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INDUSTRIAL DEVELOPMENT ORGANIZATION

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**LIME IN INDUSTRIAL DEVELOPMENT:
A DIRECTORY OF ORGANIZATIONS
AND A BIBLIOGRAPHY**

**Sectoral Studies Series
No. 18, Volume II**

**SECTORAL STUDIES
STUDIES AND RESEARCH**

Robin SPENCE

Main results of the study work on industrial sectors are presented in the Sectoral Studies Series. In addition a series of Sectoral Working Papers is issued.

This document presents major results of work under the element Studies on Building Materials Industries in UNIDO's programme of Industrial Studies 1984/85.

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Mention of company names and commercial products does not imply the endorsement of UNIDO.

Preface

This directory and bibliography have been prepared in connection with a study issued earlier on the lime industry in developing countries ("Lime in industrial development: A UNIDO guide to its uses and manufacture in developing countries", UNIDO/IS.555). Dr. Robin Spence, of Intermediate Technologies Consultants Ltd., acting as UNIDO consultant headed a team of experts which included Mr. Michael Wingate, Mr. John Spiropoulos and Mr. Derek Miles, in the preparation of that report. This directory and bibliography draws on their contribution as well. Other valuable input into the directory has come from responses to a questionnaire sent out to industry and government officials in many developing countries by UNIDO. The contribution of those who responded to the survey is gratefully acknowledged.

UNIDO would also like to thank those who returned confirmation of address forms sent out with a draft version of the manual. About half were returned. In some instances the respondents were kind enough to supply information on organizations other than themselves which had either been omitted in the draft version of the directory or for which the information in the draft version was in error. The directory has been much improved by their help.

Contents

	Page
Part one - Lime Directory	1
Introduction	1
1. Manufacturers and distributors of lime producing equipment	3
2. Organizations which provide consultancy services to the lime industry	8
3. Lime manufacturer and distributor associations or other industry representatives	11
4. Organizations which conduct research and development in lime manufacture or use	15
5. Private and state organizations responsible for building research and documentation	21
 Part two - Lime Bibliography	 30
Introduction	30
1. Books	31
2. Articles and proceedings	35
3. Documents describing official and unofficial standards and specifications for lime and lime producing equipment	39
4. Periodicals	41

1

DIRECTORY OF
ORGANIZATIONS CONCERNED WITH LIME

INTRODUCTION

This Directory may be used in conjunction with the UNIDO Report "Lime in industrial development: A UNIDO guide to its uses and manufacture in developing countries" (UNIDO/IS.555).

It contains a partial list of organizations supplying equipment and consultancy services to the lime producing industry. Organizations engaged in research and information dissemination in the production, use and marketing of lime are also included.

These organizations have been classified as follows:

1. Manufacturers and distributors of lime producing equipment.
2. Organizations which provide consultancy services to the lime industry.
3. Lime manufacturer and distributor associations or other industry representatives.
4. Organizations which conduct research and development in lime manufacture or use.
5. Private and state organizations responsible for building research and documentation.

While UNIDO has endeavoured to ensure the accuracy of this list by contacting all of the organizations who are listed in it; not all have responded to the questionnaire. Of those contacted about 50 per cent have so far responded. Many of those not responding have been retained in the directory anyway since indirect information indicated that the listing in the directory is correct. There will no doubt remain cases of inaccurate addresses and inappropriate classifications. As for completeness not too much

can be claimed. This is the first such directory to be issued and future versions, which will be released as new information warrants, will no doubt be much improved.

It is hoped that those who belong to or know of organizations which are not included will inform UNIDO so that future versions of this directory can be made more complete. Only through the active co-operation of the people in this important industry can this directory be made to better serve the industry and its clients' needs.

A number of organizations who responded to the questionnaire sent out to confirm addresses have also provided information on other organizations and this contribution is greatly appreciated.

Correspondence in connection with this directory should be addressed to:

United Nations Industrial Development Organization
Sectoral Studies/Lime Directory
P.O. Box 300
A-1400 Vienna, Austria.

1. MANUFACTURERS AND DISTRIBUTORS OF LIME PRODUCING EQUIPMENT

AUSTRIA

VOEST - ALPINE AG
Dep. EHA 32
P.O. Box 2
A-4010 Linz/Donau
(Lime kiln systems, rotary)

BELGIUM

Ateliers Louis Carton S.A.
Chaussee d'Antoing, 55
B.P. No. 5
B-7500 Tournai
(Lime kiln systems, rotary)

Fabricom International/Carmeuse
Rue Gatti De Gamond 254
1180 Brussels
(Lime kiln system, shaft kilns and hydration systems)

S.A. CARMEUSE
13 A, rue du Château
B-5210 Seilles
(Lime producing equipment)

Zoubov Engineers
Avenue de Saturne
B-1180 Bruxelles
(Lime kiln systems, rotary)

CANADA

Calcimatic Ltd.
2 Dunbloor Rd., Islington
Toronto 12
Ontario M9A 2E4
(Lime kiln systems, calcimatic)

CZECHOSLOVAKIA

Prerovské strojířny n.p.
750 53 Prerov
(Lime kiln systems, rotary and shaft)

Pragoinvest
Ceskomoravska 23
180 56 Praha 9
(Lime kiln systems)

DENMARK

F.L. Smidth & Co A/S
Vigerslev Alle 77
Valby
Dk-2500 Copenhagen
(Lime kiln systems, rotary and stationary calciners)

1. MANUFACTURERS AND DISTRIBUTORS OF LIME PRODUCING EQUIPMENT, continued

FRANCE

Creusot Loire
42 rue d'Anjou
F-75008 Paris
(Lime kiln systems, rotary)

FIVES CAIL BABCOCK
7 rue Montalivet
F-75383 Paris Cedex 17
(Lime producing equipment)

DELOT
22 Boulevard de Belgique
F-10000 Troyes
(Lime producing equipment)

GERMANY, FEDERAL REPUBLIC OF

Dipl. Ing. K. Beckenbach
D-4005 Büberich
(Lime kiln systems)

Mannesmann-DEMAG AG
Hüttentechnik
Forstrasse 16
D-4000 Düsseldorf 13
(Lime kiln systems, shaft kilns)

Feuerfest GmbH
D-6654 Kirel/Saar
(Lime kiln systems, shaft kilns)

Fiedler KG Ofenbau
Ulmenweg 22
D-6368 Bad Vilbel
(Lime kiln systems)

IBAG-Vertrieb GmbH
P.O. Box 308
D-6730 Neustadt/Weinstr.
(Lime plant supply)

Klöckner-Humboldt-Deutz AG
P.O. Box 80 05 09
D-5000 Köln 80
(Lime kiln systems)

Kolsen Folzer-Werke AG
D-5900 Siegen
(Lime kiln systems, shaft kilns)

1. MANUFACTURERS AND DISTRIBUTORS OF LIME PRODUCING EQUIPMENT, continued

GERMANY, FEDERAL REPUBLIC OF, continued

Maerz Ofenbau GmbH
Postfach 5406
D-4000 Düsseldorf 1
(Designing lime kilns)

Krupp Polysius AG
Graf-Galen-Str. 17
Postfach 23 40
D-4720 Beckum
(Lime kiln systems, rotary)

ITALY

CIMPROGETTI S.P.A.
Via Broseta nr. 70/A
I-24100 Bergamo
(Lime kiln systems, rotary)

Fercalx S.R.L.
Via Bergamo 43
I-24047 Treviglio (Bergamo)
(Lime kiln system, shaft kilns and hydration system)

ROMANIA

VITROCIM - FOREXIM
Edgar Quinet str. no. 9
Bucharest
(Lime producing equipment)

SWITZERLAND

MAERZ OFENBAU AG
Richard Wagner-Strasse 28
CH-8002 Zürich
(Lime Kiln systems, shaft kilns)

UNITED KINGDOM

Evinson-White Ltd.
General Building
Addiscombe Road, Croydon
Surrey CRO 5PE
(Lime kiln systems, shaft)

Fluostatic Ltd.
Borough Green
Kent
(Lime kiln systems, fluidised bed)

International Combustion Products Ltd
15 Woborn Place
London WC1
(Drying systems for kiln feed)

1. MANUFACTURERS AND DISTRIBUTORS OF LIME PRODUCING EQUIPMENT, continued

UNITED KINGDOM, continued

Milton Engineering Services
Peters Works
Wouldham, Rochester
Kent
(Lime handling plant for pollution control)

Sturtevant Engineering Co
Hamlyn House
Highgate Hill
London N19 5PP
(Hydration systems, Knibbs type; crushing and grinding)

UNITED STATES OF AMERICA

Allis-Chalmers Corporation
P.O. Box 2219
Appleton
Wisconsin 54913
(Crushing/conveying plant)

Azbe Corporation
St. Louis
Missouri
(Lime kiln systems)

Fuller Co.
Catasauqua, Pennsylvania
(Preheater system for rotary kiln)

Humboldt-Wegad
1 Huntingdon Quadrangle
Huntingdon Station
New York 11746
(Lime kiln systems)

Macawber Combustion Systems Inc.
Clydesdale Street
Blount Co. Industrial Park
Maryville, Tennessee 37801
(Combustion systems)

Polysius Corporation
380 Interstate North
Atlanta, Georgia 30339
(Kiln systems, rotary)

SECO/Warwick Corporation
420 Northgate Parkway
Wheeling, Illinois 60090
(Designing and manufacturing lime shaft kilns)

1. MANUFACTURERS AND DISTRIBUTORS OF LIME PRODUCING EQUIPMENT, continued

UNITED STATES OF AMERICA, continued

F.L. Smidth & Co

300 Knickerbocker Road

Cresskill, New Jersey 07626

(Lime kiln systems: rotary, shaft and preheater)

2. ORGANIZATIONS WHICH PROVIDE CONSULTANCY SERVICES TO THE LIME INDUSTRY^{1/}

COSTA RICA

Ing. Juan Tuk
Instituto Tecnológico de Costa Rica
Apartado Postal no. 159
Cartago

FRANCE

*FIVES CAIL BABCOCK
7 rue Montalivet
F-75383 Paris Cedex 17

*Jean JUHASZ
Lavernose-Lacasse
F-31410 Noe

*Groupe de Recherche et d'Echanges Technologiques (GRET)
213, rue L. Fayette
F-75010 Paris

Syndicat National des Fabricants de Ciments et Chaux
41 Avenue de Friedland
F-75008 Paris

GERMANY, FEDERAL REPUBLIC OF
INCA Baustofftechnik GmbH
Waffenschmidtstr. 4
D-5000 Köln 71

Keramikindustrieanlagen
W. Strohenger GmbH & Co. Ltd.
D-8524 Neunkirchen am Brand

Mr. Harro Taubmann
Ernst Reuter-Strasse 34
D-7888 Rheinfeldern

GUATEMALA

*CEMAT
Apartado Postal 1160
Guatemala Ciudad

INDIA

*ASTRA
Indian Institute of Science
Mallesinaram
Bangalore 560012

^{1/} Special experience in small-scale lime manufacture is indicated by an asterisk

2. ORGANIZATIONS WHICH PROVIDE CONSULTANCY SERVICES TO THE LIME INDUSTRY^{1/}, continued

INDIA, continued

*Central Building Research Institute (CBRI)
Roorkee
Uttar Pradesh 247667

Dyerslime & Chemicals Private Ltd.
10 Alipur Road
Delhi - 110054

*Lime Manufacturers Association
10 Alipur Road
New Delhi

(Mr. V. Vasudevan, Director)
Khadi and Village Industries Commission
3 Irla Road, Vile Parle (West)
Bombay 400 56

INDONESIA

Ceramic Research and Development Institute (CRDI)
Ministry of Industry
Jalan Jenderal A. Yani 392
Bandung

SWEDEN

Cementa International AB
P.O. Box 30118
S-200 61 Malmö

UNITED KINGDOM

*Intermediate Technology Consultants
Myson House
Railway Terrace
Rugby
Warwickshire CV21 3HT

*Mr. John Spiropoulos
66 Presthope Road
Selly Oak
Birmingham B 29 4NJ

*(Mr. Neville R. Hill)
TERRE
109 High Street
Portsmouth
Hants PO1 2HJ

^{1/} Special experience in small-scale lime manufacture is indicated by an asterisk

2. ORGANIZATIONS WHICH PROVIDE CONSULTANCY SERVICES TO THE LIME
INDUSTRY^{1/}, continued

UNITED STATES OF AMERICA

*Appropriate Technology International
1331 H Street, N.W.
Washington, D.C. 20005

Intertect
P.O. Box 10502
Dallas, Texas 75207

National Lime Association
3601 North Fairfax Drive
Arlington, Virginia 12201

*Volunteers in Technical Assistance (VITA)
1815 N. Lynn Street, Suite 200
Box 12438
Arlington, Virginia 22209

^{1/} Special experience in small-scale lime manufacture is indicated
by an asterisk

3. LIME MANUFACTURER AND DISTRIBUTOR ASSOCIATIONS OR OTHER INDUSTRY REPRESENTATIVES^{2/}

AUSTRALIA

*(Mr. S. Jones)
National Lime Association of Australia
Adelaide Brighton Cement Ltd
Angaston 5353
South Australia

*(Mr. C.T. Maples)
National Lime Association of Australia
David Mitchell Estates Ltd.
P.O. Box 486
Lilydale
Vic 3140

AUSTRIA

*(Mr. Rudolf Friedrich)
Steirische Montanwerke AG
Donawitzer Strasse 39
A-8700 Leoben

BELGIUM

*(Dr. Emile Wouters)
Union des Producteurs Belges de Chaux
(U.C.C.D.)
61 rue du Trone
B-1050 Brussels

BRAZIL

Associação Brasileira dos Produtores de Cal
Rua de Abril, 296, 3º andar. cj. 32
CEP 01044 Sao Paulo - SP.

DENMARK

*(Mr. I. Sehested Hansen)
Kalk-og Teglvaerksforeningen AF 1893
Norre Voldgade 34
Dk-1358 Copenhagen

FINLAND

The Finnish Association of Building Materials Industry
Eteläranta 10
F-00130 Helsinki

*(Mr. Lauri Koivikko)
Ruskealan Marmori Oy
SF-57100 Savonlinna 10

^{2/} Member of the International Lime Association is indicated by an asterisk.

3. LIME MANUFACTURER AND DISTRIBUTOR ASSOCIATIONS OR OTHER INDUSTRY REPRESENTATIVES^{2/}, continued

FRANCE

*(M. J. Darré)
Syndicat National des Fabricants de Ciments et de Chaux
41 Avenue de Friedland
F-75008 Paris

Société des Chaux et Dolomies du Boulonnais SA
26, rue des Cordelières
F-75013 Paris

GERMANY, FEDERAL REPUBLIC OF

*(Dr. Norbert Rogmann)
Bundesverband der Deutschen Kalkindustrie
Postfach 51 05 50
D-5000 Köln 51

Rheinisch-Westfälische Kalkwerke AG
D-5600 Wuppertal 11 - Dornap

INDIA

Lime Manufacturers Association
10 Alipur Road
New Delhi

ITALY

*(Dott. P.C. Balsi)
Associazione dell'Industria Italiana del Cemento,
del Fibro-cemento, della Calce e del Gesso
Via di S. Teresa 23
I-00198 Roma

*Ing. Filippo & Carlo Tassara SpA
Via Galata 37-6
I-16124 Genua

JAPAN

*(Mr. K. Tokoro)
Japan Lime Association
Toranomom Jitsugyo Kaikan
1-20 Toranomom 1-chome
Minato-ku
Tokyo 105

^{2/} Member of the International Lime Association is indicated by an asterisk.

3. LIME MANUFACTURER AND DISTRIBUTOR ASSOCIATIONS OR OTHER INDUSTRY REPRESENTATIVES^{2/}, continued

NETHERLANDS

*(Dr. D.J. Wiersma)
BV Nekami
Nijverheidsstraat 32
Postbus 436
NL-2800 AK Gouda

NIGER

Société Nigérienne de Cimenterie (SONICHAUX)
B.P. 12
Malbaza

POLAND

Union of Cement Lime and Plaster Plants
ul. Nowotki 14
Sosnowiec

RWANDA

PPCT
B.F. 31
Ruhengeri

SPAIN

*(Mr. Jose Noguera)
Derivados Cálcicos SA
Apartado 236
Gerona

*Productos Dolomíticos SA
Fortuny, 51
28010 Madrid

SWEDEN

*The Swedish Lime Association
c/o CEMENTA Mineral
Box 30022
S-200 61 Malmö

SWITZERLAND

Association of Swiss Cement, Lime and Gypsum Manufacturers
Talstrasse 83
CH-8001 Zürich

*(Dr. Konrad Auer)
Kalkfabrik Netstal AG
CH-8754 Netstal Gl

^{2/} Member of the International Lime Association is indicated by an asterisk.

3. LIME MANUFACTURER AND DISTRIBUTOR ASSOCIATIONS OR OTHER INDUSTRY REPRESENTATIVES^{2/}, continued

SYRIA

General Organization for Sugar
P.C. Box 429
Homs
Syria

TOGO

Centre de la Construction et du Logement à Cacavelli
B.P. 1762
Lome

UNITED ARAB EMIRATES (ABU DHABI)

General Industry Corporation
P.O. Box 4499
Abu Dhabi

UNITED KINGDOM

*(Mr. A.S. Anthony)
British Aggregate and Construction Materials Industries
(BACMI)
156 Buckingham Palace Road
London SW1W 9TR

until end of 1986:

*International Lime Association
BACMI
25 Lower Belgrave Street
London SW1W 0LS

from 1987 - 1991:

*International Lime Association
Dr. P. Balsi
Assocemento
Via de S. Teresa 23
I-00198 Rome
Italy

UNITED STATES OF AMERICA

*(Mr. Ken Gutschick)
National Lime Association
3601 North Fairfax Drive
Arlington
Virginia 22201

^{2/} Member of the International Lime Association is indicated by an asterisk.

4. ORGANIZATIONS WHICH CONDUCT RESEARCH AND DEVELOPMENT IN LIME
MANUFACTURE OR USE

ARGENTINA

Instituto Nacional de Tecnología Industrial (INTI)
Avda. General Paz entre Avda. de los Constituyentes y Albarellos
1650 San Martín
Pcia. Buenos Aires

AUSTRALIA

CSIRO
Division of Building Research
Graham Road
P.O. Box 56
Highett
Victoria 3190

AUSTRIA

VOEST - ALPINE AG
Kalkwerk Steyrling
A-4571 Steyrling

United Nations Industrial Development Organization
Vienna International Centre
P.O. Box 300
A-1400 Vienna

BELGIUM

Post Graduate Centre Human Settlements
Kasteel Arenberg
B-3030 Heverlee

BANGLADESH, PEOPLE'S REPUBLIC OF

Housing & Building Research Institute
Darus-Salam
Mirpur
Dhaka-18

BOTSWANA

Southern Rural Development Association (SRDA)
Kanye

CHILE

Centro de Estudios en Tecnología Apropriada (CETAL)
Casilla 197-V
Valparaíso

CZECHOSLOVAKIA

VUSH
Research Institute of Building Materials
Hnevkovskeho str.
617 00 Brno - Komarov

4. ORGANIZATIONS WHICH CONDUCT RESEARCH AND DEVELOPMENT IN LIME
MANUFACTURE OR USE, continued

ECUADOR

Centro Andino de Tecnología Rural - CATER
Casilla 399
Loja

FRANCE

Centre pour Recherche sur l'Industrie des Liants Hydrauliques
(GERILH)
23 rue de Cronstadt
F-75015 Paris

GRET

Groupe de Recherche et d'Echanges Technologiques
213, rue La Fayette
F-75010 Paris

GERMANY, FEDERAL REPUBLIC OF

(Mrs. H. Schreckenbach)
German Appropriate Technology Exchange
Postfach 5180
D-6236 Eschborn 1

Mr. Harro Taubmann
Ernst Reuter-Strasse 34
D-7888 Rheinfeldern

GHANA

Building and Road Research Institute
University of Science and Technology
P.O. Box 40
Kumasi

GUATEMALA

Centro de Investigaciones de Ingeniería
Universidad de San Carlos
Ciudad Universitaria, Zona 12
Guatemala City, Guatemala, C.A.

GUYANA

Institute of Applied Science & Technology (IAST)
Turkeyen Campus
Greater Georgetown

ICELAND

Building Research Institute
Keldnaholt 110
Reykjavik

4. ORGANIZATIONS WHICH CONDUCT RESEARCH AND DEVELOPMENT IN LIME
MANUFACTURE OR USE, continued

INDIA

Dyerslime & Chemicals Private Limited
10 Alipur Road
Delhi 110 054

Ann Phac Consultants Pvt Ltd
C-100 Anand Niketan
New Delhi 110021

Central Building Research Institute (CBRI)
Roorkee
Uttar Pradesh 247667

Centre for Application of Science and Technology to
Rural Areas
Indian Institute of Science
Bangalore - 560012

Civil Engineering Department
University of Roorkee
Roorkee, Uttar Pradesh 247672

(Mr. V. Vasudevan, Director)
Khadi and Village Industries Commission
3 Irla Road, Vile Parle (West)
Bombay 400 56

Lime Manufacturers Association
10 Alipur Road
Delhi

National Buildings Organization
Nirman Bhavan, "G" Wing
Maulana Azad Road
New Delhi 110011

(Dr. W.A. Clemente II, Adviser)
Asian and Pacific Centre for Transfer of Technology
49 Palace Road
P.O. Box 115
Bangalore-560 052

Vigyan Shiksha Kenda
Atarra P.O. 210201
Banda District, Uttar Pradesh

INDONESIA

Ceramic Research and Development Institute (CRDI)
Ministry of Industry
Jalan Jenderal A. Yani 392
Bandung

4. ORGANIZATIONS WHICH CONDUCT RESEARCH AND DEVELOPMENT IN LIME
MANUFACTURE OR USE, continued

INDONESIA, continued

Directorate of Building Research
84 Jalan Tamansari
Bandung

United Nations Regional Housing Centre
84 Jalan Tamansari
Bandung

NETHERLANDS

Centre for International Co-operation and
Appropriate Technology (CICAT)
Stevinweg 1 (Kab. 4.91)
P.O.Box 5048
NL-2600 Ga Delft

NEW ZEALAND

Director
New Zealand Concrete Research Association
Private Bag
Porirua

Director
Building Research Association of New Zealand
Private Bag
Porirua

PAKISTAN

Appropriate Technology Development Organization
P.O. Box 1306
Islamabad

PHILIPPINES

Philippine Center for Appropriate Training and
Technology (PCATT)
Manila Suite
1416 F Felipe Agoncillo St
Ermita
Metro Manila 2801

RWANDA

P P C T
B.P. 31
Ruhengeri

SWAZILAND

Small Enterprise Development Corporation (SEDCO)
P.O. Box 451
Mbabane

4. ORGANIZATIONS WHICH CONDUCT RESEARCH AND DEVELOPMENT IN LIME
MANUFACTURE OR USE, continued

SWEDEN

Cemeta International AB
P.O. Box 30118
S-200 61 Malmö

TANZANIA

Small Industries Development Organization
P.O. Box 2476
Dar-es-Salaam

THAILAND

Asian Institute of Technology
Division of Structural Engineering and Construction
P.O. Box 2754
Bangkok 10501

Siam Technology Co. Ltd.
87 Sukhumvit Road
6th Floor Nai Lert Bldg
Bangkok 10-110

TOGO

Centre de la Construction et du Logement a Cacavelli
B.P. 1762
Lome

UNITED KINGDOM

Building Research Establishment
Overseas Division
Garston, Watford
Herts WD2 7JR

Intermediate Technology Development Group
Myson House
Railway Terrace
Rugby
Warwickshire CV21 3HT

Martin Centre
Department of Architecture
6 Chaucer Road
Cambridge CB2

TERRE

109 High Street
Portsmouth
Hants PO1 2HJ

UNITED STATES OF AMERICA

Appropriate Technology International
1331 H Street, N.W.
Washington D.C. 20005

4. ORGANIZATIONS WHICH CONDUCT RESEARCH AND DEVELOPMENT IN LIME
MANUFACTURE OR USE, continued

UNITED STATES OF AMERICA, continued

Intertect
P.O. Box 10502
Dallas
Texas 75207

Volunteers in Technical Assistance (VITA)
1815 N. Lynn Street, Suite 200
Box 12438
Arlington, Virginia 22209

Iowa State University
Ames Laboratory
USDOE
Ames, Iowa 50011

National Lime Association
3601 North Fairfax Drive
Arlington
Virginia 12201

University of California, Berkeley
Department of Civil Engineering
Berkeley, California 94720

ZAMBIA

National Council for Scientific Research
P.O. Box CH 158
Lusaka

5. PRIVATE AND STATE ORGANIZATIONS RESPONSIBLE FOR BUILDING RESEARCH AND DOCUMENTATION

ALGERIA

National Laboratory for Public Works and Building
LNTB
Routes des 4 Conoas
Algiers

ANGOLA

Laboratory of Engineering of Angola
Caixa Postal 6500
Luanda

ARGENTINA

Research and Information Centre
Bouwcentrum Argentina
Casilla de Correo 157
Suc S Marcin
Buenos Aires

Instituto Nacional de Tecnologia Industria (INTI) -
Centro de Investigacion Documentaria (CID)
L.N. Alem 1067
5º a 7º Piso
1001 Buenos Aires

BANGLADESH, PEOPLE'S REPUBLIC OF

Housing & Building Research Institute
Darus-Salam
Mirpur
Dhaka-18

BOLIVIA

National Scientific & Technical Documentation Centre
Casilla No. 3283
La Paz

BOTSWANA

Ministry of Commerce and Industry
Private Bag 004
Gaborone

BRAZIL

Instituto de Pesquisas Tecnológicas do Estado de
Sao Paulo S.A. (IPT)
Cidade Universitaria
Caixa Postal 7141
01000 Sao Paulo

BULGARIA

Building Research Institute (NISI)
Boulevard Petko Napetov 36
Sofia

5. PRIVATE AND STATE ORGANIZATIONS RESPONSIBLE FOR BUILDING RESEARCH
AND DOCUMENTATION, continued

BURKINA FASO

Bureau des Mines et de la Géologie du Burkina
B.P. 601
Ouagadougou

BURMA

Building Research Laboratory
Kamakyi Road
Thawamma
Rangoon

CAMEROON

Le Ministre du Plan et de l'Aménagement du Territoire
Ministère du Commerce et de l'Industrie
Yaounde

CHILE

Centro de Estudios en Tecnología Apropiada (CETAL)
Casilla 197-V
Valparaíso

CHINA, PEOPLE'S REPUBLIC OF

Technical Information Institute
Academy of Building Research
No. 19 Hsiang Tung Road
Fu-chen Gate
Peking

CONGO, REPUBLIQUE POPULAIRE DU

Direction des Etudes et de la Planification
Ministère de l'Industrie et de l'Artisanat
B.P. 211
Brazzaville

National Laboratory for Research and Public Works
B.P. 752
Brazzaville

CUBA

Centre for Building Research (CIEC)
Apartado 6180
Havana

CZECHOSLOVAKIA

Research Institute for Building (VUVA)
Letenska 3
Mala Strana
Praha

5. PRIVATE AND STATE ORGANIZATIONS RESPONSIBLE FOR BUILDING RESEARCH
AND DOCUMENTATION, continued

EGYPT

General Organization for Housing, Building & Planning Research
Tahreer Street
Dokki
Cairo, A.R.E.
P.O. Box 1770 Cairo

EL SALVADOR

Ministry of Public Works
41 Avenida Norte 221
San Salvador

EQUATORIAL GUINEA

Ministerio de Industria, Comercio y Promoción Empresarial
Malabo

ETHIOPIA

Ministry of Construction
P.O. Box 5303
Addis Ababa

Ministry of Industry
P.O. Box 704
Addis Ababa

GERMANY, FEDERAL REPUBLIC OF

(Mrs. H. Schreckenbach)
German Appropriate Technology Exchange
Postfach 5180
D-6236 Eschborn 1

GREECE

Ministry of Environment, Physical Planning and
Public Works - General Secretariat of Public Works
Public Works Research Center
166 Pireus Street
118 54 Athens

GUATEMALA

Centro de Investigaciones de Ingenieria
Universidad de San Carlos
Ciudad Universitaria, Zona 12
Guatemala City, Guatemala, C.A.

HAITI, REPUBLIC OF

Ministère de l'Economie des Finances et de l'Industrie
Port-au-Prince

HONDURAS

Consejo Superior de Planificación Economía (CONSUPLANE)
Tegucigalpa, D.C.

5. PRIVATE AND STATE ORGANIZATIONS RESPONSIBLE FOR BUILDING RESEARCH AND DOCUMENTATION, continued

HUNGARY

Central Research and Design Institute for Silicate Industry
SZIKKTI
Pf. 112
H-1300 Budapest

Hungarian Institute for Building Science
David Ferenc utca 6
1502 Budapest
Postafiok 71

ICELAND

Building Research Institute
Keldnaholt 110
Reykjavik

INDIA

Central Building Research Institute
(CBRI)
Roorkee
Uttar Pradesh 247667
Dehradun 234 8006

INDONESIA

Ceramic Research and Development Institute (CRDI)
Ministry of Industry
Jalan Jenderal A. Yani 392
Bandung

IRAN

United Nations Building and Housing Research Centre
P.O. Box 1555
Tehran

IRAQ

Building Research Centre
P.O. Box 2136
Jadriya
Baghdad

ISRAEL

Building Research Station
Israel Institute of Technology
Technion City
Haifa

JAMAICA

Mines & Quarries Division
Ministry of Mining, Energy and Tourism
P.O. Box 141
Hope, Kingston 6

5. PRIVATE AND STATE ORGANIZATIONS RESPONSIBLE FOR BUILDING RESEARCH
AND DOCUMENTATION, continued

JAPAN

Building Research Institute
Ministry of Construction
1, Tatehara, Oho-machi, Tsukuba-gun
Ibaraki-prefecture

JORDAN

Building Materials Research Centre
Ministry of Public Works
Amman

KENYA

Housing Research and Development Unit (HRDU)
University of Nairobi
P.O. Box 30179
Nairobi

Ministry of Commerce and Industry
P.O. Box 30430
Nairobi

KOREA, REPUBLIC OF

National Construction Research Institute
Ministry of Construction
IPO 2159
Seoul

KUWAIT

Government Research Station
P.O. Box Safat 864
Kuwait City

LIBERIA

Department of Public Works and Utilities
Lynch Street
Monrovia

LIBYA

Secretariat of the General People's Committee for
Planning and Economy
P.O. Box 600
Tripoli
S.P.L.A.J.

MADAGASCAR

Ministère de l'Industrie, d'Energie et des Mines
Antananarivo

5. PRIVATE AND STATE ORGANIZATIONS RESPONSIBLE FOR BUILDING RESEARCH
AND DOCUMENTATION, continued

MALAYSIA

Standards and Industrial Research Institute of Malaysia (SIRIM)
Lot 10810, Phase 3
P.O. Box 35
40700 Shah Alam

MALI

Lamine Conlibali
Conseiller Technique
Ministère du Développement Industriel
Bamako

MALAWI

Ministry of Trade, Industry and Tourism
P.O. Box 30366
Lilongwe

MEXICO

(Ing. Salvador)
Asociación Nacional de Fabricantes de Cal
Lago Mayor No. 210 Col. Anáhuac
C.P. 11320 México

Information and Documentation Centre
Consejo Nacional de Ciencia y Tecnología
Insurgentes Sur 1677
Mexico 20 DF

MOROCCO

PWD Testing Laboratory
25 rue d'Azilal
Casablanca

MOZAMBIQUE

Laboratório de Engenharia de Mocambique
Avenida de Mocambique, km 1,5
Maputo CP 1918

NEW ZEALAND

Ministry of Energy, Mines Division
Private Bag
Wellington

Department of Scientific and Industrial Research (DSIR)
Head Office
Charles Fergusson Building
Bowen Street
Wellington

5. PRIVATE AND STATE ORGANIZATIONS RESPONSIBLE FOR BUILDING RESEARCH
AND DOCUMENTATION, continued

NIGER

(M. Labo Kada Aboubacar)
Association de Cimentiers d'Afrique (CIMAFRIQUE)
B.P. 12.375
Niamey

PANAMA

Dirección de Industrias
(Ministerio de Comercio e Industrias)
Edificio La Lotería
Apartado Postal 9658
Panamá 4

PAKISTAN

Building Research Station
Council for Works and Housing Research
F/40 Site
Hub River Road
Karachi 28

PARAGUAY

Secretaría Técnica de Planificación de la Presidencia de la República
Iturbe 175
Asunción

POLAND

Technical Building Institute (ITB)
Ul Filtrowa 1
Warszaw

ROMANIA

Research and Design Institute for Binders and
Asbestos Cement Industry (ICPILA)
Bd. Preciziei no.6
Sector 6
Bucharest 16

SAUDI ARABIA

Ministry of Industry and Electricity
Riyadh

SENEGAL

Ministère du Développement Industriel et de l'Artisanat
Dakar

SPAIN

Building and Cement Research Institute
Eduard Torroja
Apartado 19.002
Costillares
Chamartin
Madrid 33

5. PRIVATE AND STATE ORGANIZATIONS RESPONSIBLE FOR BUILDING RESEARCH
AND DOCUMENTATION, continued

SRI LANKA

Institute of Scientific and Industrial Research
P.O. Box 787
Colombo

SUDAN

Building and Road Research Institute
University of Khartoum
P.O. Box 321
Khartoum

SWEDEN

National Swedish Institute for Building Research (SIB)
Valhallavägen 191
Box 27163
S-102 52 Stockholm

SYRIAN ARAB REPUBLIC

Ministry of Petroleum and Mineral Resources
Damascus

United Nations Centre for Housing and Construction
P.O. Box 2317
Damascus

TANZANIA

National Housing and Building Research Unit
P.O. Box 1964
Dar es Salaam

Small Industries Development Organization
P.O. Box 2476
Dar-es-Salaam

THAILAND

Department of Science
Ministry of Industry
Bangkok

TRINIDAD

The Caribbean Industrial Research Institute (CARIRI)
University Post Office
St. Augustine
Trinidad

TURKEY

TÜBITAK Building Research Institute
Atatürk Bulvarı 221
06100 Kavaklıdere
Ankara

5. PRIVATE AND STATE ORGANIZATIONS RESPONSIBLE FOR BUILDING RESEARCH
AND DOCUMENTATION, continued

TURKEY, continued

(Mr. Faruk Yaqiz, Head of Planning Department)
Turkish Cement Manufacturers Association
Ankara

UNITED KINGDOM

Building Research Establishment
Overseas Division
Garston, Watford
Herts WD2 7JR

URUGUAY

Dirección Nacional de Industrias
Sarandi 690 D 2o. E.P.
Montevideo

USSR

Gosstroi USSR
Prospekt Marksa 43
Moscow K-25

VENEZUELA

Information and Documentation Centre
Oficina de Investigacion y Difusion
Banco Obrero
Esq Cruz Verde
Caracas

YEMEN ARAB REPUBLIC

Ministry of Economy and Industry
P.O. Box 1804
Sanaa

YUGOSLAVIA

Yugoslav Building Centre
Bulevar Revolucije 84
11000 Belgrade

ZIMBABWE

Ministry of Industry and Technology
P.O. Box 8434
Causeway
Harare

BIBLIOGRAPHY OF SELECTED DOCUMENTS DEALING WITH LIME
AND ITS USES

INTRODUCTION

This bibliography may be used in conjunction with the UNIDO report "Lime in industrial development: A UNIDO guide to its uses and manufacture in developing countries" (UNIDO/IS.555). It is a selection of works which provides information on various aspects of lime manufacture and use, and emphasizes in particular the information requirements of the sector in the developing countries.

Works have been grouped into four categories:

Books.

Articles and proceedings.

Documents describing official and unofficial standards and specifications for lime and lime producing equipment.

Periodicals.

Note that full addresses of many of the organizations which have privately issued books and reports cited in the bibliography can be found in the accompanying UNIDO Directory of organizations concerned with lime. Those interested in obtaining copies of such reports and proceedings will need to contact the sponsoring organizations directly, since normally booksellers do not handle privately published documents.

1. BOOKS

- Aguilar, M.H. Estabilización de suelos con tierras de diatomeas y cal hidrata para uso en construcción de viviendas económicas. Guatemala City: Universidad de San Carlos, 1980.
- Arrendondo, F. Estudio de materiales, cales. Madrid: Instituto Eduardo Torroja, 1976.
- Azbe, V.J., The theory and practice of lime manufacture. (Place of publication not known). Azbe Engineering Corp., 1946. (Collection of articles taken from Rock Products)
- Bawa, N.S. and Bartel-Kornaka, E.T. Production and use of building lime in Ghana. Note No 17. Kumasi, Ghana: Building Research Institute, 1964.
- Bessey, G.E. Production and use of lime in the developing countries. United Kingdom: Building Research Establishment, 1975. (Short work on manufacture and uses)
- Bessey, G.E. The history and present day development of the autoclaved calcium silicate building products industries. London: Society for Chemical Industry, 1966.
- Boynton, R.S. Chemistry and technology of lime and limestone, 2nd ed. New York: John Wiley, 1980. (Major textbook, relates mainly to U.S.)
- Boynton, R.S. and Gutschick, K.A. Building lime, its properties, uses and manufacture. Workshop on organizational and technical measures for the development of building materials. Moscow, 25 September - 19 October 1968. (ID/WG.20/1). Vienna: UNIDO, 1968.
- Boynton, R.S. and Lewis, C.J. Acid neutralization with lime. Bulletin 216. Washington: National Lime Association, 1976.
- British Quarrying and Slag Federation. Lime in building. (Place of publication not known) British Quarrying and Slag Federation, 1974.
- Bundesverband der deutschen Kalkindustrie. From limestone to lime. Wiesbaden, Federal Republic of Germany: Bundesverband der deutschen Kalkindustrie, Bauverlag GmbH. (Date of publication not known).
- Ceramic Research and Development Institute. Appropriate vertical shaft lime kilns in Indonesia. Bandung: Ceramic Research and Development Institute, 1983.
- CLAIRA. CLAIRA looks at lime kilns. Welwyn, UK: Chalk, Lime and Allied Industries Research Association. (Date of publication not known).
- Cowper, A.D. Lime and lime mortars. Building Research Special Report no 9. London: H.M.S.O., 1927.

- Danson, P.A. and Koppl, O. La chaux au Togo: possibilités de production artisanale. Togo: Ministère de Travaux Publics, République Togolaise, 1971.
- DEMAG AG. Induced-draught shaft kilns for burning and sintering. Duisburg, Federal Republic of Germany: DEMAG AG. (Date of publication not known).
- Directorate of Building Research. The Indonesian prototype lime kiln at Mranggen, Central Java. Technical Report No 18. Bandung, Indonesia: Directorate of Building Research. (Date of publication not known).
- Eckel, E.C. Cement, limes and plasters. New York: John Wiley, 1922.
- Ellis, C.I. Village-scale production of lime for road construction in Ghana. Supplementary Report No. 42 UC. Crowthorne, Berkshire, UK: Transport and Road Research Laboratory, 1974.
- Fox, T.H. Lime production in Honduras. Case Study 21. Conference on Effective Use of Appropriate Technologies. London: Intermediate Technology Development Group, 1977.
- GRET. La chaux: sa production et son utilisation dans l'habitat. Paris: GRET, 1985.
(Illustrated manual for producers in developing countries)
- Halcrow Caribbean Ltd. Lime-burning investigations in Belize, Central America. (Place of publication not known). Halcrow Caribbean Ltd. (Date of publication not known).
- Hill, N.R. Pit Kilns for lime production. Portsmouth, UK: TERRE, 1983.
- Hosking, J.S. Limestone and lime in the Territory of Papua and New Guinea. Technical Paper No 21. Melbourne: Division of Building Research, CSIRO, 1967.
- IBAG. Lime plants: Nucleus for industrialisation in developing countries. K720. Neustadt, Federal Republic of Germany: IBAG, Vertrieb GmbH. (Date of publication not known)
- Kelley, C.M. A long range durability study of lime-stabilized bases. Bulletin 328. Washington: National Lime Association, 1977.
- Khadi and Village Industries Commission. Lime kiln designs. Bombay, India: Khadi and Village Industries Commission. (Date of publication unknown).
- Knibbs, N.V.S. Lime and magnesia. London: Benn, 1924.
(Old textbook)

- Knibbs, N.V.S. and Gee, B.J. Lime and limestone, Part I.
Toronto: Hall, 1952.
- León, E. Morteros de cal con materiales del departamaneto de Guatemala.
Thesis. Guatemala City: Universidad de San Carlos, Guatemala,
1967.
- Lester, D. Quarrying and rockbreaking London: Intermediate Technology
Publications, 1981.
(Account of small-scale quarrying methods)
- Lime Manufacturers Association. Lime, manufacture and uses.
New Delhi: Indian Lime Manufacturers Association, 1972.
(Papers presented at a symposium on the Indian lime industry)
- Mason, S. Shaft lime kiln. Boroko, Papua New Guinea: Building Research
Station, 1974.
- McDowell, C. Stabilization of soils with lime. Bulletin 231.
Washington: US Highway Research Board, 1959.
- National Lime Association. Mortar technical notes. Washington:
National Lime Association, 1964.
- National Lime Association. Chemical lime facts. Washington:
National Lime Association, 1965.
- National Lime Association. Lime stabilization construction manual.
Bulletin 326. Washington: National Lime Association, 1976.
- National Lime Association. 100 questions and answers on liming land,
6th ed. Washington: National Lime Association, 1976.
- National Lime Association. Whitewash and cold water paints.
Washington: National Lime Association, 1976.
- Parsons, W. Chemical treatment of sewage and trade wastes.
Washington: National Lime Association, 1965.
- Reihl, M. Water supply and treatment, 11th ed.
Washington: National Lime Association, 1976.
- Rudolfs, W. Principles of sewage treatment. 4th ed.
Was..ington: National Lime Association, 1976.
- Saavedra, F. Cales de Nicaragua. Thesis. Managua:
Universidad Nacional Autonoma de Nicaragua, 1964.
- Sauni, J.T.M. and Sakula, J.H. Oldonyo Sambu pozzolime industry:
History, operation and development. Tanzania (city not known):
Small Industry Development Organization, 1978.

- Schiele, E. and Behrens, Kalk. (Place of publication not known)
Verlag Stahlieren, 1922.
- Schwartzkopf, F. Lime burning technology. (Place of publication not known)
Kennedy Van Saun Corp., 1974.
- Searle, A.B. Limestone and its products. London: Benn, 1935.
(Classic text, many types of kilns described)
- Sobek, F. Manufacturing guide to the lime industry. (UNIDO/ISIC/ING.3)
Vienna: UNIDO, 1975.
- Spence, R.J.S. Alternative Cements in India. London:
Intermediate Technology Development Group, 1976.
- Spence, R.J.S. (ed.). Lime and alternative cements. London:
Intermediate Technology Publications, 1979.
(Symposium which includes a discussion of limeburning)
- Spence, R.J.S. (ed.). Small-scale production of cementitious materials.
London: Intermediate Technology Publications, 1979.
(A discussion of lime and lime-based binders)
- Spiropoulos, J. Small-scale production of lime for building in developing countries - a guide to project design and implementation.
Eschborn: German Appropriate Technology Exchange, 1985.
- Stowell, F.P. Limestone as a raw material in industry. Oxford:
Oxford University Press, 1963.
(Textbook)
- Syndicat National des Fabricants de Cements et de Chaux. La chaux.
Paris: Syndicat National des Fabricants de Cements et de Chaux. (Date of publication not known).
- Tuk, B. Pacheco, Francisco. Utilización de Cal como Agente Cementante.
Costa Rica: Instituto Tecnológico de Costa Rica, 1982.
- Voss, W. Exterior Masonry Construction. Washington:
National Lime Association, 1960.
- Wingate, M. Small scale limeburning. London: Intermediate Technology Publications, 1985.
(A complete manual for small-scale lime production)
- Zvare, T.I. Lime. Dar-es-Salaam: National Building Research Unit,
(Date of publication not known).

2. ARTICLES AND PROCEEDINGS

Andersson, L.

"Lime stabilization of ore tailings"
Proc. 4th International Lime Congress, Hershey, Pa., 1978

Andersson, L.

"Lime treatment of sewage sludge"
Proc. 4th International Lime Congress, Hershey, Pa., 1978

Andersson, L.

"New lime column stabilization method"
Proc. 4th International Lime Congress, Hershey, Pa., 1978

Anon.

"Honduran lime kiln test fired" in
VITA NEWS, Vol.5, 3, Winter 1976

Azbe, V.

"Fuel oil and its application to the combustion system" in
Rock Products, June 1954

Beckenbach, K.

"Lime burning in angular kiln" in
Zement, Kalk, Gips, pp. 206-209, May 1970

Berg, W. et al

"State of development of granular bed filters" in
Zement, Kalk, Gips, pp. 4-7, March 1977

Bernhoff, R.

"The role of lime and dolomite in the treatment of municipal
wastewater"
Proc. 3rd International Lime Congress, Berlin, 1974

Bessey, G.E.

"Hydrated calcium silicate products other than hydraulic cements" in
The Chemistry of Cements, ed. H.F.W. Taylor, Vol.2
London: Academic Press, 1964

Bonnot, J.

"Utilisation de la chaux dans les assises de chaussées en France"
Proc. 4th International Lime Congress, Hershey, Pa, 1978

Bonvicini, U.

"Use of calcined dolomite in the steel industry" (French)
Proc. 4th International Lime Congress, Paris, 1982

Boynton, R.S.

"European lime manufacture" in
Pit and Quarry, May 1960

- Boynton, R.S.
"Lime" in
Encyclopedia of Chemical Technology, Vol. 12, pp.414-460
Interscience, 1967
- Boynton, R.S. and Gutschick, K.A.
"Lime" in
Industrial Minerals and Rocks, AIME
York, Pa.: Maple Press, 1960
- Cassidy, J.E.
"Energy consumption in the lime burning industry - a review"
Proc. 5th International Lime Congress, Paris, 1982
- Choue, K.
"Noise abatement in the lime industry"
Proc. 4th International Lime Congress, Hershey, Pa, 1978
- Cohen, S.
"Development of the flash calciner for lime processing"
Proc. 4th International Lime Congress, Hershey, Pa, 1978
- Dave, N.G. and Masood, I.
"Investigations on magnesian limes" in
Lime: Manufacture and Uses
Delhi: Lime Manufacturers Association of India, 1972
- Dave, N.G. and Masood, I.
"Studies on existing lime kilns in India" in
Lime: Manufacture and Uses
Delhi: Lime Manufacturers Association of India, 1972
- Dave, N.G., Mehrotra, S.P. and Khalid, M.
"Hydrated lime, production and properties" in
Lime: Manufacture and Uses
Delhi: Lime Manufacturers Association of India, 1972
- Dubois, J.
"Smoke desulphurization of power stations - a review" (French)
Proc. 5th International Lime Congress, Paris, 1982
- Eeckhoudt, D.
"Documents - fours a chaux en Tunisie" (French) in
Environment Africain, Vol.3, Dakar, 1979
- Ellis, C.I.
"Small-scale lime manufacture in Ghana" in
Lime and Alternative Cements
Intermediate Technology Development Group, London, 1975
- Flachsenberg, P.
"German lime kiln development meet quality demands" in
Rock Products, July 1970

- Flachsenberg, P.
"Evolution of lime kiln efficiencies"
Proc. 3rd International Lime Congress, Berlin, 1974
- Fewster, P.R.
"Lime production at Swaneng Hill School, Botswana" in
Lime and Alternative Cements
Intermediate Technology Development Group, 1975
- Frank, G.
"Lime in sewage purification" (German)
Proc. 4th International Lime Congress, Hershey, Pa, 1978
- Giannini, F.
"Lime use in road construction" (French)
Proc. 5th International Lime Congress, Paris, 1982
- Grauer, V. and Bartu, F.
"Plant for burning fine-grained limestone" in
Zement, Kalk, Gips, March 1972
- Hannam, D.W.
"Lime: Sand mortars, their place in modern construction for
bricklaying and plastering and the development of retarded
cement:lime:sand mortars"
Proc. 5th International Lime Congress, Paris, 1982
- Harley, P.W.
"Lime stabilization of building home sites"
Proc. 4th International Lime Congress, Hershey, Pa, 1978
- Heising, A.
"Dry and wet dust collection" in
Zement, Kalk, Gips, January 1977
- Herod, B.
"The calcimatic, a new concept in lime burning" in
Pit and Quarry, November 1963
- Kimberley, I.E.
"Oil-firing sparks vertical kiln comeback" in
Rock Products, July 1973
- Klarup, O.
"Preheaters for rotary lime kilns"
Proc. 5th International Lime Congress, Paris, 1982
- Kowhanowski, F.
"Grate kiln systems for lime production" in
Pit and Quarry, May 1963
- Lewis, C.J.
"Lime and limestone employed in new gas scrubbing concept" in
Pit and Quarry, July 1963

- Millet, J., Fournier, A., Sierra, R.
"Role des chaux industrielles dans leurs emplois avec les matériaux à caractère pozzolanique" in
Bull. Liaison Labo Ponts et Chaussées, 83, May-June, 1976
- Okumura, T. and Terashi, M.
"Deep lime-mixing method of stabilization for marine clays"
Proc. 5th Asian Regional Conf. Soil Mechanics, 1975
- Opitz, D.
"Possibilities in energy reduction in lime industry"
Proc. 4th International Lime Congress, Hershey, Pa, 1978
- Oppermann, B.
"Water and sludge treatment with lime" (German)
Proc. 5th International Lime Congress, Paris, 1982
- Phillips, R.H.
"The production of high quality calcimatic lime" in
Cement, Lime and Gravel, pp.197-200, August 1970
- Priestley, R.
"Vertical kiln advantages" in
Chemical Engineering, Vol.69, p.330, November 1962
- Richard, Y.
"Prospects for lime utilization in water treatment" (French)
Proc. 4th International Lime Congress, Hershey, Pa, 1978
- Ruch, H.
"Possibilities and prospects of fuel supply in the lime industry" (German)
Proc. 5th International Lime Congress, Paris, 1982
- Spence, R.J.S.
"Lime and surkhi manufacture in India" in
Lime and Alternative Cements
Intermediate Technology Publications, 1979
- Tadsen, V.B.
"Dolomitic lime fluxing"
Proc. 4th International Lime Congress, Hershey, Pa, 1978
- Zuidefeld, P.L. and Van den Berg, P.J.
"Design of lime shaft kilns" in
Chemical Engineering Science, Vol. 26,875-883, 1975

**3. DOCUMENTS DESCRIBING OFFICIAL AND UNOFFICIAL STANDARDS
AND SPECIFICATIONS FOR LIME AND LIME PRODUCING EQUIPMENT**

American Society for Testing and Materials (ASTM)
Standard specifications for normal finishing hydrated lime, C6-49
ASTM, Philadelphia, 1961

American Society for Testing and Materials
Standard specifications for hydraulic hydrated lime for structural
purposes, C141-61
ASTM, Philadelphia, 1961

American Society for Testing and Materials
Standard specifications for special finishing hydrated lime, C206-49
ASTM, Philadelphia, 1961

American Society for Testing and Materials
Standard specifications for hydrated lime for masonry purposes, C207-49
ASTM, Philadelphia, 1961

American Society for Testing and Materials
Standard specifications for quicklime and hydrated lime for water
treatment, C53-63
ASTM, Philadelphia, 1963

American Society for Testing and Materials
Standard methods of chemical analysis of limestone, quicklime and
hydrated lime, C25-67
ASTM, Philadelphia, 1967

American Society for Testing and Materials
Limes for Building Purposes, C6-49
ASTM, Philadelphia, 1968

American Society for Testing and Materials
Lime and sand-lime products, C415-72
ASTM, Philadelphia

American Water Work Association
Standard for quicklime and hydrated lime, Bulletin B 202-77
AWWA, Denver, USA, 1977

British Standards Institution
Specification for ready-mixed lime: sand for mortar, BS 4721:1971
BSI, London, 1971

British Standards Institution
Building Limes, BS 890:1972
BSI, London, 1972

Indian Standards Institution
Code of practice for manufacturing lime in vertical mixed feed type
kilns, IS 1861-1961
ISI, New Delhi, 1961

Indian Standards Institution

**Code of practice for design and installation of lime kilns,
IS 1849-1967**

ISI, New Delhi, 1967

Indian Standards Institution

Building lime, IS 712-1973

ISI, New Delhi, 1973

Indian Standards Institution

Methods of tests for building limes, IS 6932-1973 (Parts I-X)

ISI, New Delhi, 1973

Indian Standards Institution

Method of field testing of building lime, IS 1624-1974

ISI, New Delhi, 1974

Indian Standards Institution

**Code of practice for field slaking of building lime and preparation of
putty, IS 1635-1975**

ISI, New Delhi, 1975

National Lime Association

Specification for building lime, Bulletin 322

NLA, 1966

West German Standards Board

Lime in building, DIN 1060

DIN (Deutsches Institut für Normung), Berlin, 1967

4. PERIODICALS

Appropriate Technology (Quarterly)
Intermediate Technology Publications
London
UNITED KINGDOM

Indian Journal of Technology
New Delhi
INDIA

Journal of Applied Chemistry
London
UNITED KINGDOM

Minerals Yearbook (Annually)
US Bureau of Mines
Washington D.C.
USA

Pit and Quarry (Monthly)
Chicago, Illinois
USA

Pit and Quarry Handbook (Annual)
Chicago, Illinois
USA

Revue des Matériaux de Construction
Paris
FRANCE

Rock Products (Monthly)
Chicago, Illinois
USA

Zement-Kalk-Gips (Monthly)
Wiesbaden
GERMANY, FEDERAL REPUBLIC OF

SOMMAIRE

Cette étude complète le document de l'ONUDI "La chaux dans le développement industriel: UNIDO guide pour son usage et production dans les pays en développement" et elle est publiée comme tome II de ce document. Sa première partie contient un annuaire des organisations engagées dans l'industrie de la chaux, avec une liste partielle des fournisseurs d'équipement et des services d'étude pour l'industrie de la chaux ainsi que des organisations s'occupant de la recherche et de la dissémination des informations sur la production, utilisation et commerce de la chaux. La deuxième partie contient une bibliographie énumérant une sélection de publications sur les aspects divers de la production et utilisation de la chaux.

EXTRACTO

Este documento complementa el informe de la ONUDI bajo el título de "Cal en el desarrollo industrial: una guía de la ONUDI para su uso y producción en países en vías de desarrollo", y se publica como volumen II del dicho informe. La primera parte contiene una guía de organizaciones relacionadas con la industria de la cal e incluye una lista parcial de proveedores de equipo y servicios de consultoría para la industria productora de cal además de organizaciones que se ocupan en investigación y en diseminar información sobre la producción, uso y comercialización de la cal. La segunda parte contiene una bibliografía que consiste de una selección de publicaciones sobre varios aspectos de la fabricación y uso de la cal.

For the guidance of our publications programme in order to assist in our publication activities, we would appreciate your completing the questionnaire below and returning it to UNIDO, Studies and Research, D-2119, P.O. Box 300, A-1400 Vienna, Austria

Q U E S T I O N N A I R E

Time in industrial development: A directory of organizations and a bibliography

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- (1) Were the data contained in the study useful?
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