS 3)

THIS INFORMATION MAY BE SUBMITTED TO MEMBER GOVERNMENTS

(see instruction 8)

ANALYSIS OF RELEVANT EXPERIENCE: Use this space to analyse your experience in relation to your statement concerning your specialization. Additionally, if you are applying for a specific post, please indicate the number of the Job Description of his post and analyze your experience in relation to the duties and requirements set out in the Job Description.

Familiar with all problems of household refuse collection and its use for power generation and composting, organization, maintenance and parking of the vehicle fleet hold for the refuse collection and timing of the supply of the refuse to the plants where it is processed.

UNITED NATIONS

INTERNATIONAL ENERGY STORES (PROJECT PERSONNEL)

(FORM 2)

THIS INFORMATION MAY BE SUBJECT TO EXPORT CONTROL GOVERNMENTS

20 February 1976

Handwritten signature

1. NAME: Armin RUMPOLD, Dipl. Ing.
 3. PRESENT ADDRESS: Schönbrunner Allee 32
 A-1120 Vienna, Austria

2. NATIONALITY: Austrian
 4. DATE OF BIRTH: 16 April 1941
 5. MARITAL STATUS: married, 2 children

6. KNOWLEDGE OF LANGUAGES

OTHER LANGUAGES	Mother Tongue: German							
	READ		WRITE		SPEAK		UNDERSTAND	
	EASILY	NOT EASILY	EASILY	NOT EASILY	FLUENTLY	NOT FLUENTLY	EASILY	NOT EASILY
English	x		x		x		x	
French	quite		quite		quite		quite	
Norwegian								
Swedish								

7. EDUCATION: (see Instruction 5)

DATES ATTENDED		NAME and LOCATION of INSTITUTION of LEARNING	ACADEMIC DEGREES and CERTIFICATES, DIPLOMAS OBTAINED	MAIN FIELD of STUDY
From	To			
1951	1958	College, Krems, Austria	Final Certificate	Telecommunication & Electronics Application Programming Industry
1958	1963	Technical University, Vienna	Diploma in Engineering	
1964	1967	IBM, CDC, Oslo, Stockholm, Vienna	Programming and Program Design	
1969	1969	IBM Advanced Management Institute, Brussels	Project Management Education	

8. LIST ANY PUBLICATIONS OR PAPERS: (see instruction 6)

- "Coolant Void Reactivity Effects in the Second Charge of HBWR, Part III: Integral Experiments", OECD Halden Reactor Project HPR-41 (co-author).
- "Calculation of Group Cross Sections for the Neutron Capture in Fission Products and Detector Materials", OECD Halden Reactor Project HIR-50.

9. LIST SPECIAL QUALIFICATIONS AND SKILLS CONFIRMED BY LICENSES HELD AND MEMBERSHIP IN PROFESSIONAL, CIVIC, PUBLIC OR INTERNATIONAL SOCIETIES OR INSTITUTIONS RELEVANT TO YOUR APPLICATION, INDICATE THE CLASS OF MEMBERSHIP WHEN APPROPRIATE:

Member of IFIP (International Federation of Information Processing)

PROFESSIONAL EXPERIENCE (Continued)

From: 1975 To: still employed

EMPLOYER (Name and Address) AND TYPE OF BUSINESS:

ÖKODATA GesmbH & Co KG, Consulting Firm

TITLE OF POST AND NATURE OF DUTIES:

Manager, Design of programme structures in hospitals
Patient Admission - Data Collection, using computers
Statistical Programmes for the Ministry of Health

NUMBER AND KIND OF EMPLOYEES SUPERVISED: 12

From: 1973 To: 1974

EMPLOYER (Name and Address) AND TYPE OF BUSINESS:

TITLE OF POST AND NATURE OF DUTIES:

Consultant for EDP and bookkeeping organisation
Project development in the educational and medical field.
(EDP in hospitals)

NUMBER AND KIND OF EMPLOYEES SUPERVISED:

From: 1967 To: 1972

EMPLOYER (Name and Address) AND TYPE OF BUSINESS:

IBM Austria, Computer Manufacturer

TITLE OF POST AND NATURE OF DUTIES:

Sales-Representative for the Educational, Medical and Social
Security Field
Sales-Representative for UNIDO and IAEA in Vienna

NUMBER AND KIND OF EMPLOYEES SUPERVISED: 2

ANALYSIS OF COST PROPOSAL

PART I

TOTAL
COST

1. PROFESSIONAL SERVICES

A. Project Area

<u>Position Title</u>	<u>Man Months</u>	<u>Cost per Man Month</u>	
Team Leader.....	1/2..	\$ 5.500.....	\$ 2.750.....
Refuse Collection Exp;.....	1/2..	\$ 4.400.....	\$ 2.200.....
Computer Expert..	1/2..	\$ 4.400.....	\$ 2.200.....
.....	\$
TOTAL PROJECT AREA			\$ <u>7.150</u>

B. Home Office

<u>Position Title</u>	<u>Man Months</u>	<u>Cost per Man Month</u>	
Refuse Collection Exp;.....	1/2..	\$ 4.400.....	\$ 2.200.....
Computer Expert..	1/2..	\$ 4.400.....	\$ 2.200.....
TOTAL HOME OFFICE			\$ <u>4.400</u>

2. SUBSISTENCE

A. Project Area

.42.. man/days at \$ 30.... per day. \$ 1.250.....

B. Briefing and De-briefing

..... man/days at \$..... per day. \$

C. Other (specify)

..... man/days at \$..... per day. \$

TOTAL SUBSISTENCE \$ 1.250

3. TRAVEL AND TRANSPORTATION (specified in PART II B below)

\$ 1.990

4. REPORTS

\$ 8.000

5. OTHER DIRECT COSTS (specify)

..... \$

..... \$

..... \$

TOTAL OTHER DIRECT COSTS \$ 24.040

(continued)

	TOTAL COST
6. <u>EQUIPMENT, MATERIALS AND SUPPLIES</u>	
Equipment	\$.....
Materials and Supplies	\$.....
TOTAL EQUIPMENT, MATERIALS AND SUPPLIES	\$.....
7. <u>SUBCONTRACTS (specify)</u>	
.....	\$.....
.....	\$.....
TOTAL SUBCONTRACTS	\$.....
8. GRAND TOTAL ITEMS 1 - 7 CONTRACT PRICE:	\$ 24.040

PART II

A. CURRENCY REQUIREMENTS

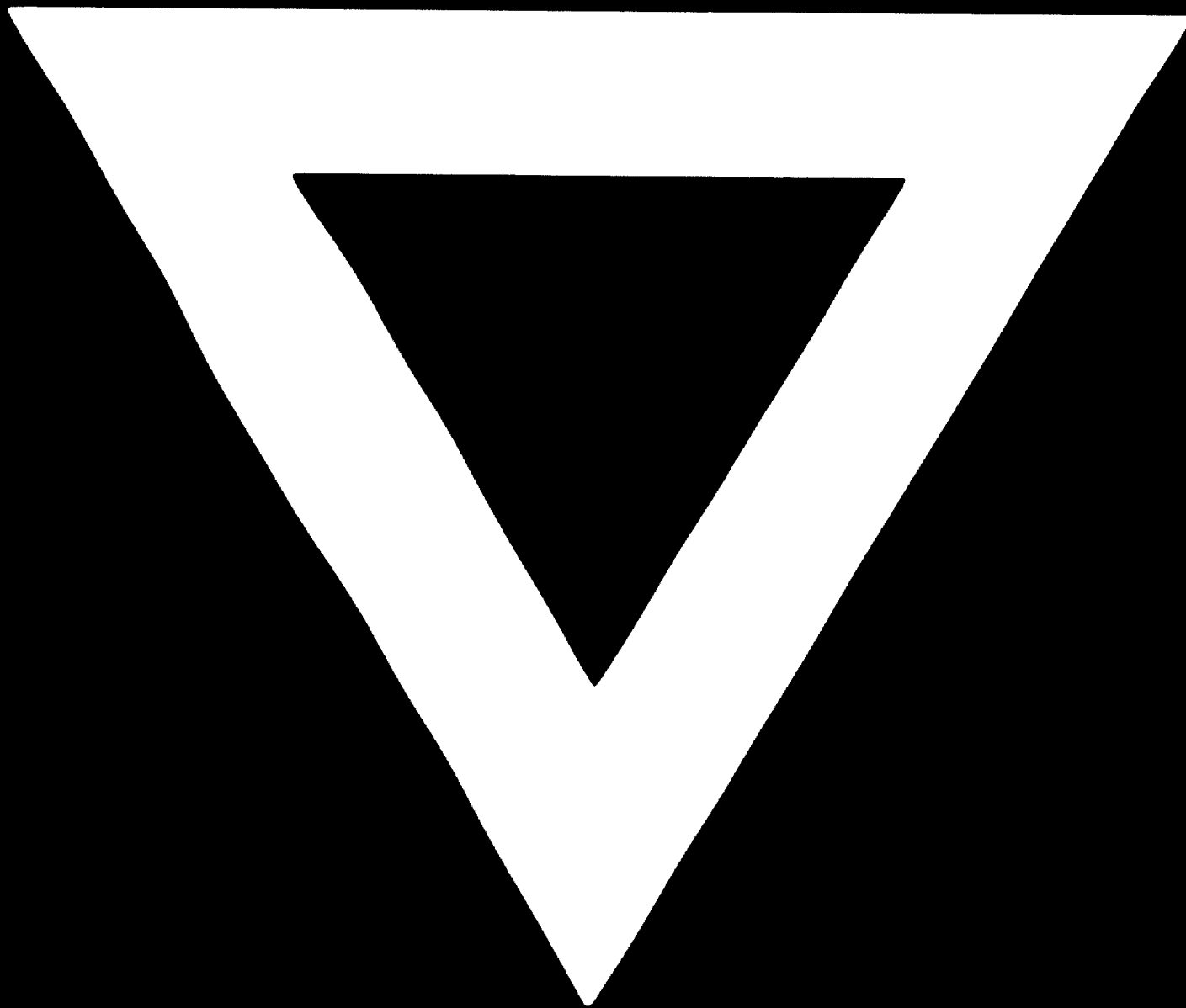
- a) Contractor's Currency \$.....
- b) Local Currency \$.....
- c) Other Currency U.S. \$... **24.040**.....

B. TRAVEL AND TRANSPORTATION EXPENSES

3 Economy class round trip tickets to Casablanca	\$ 1.590
Terminal expenses in Vienna	\$ 100
Terminal expenses in Casablanca	\$ 65
3 x 10 kg excess luggage	\$ 235
TOTAL	\$ 1.990



B-898



82.09.23