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FINAL REPORT FOR UNIDO

Project No: DP/PAK/86/008

Plastics Technology Centre

Karachi, PAKISTAN

Contract No: 92/168

**SCHOOL OF POLYMER TECHNOLOGY
UNIVERSITY OF NORTH LONDON**

UNIDO REPORT, PTC

ABSTRACT

This report covers the period June 1993 to February 1995 for a UNIDO contract requiring the School of Polymer Technology at the University of North London, to help the Plastics Technology Centre, Karachi to develop a full-time Certificate course in Polymer Technology to train young people for a career as technologists in the Pakistan plastics industry. The report covers the work carried out comprising visits, work on course development and planning and the work undertaken to validate the Certificate course. The Certificate course will be followed by a second year of full-time study leading to the award of a Diploma of the University of North London in Polymer Technology.

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INTRODUCTION

This project was originated by the United Nations Industrial Development Organisation (UNIDO) in order to provide the Plastics Technology Centre (PTC), Karachi, Pakistan with a sister institution in a developed western country, the sister institution would provide technical know-how, support and assistance when required. The School of Polymer Technology (SPT), at the University of North London accepted the role of sister institution and has been contracted to support the development of the Plastics Technology Centre. The School of Polymer Technology has provided all the services included in the contract and been instrumental in the establishing PTC as an important national institute, providing education and training courses in plastics technology in addition to consultancy support for the Pakistan plastics industry.

BACKGROUND INFORMATION

This project is part of a major development project by UNIDO to assist the development and growth of the Pakistan plastics industry. The project started with the building of the Plastics Technology Centre (PTC) at Karachi; this centre has subsequently been equipped with polymer processing and testing equipment. During this time the School of Polymer Technology has provided support for PTC in several ways:

- a. Training the PTC technical staff in both technical aspects and also as trainers for the plastics technology courses offered by PTC, these courses range from short one week intensive courses to the full-time Certificate and Diploma courses, each taking one year.

- b. Up-grading the scope and substantive quality of PTC's services to industry, and specifically when the Centre gives assistance in investigational work for industry.
- c. Improving research and development on the chemical and physical properties of plastics materials, and the processing of these materials.
- d. Testing of plastics materials/products for ageing/weathering properties and establishing appropriate performance standards.
- e. Assisting with the planning and development of a Certificate and a Diploma courses in Polymer Technology. These courses being offered to train young people for careers in the Pakistan plastics industry. This will help to meet the predicted demand for qualified people as the Pakistan plastics industry expands and production increases.
- f. The validating of the Certificate course as an award of the University of North London.
- g. The Diploma course is currently progressing through the University's validating procedures.

This work has been achieved through a series of contracts undertaken by the School of Polymer Technology. This report refers to the last contract (contract reference 92/78/VK) which specified the following objectives to be achieved.

WORK PLAN OBJECTIVES

1. Meeting of parties in Karachi and London.
2. To work with PTC to develop a new Certificate course in Polymer Technology to be run at PTC.
3. To initiate the development of a follow-up higher level course (a Diploma course). This second course will enable successful students to enter directly into the second year of the B.Eng Polymer Engineering course in the School of Polymer Technology at the University of North London, which is accredited for C.Eng by the Engineering Council.
4. To provide additional support for the PTC through the periodic visits of SPT staff as part of the validation and monitoring procedures of the Certificate and Diploma courses.
5. To refine details of a scheme to provide consultancy, test facilities and advice to the PTC and its clients on a self-funding basis.

WORK CARRIED OUT

Visits of Staff

In June 1993 Mr. Ahsan Siddiqi the General Manager of PTC visited the School of Polymer Technology, in London, to discuss the implementation of the work plan. Discussions took place about the planning and development of the course together with the work and procedures required for the validation of the course. Detailed discussions took place on the syllabuses and the most suitable teaching and learning strategies to be implemented in Karachi to ensure the effective delivery of the course. Also during the visit Mr. Siddiqi was able to see and discuss with staff methods of teaching and learning strategies used in the School of Polymer Technology.

This visit was followed, in October 1993, by a visit by Dr. Michael O'Brien to Karachi. This visit was part of the validation procedures. Dr. O'Brien used the visit to confirm that the resources were appropriate for the course, both in terms of equipment, library and computing facilities; and the staff teaching the course. The visit was also used to discuss, and for Dr. O'Brien to advise on, the proposed running of the course. Discussions took place with the General Manager of PTC, Mr. Farouqi, who will have direct responsibility for the running of the course, and other members of staff associated with the proposed course.

In November 1993 the formal validation of the course took place at the University of North London. Mr. Ahsan Siddiqi and Mr. Naveed Ahmed, General Manager - Federal Chemical & Ceramics Corporation (FCCCL) came to London to attend the validation meeting; formal approval was given for the course to start. Their presence enabled any queries raised by the panel to be answered effectively at the meeting. The course was successfully validated and confirmed as leading to the qualification of a Certificate of the University of North London.

The validation visit also provided Mr. Siddiqi's with the opportunity to attend the International Plastics Exhibition at Birmingham. There he was able to meet polymer processing machinery manufacturers and view the state of the art equipment.

Once the course had completed the full validation procedures of the University of North London, PTC sought approval from the Pakistan Government for the course. Official Government recognition of the course was essential if the course was to be recognised as a valuable qualification by the Pakistan public. The Polymer School assisted with the application for Government approval and the subsequent marketing of the course.

In October 1994, Dr. M. O'Brien visited the Plastics Technology Centre in Karachi to help with the start of the course. Dr. O'Brien gave some lectures on the course and gave considerable time to helping with the organisation and preparation of the course. Mr. John Goff was also at the PTC during this time and he also helped advice the PTC staff during these initial stages of the course

Miss L. Arshad from PTC visited the Polymer School in December for 1994 to discuss the progress with the course. She was advised by Polymer School staff. The course has now run for one semester and the first set of examinations have taken place. The papers for these examinations were first sent to the Polymer School for approval and modification where appropriate.

PTC plan to follow this Certificate course with a Diploma course. Students passing this Diploma course will be guaranteed direct entry into the second year of the B.Eng in Polymer Engineering at the University of North London. The procedures for the validation of this course are now under way and the course should commence in the autumn 1995.

PTC are regularly carrying out development and consultancy work for various companies in Pakistan. This facility provided by the Centre is developing into an important commercial aspect of PTC.

PROBLEMS IN EXECUTING THE WORK OF THE CONTRACT

The main problem concerned timing for the various planned stages. The main delay was in no way due to the Plastics Technology Centre or the University of North London. It had not been foreseen that it would be necessary to obtain full government approval for the course and its funding. Due to a National Election in Pakistan the various stages of the necessary approval and decision making had to await a new Government Administration.

CONCLUSION

The contract objectives have been satisfied. The Plastics Technology Centre is now established with very good facilities for polymer technology and a team of well trained staff. PTC now offers a range of courses to provide the plastics industry in Pakistan with the opportunity to update their work force. The courses range from one week short courses to what will be a two year full-time programme. The longer courses will enable young people to train and become qualified for a career in the plastics industry. These courses should contribute to the long term development of the Pakistan Plastics Industry.

PTC also offers a consultancy service to the Pakistan plastics industry to help with production difficulties or developmental problems. The UNIDO contracts has led to a continuing relationship between the School of Polymer Technology at the University of North London and the Plastics Technology Centre, Karachi. This relationship will continue to the mutual advantage of both parties.

PTC is now equipped to be a major contributor to the future development of the Pakistan Plastics Industry.

Michael O'Brien
Head of School of Polymer Technology
University of North London
March 1995.