



TOGETHER
for a sustainable future

OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



TOGETHER
for a sustainable future

DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

We regret that some of the pages of this manuscript
by the author have not been submitted to the printer
and it is therefore not possible to publish the
work in its present form. The author is to be
congratulated for his valuable contribution to the



08005



United Nations Industrial Development Organization

Distr.
LIMITED

ID/WG.276/2
13 April 1978

ENGLISH

Consultations on the Iron and Steel Industry -
Expert Group on Training Problems
Vienna, Austria, 24 - 26 April 1978

NOTE ON IN-PLANT GROUP TRAINING PROGRAMMES FOR
ENGINEERS AND TECHNICIANS IN THE IRON AND STEEL INDUSTRY
ARRANGED BY UNIDO IN USSR IN 1977*

Prepared by
UNIDO Secretariat

* This document has been reproduced without formal editing.

id.78-1992

I. Training in Zaporozhye

The programme is designed to assist participants from developing countries in bridging the gap between the fundamental knowledge gained at the University and its application in industry, as well as to provide them with new skills and practical experience.

It was UNIDO's first in-plant group training programme, originally started by CID in 1965 as a five-month programme. There have been 15 such programmes between 1965 and 1977 and a total of 473 participants from 41 countries has been trained.

The programme consists of theoretical and practical in-plant training together with study visits and evaluation, and covers the major specializations of sintering, blast furnaces, steel making, hot rolling mill, section rolling mill, foundry, mechanical engineering, instrumentation and automation, coking and refractory maintenance.

Based on experience, the programme was divided in 1976 into two distinct programmes of 5 and 3 months. The 5 months programme is for relatively inexperienced engineers and is of a general nature. The 3 months programme is for engineers with at least 3 years experience and provides more specialized training in accordance with the individual needs of the participants.

Forty participants from 17 developing countries participated in the two programmes in 1977.

II. Training in Cherepovets

As a result of a request received from the Government of Sri Lanka to train key personnel for the second phase of their iron and steel plant which was under construction, a special programme was organized for 21 participants at the Cherepovets Iron and Steel Works for a duration of 5 months.

The participants including three groups of production, mechanical and electrical engineers followed a short introductory common programme on the iron and steel industry. This was followed by daily separate intensive theoretical and practical training given to the groups in the different sections of electric arc furnaces and concasting, measuring and control instruments, quality control and metallurgical research.

NOTE ON FELLOWSHIP TRAINING IN 1977 ORGANISED BY THE UNIDO METALLURGICAL INDUSTRIES SECTION IN THE IRON AND STEEL INDUSTRY

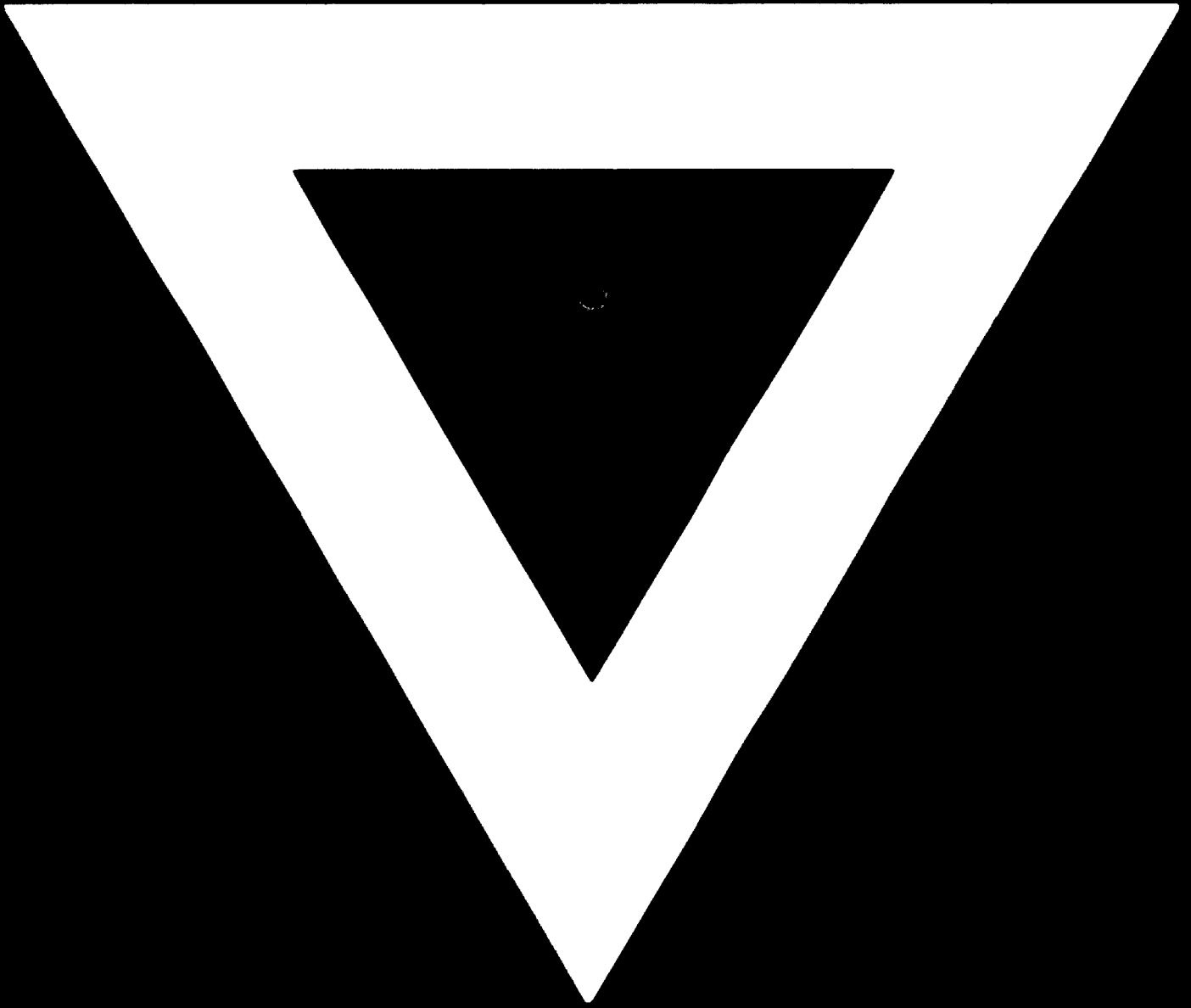
NUMBER OF FELLOWS	NATIONALITY	FIELD OF TRAINING	COUNTRY	MAN-HOURS OF TRAINING
22	EGYPT	All in various fields of plant maintenance in iron and steel (introduction of modern managed maintenance systems at Helwan iron and steel plant)	USA AND CANADA	82.4
9	TURKEY	Optimization and control of blast furnaces; mechanical forming of metals; investment casting; X-ray spectroscopy; direct reduction of Fe ores; development of high-strength steels; quality control, and data processing; agglomeration of Fe ores.	FRG, SWEDEN, UK, USA AND YUGOSLAVIA	18.8
2	PAKISTAN	Iron and steel foundry; iron and steel documentation.	UK	12.0

NOTE ON FELLOWSHIP TRAINING IN 1977 ORGANISED BY THE UNITED METALLURGICAL INDUSTRIES SECTION OF THE IRON AND STEEL INDUSTRY
(follows)

NUMBER OF FELLOWS	NATIONALITY	FIELD OF TRAINING	COUNTRY	MAN-MONTHS OF TRAINING
1	BRAZIL	Standardization, quality control related to iron and steel	FRANCE, SPAIN SWITZERLAND	2.0
1	YUGOSLAVIA	Metallographic research - alloy steels	FRG	1.0
1	EGYPT	Plastic Working of ferrous metals	UK	1.2
Total	34			117.4



C-665



78.11.06