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TRIP REPORT TO HUNGARY

MAY 3 - 9, 1992

By: Dr. Bohdan Aftanas

**World Environment Center
419 Park Avenue South, Suite 1800
New York, New York 10016**

May 1992

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I. PURPOSE OF TRIP

The purpose of this trip was to participate in the workshop on "How to Conduct and Successfully Implement an Environmental Assessment" organized for the Hungarian chemical industry sector sponsored by the World Environment Center.

An additional purpose of this trip was to visit some of the industrial plants to review their needs for WEC's technical assistance programs on improving environmental and workers' health and safety conditions.

II. ITINERARY

May 3, 1992

- Arrival in Budapest and trip to Balatonszemes

May 4 & 5, 1992

- At workshop in Balatonszemes

May 6, 1992

- Trip to Instruments Manufacturing Plant - Ipari Muszergyar in Inklad

May 7, 1992

- Visit to Paper Mill - Papiripari Vallalat in Budapest
- Visit to Scientific Society of Hungarian Mechanical Engineers in Budapest
- At workshop in Balatonszemes

May 8, 1992

- At workshop in Balatonszemes

May 9, 1992

- Departure from Hungary

III. EXECUTIVE SUMMARY

The workshop on "How to Conduct and Successfully Implement an Environmental Assessment" organized and sponsored by WEC can be considered successful and very timely. Positive reaction of most participants indicated that the program was of great interest and right on target. Integrating environmental conditions at the plant with the economical values of the enterprise as presented at the training seminar, reflected a current trend and practice in this part of Europe in converting state ownership to a private - joint venture business structure. Thirty persons, mainly from the chemical industry, participated actively in this training and provided WEC with an excellent opportunity to discuss environmental concerns with a cross section of Hungarian industry and senior government officials.

The trip to Instruments Manufacturing Plant - Ipari Muszergyár confirmed that the enterprise has some problems with the disposal of industrial wastewater and wastewater sludge with high aluminum contents. The plant was interested in the possibilities of getting an expert, through WEC, who would review the plant operation and advise them regarding improvements to environmental and workers' health and safety conditions. A written request for assistance is expected from the plant.

The Scientific Society of Hungarian Mechanical Engineers (SSHME) is interested in organizing an environmental training - workshop for industrial enterprises involved in galvanizing, heat treatment, hardening and similar types of manufacturing processes. SSHME will send WEC an official request for cooperation. They will also develop alternate proposals specifying areas of cooperation and will submit them to us for possible consideration.

IV. MEETINGS AND DISCUSSIONS

May 4, 5 & 8, 1992

I participated in WEC's workshop on "How to Conduct and Successfully Implement an Environmental Assessment Program". This was sponsored by WEC and the Hungarian Ministry for Industry and Trade. WEC's contribution included training manuals, financing the cost involved for four (4) trainers from the U.S. and assistance in organizing the workshop. The Ministry of Industry and Trade assisted in the logistics of the workshop, including selecting and contacting plants and the training organizer which was the Federation of Hungarian Chemical Workers' Trade Union.

The Ministry of Industry and Trade also participated actively in the workshop. Dr. Arpad Bakonyi presented the Ministry's policy regarding environmental issues at Hungarian enterprises. Also, at the workshop the current status of environmental law as applied to industry was presented by the representative from the Ministry for Environment and Regional Policy. Thirty (30) persons from chemical and related industries participated in this training. Based on positive reactions of participants, the subject matter of the workshop, as well as its format, was well received with great interest and attention. One factor contributing to such interest was the fact that the program, in addition to presenting techniques on the preparation of environmental assessment, also addressed implications of environmental factors on the economic side of the

enterprises. The demonstration part of the training took place at the Nitrokemia Plant which indicated their desire to reach out in cooperation.

May 6, 1992

At the request of the Instruments Manufacturing Plant - Ipari Muszergyar, near the village of Inklad, located approximately 25 km northeast of Budapest, I met with Mr. Laszlo Kovacs, Head of Services and Environmental Department. The plant was built in 1951, covers about 1.2 square miles and employs 1600 people of which 60% are technically trained workers and the remaining 40% administrative employees.

During the communist regime, the plant manufactured instruments for military purposes. Presently, they are producing various types of small electric motors (size ranging from 0.15 HP to 4 HP). In addition, they produce submersible pumps (with electric motors rated from 0.12 kw to 1.5 kw), vertical wetwell pumping assemblies, close coupled pumping units (up to 2 HP), hydromatic water handling units, axial fans and ventilators, automatic hand dryers and electric grass cutting machines.

Annual sales are in the range of 2.0 billion Forints (about \$25 million). The

plant has an aluminum smelter which satisfies the factory's demands. The water supply for sanitary and process requirements is delivered from the plant's nine (9) deep wells (depth of those wells ranges between 50 m to 100 m). Water quality is such that there is no need for treatment, with the exception of the boiler requirements. In this case, water is softened on ion exchange units. For production purposes, the main water use is for cleaning products and for use in the galvanizing process.

Daily water consumption totals 500 m³ of which about 60% is used for sanitary purposes with the balance for production processes. Electric power for the plant is purchased from a utility company. The boiler plant with a heating surface of 400 m² uses hard coal and the flue gases are discharged through the stack without any emission controls.

Sanitary sewage is collected in the separate sewer system and conveyed to the existing treatment plant. The existing sanitary sewage treatment plant consists of primary and secondary stages which include a primary settling tank (Imhoff type), trickling filters, secondary settling tank and chlorine contact chamber. The sludge is digested in the digestion compartment of the Imhoff tank and discharged into open drying beds.

According to plant management, process wastewater prior to discharge into an

existing stream undergoes pH adjustment and oil removal.

Field observations made during this visit indicate that the plant has problems with the quality of the process wastewater effluent.

Rainwater runoff from the polluted plant area and the process wastewater are collected by a dike running along the plant property which discharges into the existing stream.

Plant management is interested in WEC's technical assistance in improving environmental conditions at the factory. They are especially interested in obtaining a U.S. specialist who could advise them on the handling of sludges, recovery of wasted aluminum and on workers' health and safety conditions. My general observations made during this reconnaissance visit indicate that the plant should begin with elementary housekeeping, cleaning and basic maintenance work at the site. The surface of the site is saturated with oil and other spills and the exterior elevations of the buildings desperately need repairs. There is almost a complete absence of any landscaping. The overall appearance of the plant leaves much to be desired and most likely adversely affects the general atmosphere and worker's productivity.

May 7, 1992

The visit to Paper Mill - "Papiripari Vallalat" in Budapest ended quickly when Mr. Gabor Domokos, Division Director, informed me that the plant now has a partner. He said that they just signed a joint venture agreement with an Austrian firm who became a new co-owner. In view of this situation, I explained that their plant is no longer eligible for WEC's technical assistance program.

May 7, 1992

Visited the Scientific Society of Hungarian Mechanical Engineers (SSHME) in Budapest and met with Prof. Dr. Tibor Konkoly - President of Metal Hardening and Heat Treatment Division, Dr. Friwaldszky Gyula, Executive Director and Dr. Szilvia Somogyi - Secretary.

SSHME is interested in WEC's activities in Hungary. They especially wanted to know if WEC can participate as a co-sponsor in SSHME's environmental training for the mechanical sector of the industry. I responded with assurance that WEC will review the feasibility of such cooperation after receiving a written proposal from SSHME outlining the suggested program and other specifics.

V. FOLLOW-UP ACTION AND RECOMMENDATIONS

1. The training workshop organized at Balatonszemes was one of the most attractive and useful WEC programs to reach a relatively large group of managers from the most environmentally difficult industry. Based on observations made during this workshop, I suggest that for future workshops a moderator from WEC is needed to guide the program because the trainers are too occupied presenting their material. I also recommend that, if feasible, training material should be printed on different color paper which could substantially facilitate the use of the manual and/or documents.

2. The request from the Instrument Manufacturing Plant - Ipari Múzeumgyár for a U.S. expert should be considered a low priority item. The environmental issues at this plant are relatively small scale, and improvements which could result from recommendations of WEC's expert would have quite limited environmental impact.

3. Experience with the Paper Mill - "Papiripari" indicate that prior to any action by WEC or even a WEC staff visit to the plant, it is recommended to verify the status of the enterprise's ownership.

4. The Scientific Society of Hungarian Mechanical Engineers' offer regarding cooperation should be reviewed after receiving a written request with their specific proposal. The feasibility of such collaboration will depend on the project's compatibility with WEC's future programs in Hungary.

VI APPENDICES

APPENDIX A

LIST OF WORKSHOP PARTICIPANTS

<u>PARTICIPANT NAME</u>	<u>PLANT NAME</u>	<u>TITLE-POSITION</u>
1. Molnar Gabor	Tisza Mineral Oil Co.	Water and Environmental, Laboratory Chief
2. Dr. Nagy Arpad	Budapest Chemical Works	Chief of Environmental Department
3. Dr. Csopakine Fock Ibolya	Caola Cosmetic Manufacturing Co.	Environmental Expert
4. Dr. Mogyorocli Forenc	North Hungarian Chem. Works	General Manager
5. Szontagh Tamas	Chemical Works of Gedeon Richter Ltd. (Pharmaceutical)	Head of Environmental Department
6. Szabo Zsolt	"	Department for Environmental Protection, Chemical Engineer
7. Lontaine Odor Erzsebet	Pharmaceutical Plant (Joint vent. w/Fr.)	Environmental Expert, Chemical Engineer
8. Lengyel Bela	Mineral Oil Commercial Enterprise	Department for Energy & Environment
9. Kalman Gyorgy	Chemical Works in Tisza	Director
10. Molnarne Tako Ilona	Petroleum Refinery	Head of Energy and Environmental Department, Mechanical Engineer
11. Bajusz Andras	Chemical Fibre Plant Viscosa	Water Supply & Environmental Manager, Environmental Expert
12. Erdelyi Janos	"	Chief Technologist
13. Mihalyi Gyorgy	Pharmaceutical Plant	Technical Director
14. Kiss Csaba	"	Head of Technical Department, Chemical Engineer
15. Paal Tamasne	Institute for Safety in the Chemical Explosive Industry	Head of Office for Environmental Protection

<u>PARTICIPANT NAME</u>	<u>PLANT NAME</u>	<u>TITLE-POSITION</u>
16. Pataki Zsuzsanna	Institute for Safety in the Chemical & Explosive Industries	Department for Environmental Protection, B i o l o g i c a l Engineer
17. Komassy Tamasne	Institute for Safety in the Chemical & Explosive Industries	
18. Kelemen Istvanne	"	
19. Dr. Schandl Vilmosne	National Research Institute of Occupational Safety	Manager - Chemist
20. Marton Ferenc	Borsod Chem. Works	
21. Bihari Gyula	"	
22. Feketene-Nagyne Torok Judit	"	
23. Foldes Gyorgy	South-Transdanubian Gas Supply Enterprise - Pecs	Head of the Department of Health & Safety
24. Dr. Kertesz Laszlo	Hungarian Aluminum Corp.	Corporate Director Health, Safety & Environment
25. Baracscai Jozsef	Chemical Works "Nitrokemia"	Technical Director
26. Szakalyi Aron	Bauxide Research Co.	Head of Production Department - Oil Engineer
27. Molnar Jozsef	Inota Aluminum Smelter Co.	Metallurgical Engineer
28. Szabo Lajos	Petroleum Refinery Kamarom	
29. Zalaba Ferenc	Petroleum Refinery Komarom	Environmental Expert
30. Papp Vilmos	Federation of Hungarian Chemical Workers Trade Union	Environmental Expert

APPENDIX B
BUSINESS CARDS OF WORKSHOP PARTICIPANTS & CONTACTS



Howard D. Clark
Másodtitkár

Az Amerikai Egyesült Államok Nagykövetsége

Budapest, V.
Szabadság tér 12.
1054

Telefon: 1126-450

GYÖRGY KÁLMÁN
director

Vízszil Vagyó Kombinát
H-3581 Tiszaujváros, P.O.B. 20
Telephone: -36 49 21 983
Telex: 22 6419
FAX: -36 49 21 322
HUNGARY



5

CSOM JÓZSEF
Ministry for Environment
and Regional Policy

9



CSABA KISS
CHEM. ING.
HEAD OF TECHNOLOGICAL
DEPARTMENT

H-1106 Budapest, Keresztúri út 30-38
Phone: 163-4050 Telex: 22-4101 egis h
Telefax: (361) 183-4554

10



Dr. László Kertész
Corporate Director,
Health, Safety & Environment

Hungarian Aluminium Corporation
1133 Budapest XIII.,
Pozsonyi Street 56.
HUNGARY.

Phone: (361) 1494-162
Telex No. 22-5471
Telefax: (361) 1495-587

6

ERDELYI FANOS
chief technologist
MAGYAR VISZOSAGYÁR
NYERGESÚJFALU

7

BAJUSZ ANDRÁS
környezetvédelmi szakmérnök
vizsgáló és környezetvédelmi üzemvezető



magyar H-2537 NYERGESÚJFALU
viscosagyár Telefon: 33/55-088, 33/55-244
Fax: 33/55-541 - Telex: 22-5826

8

József MOLNÁR
dipl. met. eng.

Ltd.
INOTA ALUMINIUM SMELTER
8104 VÁRPALOTA 4. Pl. B.
Phone: 80/5270 71-244
Telex: 03-22-30



WEC World Environment Center

ZSUZSANNA DORKO
COORDINATOR FOR HUNGARY
TECHNICAL PROGRAMS

WORLD ENVIRONMENT CENTER
419 PARK AVENUE SOUTH
SUITE 1800
NEW YORK, N.Y. 10016
TEL: (212) 663-4700
FAX: (212) 663-5071

BUDAPEST
SZENTENDRE II-2000
MAGY ARORSZÁG
TEL: (36) 11-547

8

WEC World Environment Center

SAMUEL HALE, JR.
REGIONAL ENVIRONMENTAL ADVISOR

SIEVERINGER STRASSE 209
A-1190 VIENNA

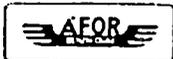
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FÖLDÉRSI GYŐRFŐ
Műanyag- és Textilgyártó Vállalat

Déldunántúli Környezetvédelmi Válságkezelési Központ
7626 Pécs, Irány: Dániel tér 1/A Pl. 169

AFOR
ÁSVÁNYOLAJFORGALMI VÁLLALAT
Energia és Környezetvédelmi Osztály



LENGYEL BÉLA
osztályvezető

1061 Budapest VI.
Dalszínház u. 1.

Telefon: 221-209
Telex: 22-6922



16

SZAKÁLY ÁRON
okl. olajmérnök
termelési osztályvezető



20



Dr. Ferenc Magyaródi
DIPL. CHEM.
CAND. CHEM. SCIENCES
GEN. MAN.

NORTH HUNGARIAN CHEMICAL WORKS
3792. SAJÓBÁBONY

Tel: 46-61012
Telex: 62 320
Telefax: 46-4364

BAUXITKUTATÓ VÁLLALAT
8221 Balatonalmádi, Pf. 31.
Telefon: 86/38-110

Lakás:
8220 BALATONALMÁDI



National Research Institute
of Occupational Safety

Susan SCHANDL M.Sc.
chemist, anal. engineer
joint manager

Home:
H-1021 Budapest II.,
Széphalom u. 10/b.

Office:
H-1021 Budapest II.,
Ótvös János u. 1-3.
Phone: 367657
Telex: 227079

INSTITUTE FOR SAFETY IN THE CHEMICAL AND
EXPLOSIVES INDUSTRY

Department for Environmental Protection



Ms. ZSUZSANNA PATAI
Biol. Eng.

H-1118 Budapest XI., Serleg u. 9.
Telefon: (36-1)811-918 Telex: 22-7247 VRF H Fax: 1664419



FEKETE NAGYNÉ TÖRÖK JUDIT
okl. biológus környezetvédelmi szakmérnök
környezetvédelmi osztályvezető

BORSODCHEM RT.
KAZINCBARCIKA H-3702 PF.: 208.

Telefon: 48/10-211/12-25
Telefax: 48/11-839
Telex: 64-222

V. R. F.
SAFETY AND ENVIRONMENTAL PROTECTION COMPANY
FOR THE CHEMICAL AND EXPLOSIVE INDUSTRY

Ágnes KOMÁSSY
M. Sc. (Mech. Eng)
Head of Safety Department

H-1119 Budapest
Hengermalom u. 2/D.
Tel.: (361) 161-3863
(361) 181-3914

Head Office: H-1119 Budapest, Serleg u. 9.
Mailing address: H-1519 Budapest, P.O.B.: 318
Tel.: (361) 161-1087, 185-1476
Fax: (361) 166-4419 Telex: 22-7247

INSTITUTE FOR SAFETY IN THE CHEMICAL AND
EXPLOSIVES INDUSTRY

Office for Environmental Protection



Mrs. dr. HELGA PAÁL
Chem. Eng.
Specialized engineer in
environmental protection
Head of Office

H-1118 Budapest XI., Serleg u. 9.
Telefon: 36-1-1642-013-Telefax: 36-1-1664-419 Telex: 22-7247 VRF H

CHEMICAL WORKS OF GEDEON RICHTER LTD. HUNGARY

1103 Budapest, X Gyömrői út 19-21, Tx 22-5067, Fax 147-3973

TAMÁS SZONTAGH
Head of Department

Dept. for Env. Prot. H-1475 Budapest, 10. P. O. B.: 27.
Phone: 1473-333 1770-400, 1574-566

CHEMICAL WORKS OF GEDEON RICHTER LTD. HUNGARY

1103 Budapest, X Gyömrői út 19-21, Tx 22-5067, Fax 147-3973

ZSOLT SZABÓ
Chemical Engineer

Dept. for Env. Prot. H-1475 Budapest, 10. P. O. B.
Phone: 1473-338, 1770-400, 1574-566



Márton Ferenc
környezetvédelmi főmérnök

HUNGARY, KAZINCBARCIKA 3702, PF.: 2
TELEFON: 48-10-211, 11-211, TELEX: 064-222, TELEFAX: 46-54

VEGYI- ES ROBBANÓANYAGIP
FELÜGYELET

1118 Budapest XI., Serleg u. 9.
Telefon: 161-1087, 185-1476
Telex: 22-7247; Telefax: 166-4119

KELEMEN ISTVÁNNÉ

okl. vegyész. műszeres anal. szakmérnök
osztályvezető

Telephely:
1119 Budapest, Hengermalom u. 2/D Telefon: 181-3

Head of Department

University of Veszprém
Department of Chemical Engineering
&
School of Environmental Engineering

Veszprém, Egyetem u. 10. POB. 158. 11-8201 HUNGARY
Tel.: (36) 80-25 049 Fax: (36) 80-26 016 Telex: 32397 vegye h

AD NAGY dr

Phone: 00-36-1-127-7250
Fax: 00-36-1-147-6123

Budapest Chemical Works
H-1097 Budapest IX., Ilatos út 19-23.
H-1455 Budapest P.O.B. 1.

32

Monica M. Duss
Senior Environmental Program M

SAIC Science Applications
International Corpora
An Employee-Owned Company

1710 Goodridge Drive, McLean, Virginia
Office: (703) 821-4461 FAX: (703) 356

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TIBOR KUN-SZABÓ Dr.-Ing.
Assistant Professor

Privat:
Hungary, Veszprém
Viola u. 26.
H-8200

Office:
Univ. of Veszpre
Dept. of Chem. Tech.,
Veszpre. P.O.B. 158
Tel.: (80) 22-022
Fax.: (80) 26-016

33

COMAREC
RESPIRATOR RT.

KÖLLÖNÉ ÉSIK EMÍLIA
üzletkötő

Telefon: 147-6321 • Fax: 127-6263 • Tx: 22-593
1097 Budapest, Ilatos út 9. • 1476 Budapest, Pf. 163

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MOL RT ZALAI FENYŐTŐ

MOLNÁRNÉ TAKÓ ILONA
okl. gépészmérnök
energia osztályvezető

ZALAI KŐLAJIPARI VÁLLALAT
8901 Zalaegerszeg, Pf.: 21

Telefon: (92) 11-320
Telex: 33-287
Telefax: (92) 11327

34

Mr. Stephen Wassersug
Program Manager

**The Regional
Environmental
Center**

for Central and Eastern Europe

Miklós tér 1 • 1035 Budapest
Hungary

Phone: (36-1) 168-6284
168-8203 • 168-8685 • 168-9413
Fax: (36-1) 168-7151



35



KOMÁROMI KŐLAJIPARI VÁLL

ZALABA FERENC
környezetvéd. szakmérnök
környezetvédelmi főmunkatárs

Lakcím: 2931 Almászlúzó,
lakótelep

Tel 34-47 757
Telefon: Komárom 13:
Lakás: Komárom 13:

JAY K. GRONLUND
Managing Director

50 East 42nd Street
New York, N.Y. 10017
(212) 697-3181

Telex: 5101006717 ESLUD
Fax: (212) 697-3873

THE PATHFINDER GROUP, INC.

31

MAGYAR VEGYIPARI DOLGOZÓK
SZAKSZERVEZETI SZÖVETSÉGE
Chemical Workers' Trade Union

Papp Vilmos
környezetvédelmi szakértő
expert in environmental protection

1068 Budapest, Benczúr u. 15.
Telefon: 142-1776; 142-1777
Telex: 22-3420
Telefax: 142-9975

Lakás:
2091 NAGYKOVACSÍ,
Lentén ter 15b.
Telefon

102 LAFAYETTE DR.
WASHINGTON CROSSING, PA 18977

PHONE & FAX
(215) 493-8426

JOHN D. BEHUN, Ph.D.

TRANS-ACTIONS
ENVIRONMENT & BUSINESS DEVELOPMENT
DOMESTIC & INTERNATIONAL

102 LAFAYETTE DR.
WASHINGTON CROSSING, PA 18977

PHONE & FAX
(215) 493-8426

THE PATHFINDER GROUP, INC.



ABB Environmental Services, Inc.
261 Commercial Street
PO Box 7050
Portland, ME 04112
Tel. (207) 775-5400
FAX (207) 772-4762

25

26

27

28



Dr. Ákos Rédey
Head of Department

University of Veszprém
Department of Chemical Engineering
&
School of Environmental Engineering

Veszprém, Egyetem u. 10. POB. 158. H-8201 HUNGARY
Tel.: (36) 80-25 049 Fax: (36) 80-26 016 Telex: 32397 vegye h



SCIENTIFIC SOCIETY OF MECHANICAL ENGINEERS
H-1055 Budapest, Kossuth L. tér 6-8.

GYULA FRIWALDSZKY
Mech. Eng., Ec. Eng.
Executive Director

☒ H-1372 Budapest, P. O. Box 451,
☎ (36-1) 153-1240, 153-0340
☒ 22-5792 Tfx. (36-1) 153-0818

VEGYIPARI TUDOMÁNYOS EGYESÜLET
"VEGYIPROP" Vegyipari
Propaganda Központ KFT

Péterfy Lajos

Ügyvezető Igazgató
okl. munkavédelmi szakértő

1068 Budapest, Benczúr u. 45.
Telefon: 142-1776, 142-1777
Telex: 22-3420
Telefax: 142-9975

1173 Budapest
509 utca 1.



GÁBOR DOMOKOS
Divisionsdirektor

PAPÍRIPARI VÁLLALAT
H-1215 Budapest
Duna u. 42.

Tel.: 276-0624, 277-3955
Fax: 276-6770
Telex: 22-4017

Dr. Csom József
főmunkatárs
senior officer

Jogi és Igazgatási Főosztály

☎ Tel. 201-4133/490
Dep. of Legal and Administr.

SACIT Acéltanácsadó Kft.

Szirmainé Dr. Somogyi Szilvia
projekt koordinátor

Telefon: 161-0641
Fax: 181-0118
Telex: 22 6013

1116 Budapest
Fehérvári út 130.



Dr. Jürgen Gross
Worksmanager Waldshut

Deutsche ICI GmbH
Konstanzer Straße 15
D-7890 Waldshut-Tiengen 1
Telefon (077 51) 82-530 u. (077 51) 39 77
Telex 7 92264 iciw d



Dr. Árpád Nagy, M.Sc.
Environmental
Department

Phone: 00-36-1-127-7250
Fax: 00-36-1-147-6123

Budapest Chemical Works
H-1097 Budapest IX., Illatos út 19-23.
H-1455 Budapest P.O.B. 1.



NITROKÉMIA IPARTELEPEK
3124 Fűzfőgyártelep Pf. 45.

BARACSKAI JÓZSEF

okl. vegyészmérnök
műszaki vezérigazgató h.

Telefon: (80) 52-222
Telex: 32223

Telefax: (80) 51-705

MOLNÁR GÁBOR
okl. vegyészmérnök
vizez környezetvédelmi laborvezető

MOL Rt Tírnai fiuvíz
Tel. 49/11-122/11-93 -



BIHARI GYULA

okl. gépészmérnök munkavédelmi szakmérnök
biztonságtéchnikai és környezetvédelmi főosztályvezető

Tel: 48/10-211/13-16
116-15/125-24
Telefax: 48/11-839
Telex: 64222

BORSODCHEM RT.

KAZINCBARCIKA H-3702 Pf: 208.



Ipari Műszergyár
Iklad

ÜZEMFENNTARTÁSI
GYÁRSZERSZÁMOLÓ

2170 ASZÓD, Pf. 2
Telefon: 28-30-440/285
28-30-781/285
Telex: 285 255

KOVÁCS LÁSZLÓ
okl. gépészmérnök

Magda Milkovics
(06) 24 79 257

KOVARI ANNAMÁRIA,
dipl. Ing. arh.

175-1876 private

1068 BUDAPEST
Benczur u. 45
Phone: 1228-212
1421-775 (Ext. 776, 777, 778)
Telex: 22-3420
Telefax: 1429-975

industrogradnja
ZAGREB, Yugoslavia

