

AIRGRAM

INTERNATIONAL COOPERATION ADMINISTRATION

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Industry Repts

FISCHER, E/W.

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336.095195
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Fischer

FROM **Seoul**

AGENCY FOR INTERNATIONAL DEVELOPMENT

1	OF	10
DATE SENT		
7/24/62		
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7-30		

SUBJECT **End-of-Tour Report of Edward P. Fischer, FSR-5 A.I.D./W M.O. 325.1**

REFERENCE (one before each address)

PD-ABD-787
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ADDRESS AND SERIAL NUMBER

A.I.D./W TOAID A 165

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In accordance with USOM Order 820-3 the attached report was prepared by the incumbent.

He has made an accurate report of his activities during his first tour of duty as a technician in Korea.

Action on Recommendations:

The incumbent has correctly stated the need for additional training required if Korea is to have its products accepted at home and abroad and his recommendation is an appropriate one which is being brought to the attention of the ROKG.

OTHER AGENCY

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END-OF-FOUR-REPORT

Edward P. Fischer - FSR-5

Position No. KOR-523-T
Industry Advisor (Metal Products) Industry Branch
Industry & Mining Division
USOM/KOREA

Date: July 12, 19621. General Objectives and Specific Goals:

a. General Objectives:

(1) The overall objectives of my two year tour assignment in Korea, beginning 3 August 1960, and terminating 10 August 1962, (for home leave and return to post) was to introduce and develop a workable system of production engineering in the Korean metal products industry.

(2) To induce sponsors to apply modern methods of proven engineering principles in their plants, to upgrade and increase productivity in both A.I.D. funded projects and non-A.I.D. organizations.

(3) Assist and advise all levels of management the procedures and know-how of metal products manufacture in the medium and small industry categories, in order to produce end-products economically which will be acceptable in quality, and in sufficient quantities, to the military and civilian economy demands of consumers.

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(4) Assist and advise the Republic of Korea Government counterpart personnel, in factory equipment implementation, product manufacture, and performance evaluation of A.I.D. funded industrial projects.

b. Specific Goals:

(1) Assist and guide A.I.D. and non-A.I.D. metal products manufacturing organizations in the training of plant supervisory and working personnel at plant location in modern methods, procedures, economic practices and applications in the following:

- (a) Plant layout
- (b) Equipment selection
- (c) Man-power requirements
- (d) Technical skills training
- (e) Work planning and control procedures
- (f) Work simplification methods
- (g) Quality control and inspection of products
- (h) Standardization practices
- (i) Metal cutting principles
- (j) Industrial safety.

(2) Introduce and instruct company management in mass production methods, so as to produce interchangeable parts and reduce manufacturing costs by the utilization of such devices as jigs, fixtures, and special tooling.

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2. Activities:

a. My first assignment as an Industry Advisor (for a 4 month period) was to assist in selecting and specifying laboratory equipment in the preparation of PIO/C's for implementation of the "National Industrial Research Institute" project which is to be the Bureau of Standards for Korea. The objective of this A.I.D. funded project is to analyze, test, and ascertain the quality of Korean manufactured commodities.

My duties were to assist the project supervisor in the following:

(1) Select, specify, and prepare PIO/C's for the necessary laboratory equipment and accessories applicable to test and evaluate industrial products and other commodities.

(2) Advise and guide laboratory technicians and trainees in testing and inspection procedures.

(3) Instruct personnel in the operation and maintenance of mechanical engineering laboratory equipment. Furnish standardization information relating to metal products manufacture and interpret United States Military, Federal and other specifications and standards for the laboratory technicians.

b. Assigned full responsibility and guidance of the National Industrial Research Institute during Mr. Otto H. Eiffert's (A.I.D. Industrial Development Advisor) absence from Korea. This assignment was from April 7, 1961, through August 28, 1961, a period of 5 months. The United States

Military Agencies in Korea currently expend approximately \$72,000,000 yearly for the procurement of Korean commodities and services. The National Industrial Research Institute laboratories are utilized by the U.S. Military Forces to test and evaluate commodity quality prior to procurement. These laboratory facilities are an important factor in the support of U.S. Forces in Korea.

c. My first major assignment was direct project supervision of sixteen (16) A.I.D. funded projects in the medium and small industry category. These projects were in various degrees of construction and operational status. They produce a variety of products under many kinds of manufacturing procedures.

The industrial products manufactured are as follows:

- (1) Diesel Engines (Automotive and Stationary)
- (2) Anti-friction Bearings (Ball and Roller Types)
- (3) Automobile Parts
- (4) Aluminum and Zinc Die Casting Parts
- (5) Turbine and Centrifugal Pumps
- (6) Steel Furniture
- (7) Steel Wire Rope
- (8) Miscellaneous Finished Steel Products
- (9) Petroleum (Lubricating Oils).

These projects under my direction and supervision are located in many sections of Korea. To perform my duties providing technical services, disseminate productive instructions and appraise project progress, numerous field trips were undertaken. On these field trips technical assistance services were performed to both A.I.D. and non-A.I.D. industrial establishments.

d. Encouraged and assisted plant level management to begin on-the-job-training to upgrade supervision and technical skills as a means to overcome the manpower shortage in these categories.

e. Advised and coordinated the utilization of surplus and non-utilized equipment and accessories.

f. Provided advice and technical assistance in developing products for which a market exists at a competitive price level.

g. Introduced and instructed factory personnel, manufacturing processes and quality control procedures to upgrade end-product quality and quantity.

h. Provided engineering know-how, technical information and consultative advice in the construction of jigs, fixtures and production tooling to mass produce interchangeable and uniform components; to simplify assembly operations and decrease manufacture cost.

i. Introduced and instructed industrial safety techniques to plant level management (A.I.D. projects and non-A.I.D. organizations).

revolution with a new government administration, the prerequisite for obtaining funds for small and medium industry projects has eased. Improvement is visualized in this sector of industry.

(2) Offshore participant training in the metal processing industry can be considered successful for the purpose intended, mainly, the engineering techniques and manufacturing process sequence, but this type of training is unable to contribute to the development of basic technical skills, such as, metal working, tool construction, electrotechnics etc. Skilled technical workers are in the minority for present Korean industry needs. The five year Korean economic development program, which is vast in scope, places particular emphasis on the metals processing industries. These plans if financed will require large numbers of skilled workers and technicians. To overcome this shortage additional and accelerated training is required. Present plans being formulated and financially supported by the ROK Government to supply this demand of technical skill is by the vocational school method. This is a good approach but a long-ranged process and the critical need is now. To neglect this training as it has in the past, will further retard Korean industrialization. Present and future industrial effort, with government support, must develop with-in-industry training wherever economically feasible. Industry must adapt methods to upgrade present employees and train additional personnel to cope with the five year plan demands.

Recruitment for new industry as proposed by the school training method will not provide the necessary technical skills for this vast economic expansion plan. Industry and government leaders view this problem with great concern and to-date they are without a realistic solution.

4. Evaluation of Results:

An area where advancement and productivity has been achieved is in the small and medium industries. This has mainly been due to the release of funds in the form of one-year-term government loans. These loans made possible operation capital to procure material and furnish employee wages. This funding enabled many of the metal processing plants to participate in furnishing services and supplying commodities to military forces. The agriculture diesel engines manufacturing plants funded by A.I.D. are operating satisfactorily. The water pump, wire rope, lubricating oil refining and other metal products manufacturing projects are operating and show progressive employment increases.

5. Recommendations for the Present and Future:

a. Industrial manpower training.

Under the guidance of the ROK Government and the related ministries a realistic technical skills training program should be initiated. Apprentice training in cooperation with industry should be geared to meet the requirements in 1962 and 1963 and eventually 1965 and 1970. This training to be at a level above the basic vocational school education type. A good sound apprentice training program is

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necessary. Training centers should be established and staffed with capable and knowledgeable instructors and these training centers should operate in conjunction with industry in-plant training. Utilization of adequately equipped vocational schools should be considered as the training centers. The functions of the training to be as follows:

(1) Provide skilled instructors to upgrade present industrial supervisory and plant workers.

(2) Provide training to upgrade present vocational school instructors and graduate students who should be an initial source of additional instructors for schools, plant on-the-job training, and skilled artisans.

(3) Provide training in procedures and techniques of production tooling, such as fixtures and special tools to mass produce interchangeable parts and insure uniformity of manufacture.

(4) Provide instruction and information in industrial safety.

(5) Provide training for management in work planning and control procedures.

(6) Provide information and know-how in manufacture standardization, production processes, and plant operations.

(7) Provide training in inspection and quality control procedures.