

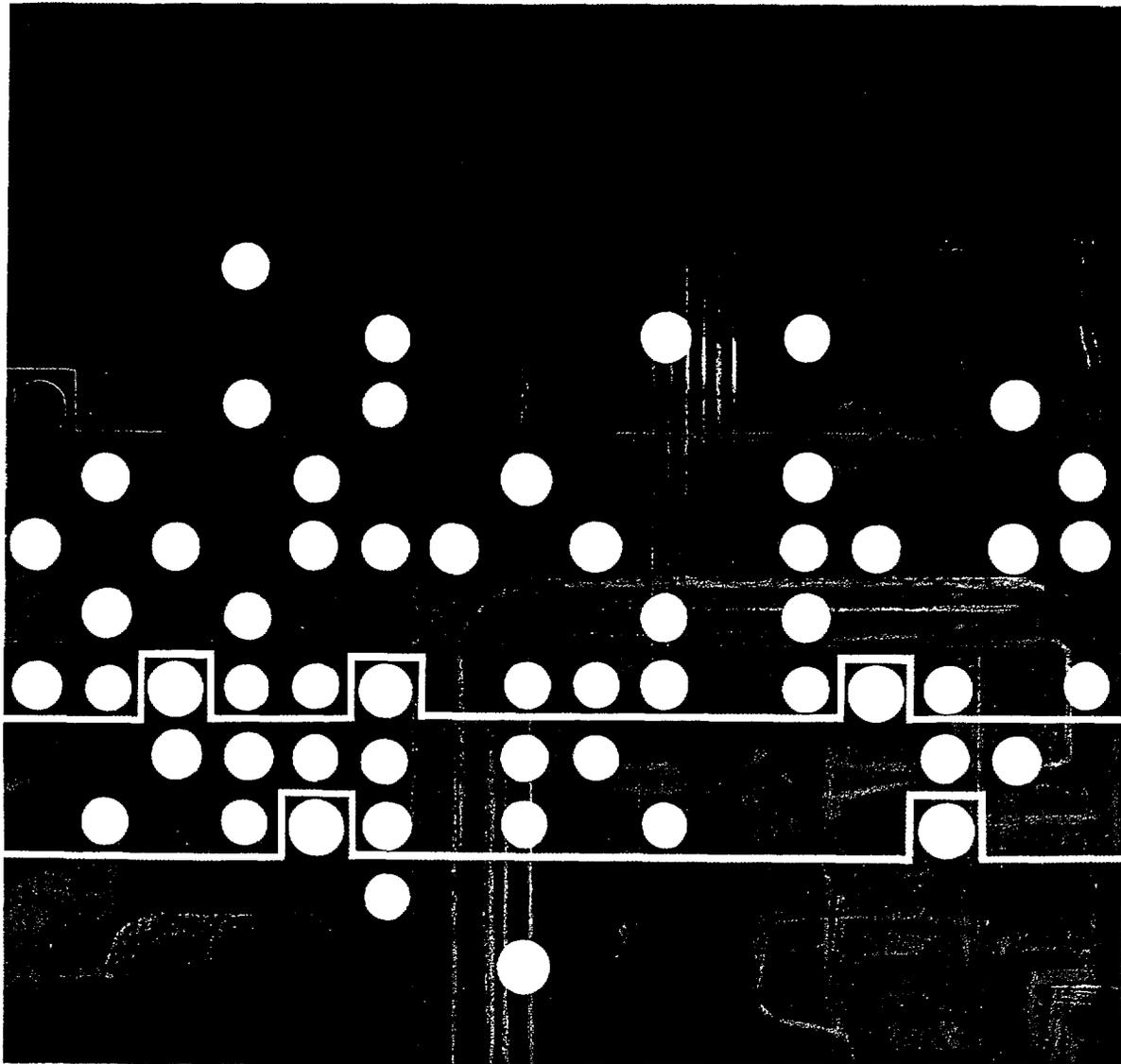
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INSPECTION OF EXPORT PRODUCTS IN KOREA

A.I.D.
Reference Center
Room 1656 NS



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I. EXPORT INSPECTION SYSTEMS

Introduction

Although it appears rather obvious, it is nevertheless necessary to emphasize the fact that an inspection system is only the means to an end, not the end in itself. Adequate, efficient inspection may detect but not define the far deeper problems lying beneath in some omission of quality control.

Knowing the exact dimensions of the total problem, then, may involve, 1) a study of the results of substandard quality control made evident through inspection, 2) physical tests, sometimes complex and protracted, to define the causes, 3) an investigation in the product plant to locate these causes, 4) broadening the investigation to sources of materials and services outside the product plant, if required, and 5) troubleshooting the causes according to the technology involved.

It is equally obvious that some problems of inspection and quality control are far simpler than others, but serious defects in product quality rarely have simple solutions. Most often, the first indication of trouble is a customer's complaint. Proper analysis of the complaint itself may save much time and effort in tracing the trouble back through the inspection system and the production process.

One should also be reminded that quality control and inspection problems are continuous, even in the industrialized nations. New sources of supply, new or modified product lines, new markets, new employees and machines, new maintenance procedures or environmental changes, etc., etc. may all be suspect at one time or another in substandard products.

Types of Inspection Systems

There are three types of inspection services in Korea.

a) ROK Government agencies inspecting certain products which by law must be inspected for export

b) Producers or manufacturer's associations or cooperatives which provide their own inspection of exports

c) Completely private and mostly foreign companies with no government or association or cooperative connections, living on fees provided by producers or customers who require their services

ROK customs is also involved in many inspections and maintains one large, well equipped laboratory at Pusan (exclusively for imports), but their interest is limited to grading and classification for tax purposes.

The present report is devoted to those inspection agencies which are or will be involved directly in the MCI export promotion program. This is generally limited to the ROK Government and the producers' associations and cooperatives. The private, foreign groups may be asked to help but they are not involved in the quality control relationships which the others must consider in their inspections.

Problems

What are the problems of these agencies?

1) Lack of modern inspection procedures and equipment and lack of staff trained in their application. Of these inspection services only those in raw silk, in hog bristles and human hair and in mineral products inspection were thoroughly up to date.

It is a curious commentary that both ROK Government and private industry have received many millions of dollars in AID benefits, including training, but the inspection services seem to have been completely overlooked.

Of course, they have been busy setting up their own laboratories and staff when they might have used existing facilities, e.g. NIRI, Provincial Labs. et al. This duplication of effort and equipment is described in more detail on pp. 4 - 5, sect. 2.

This problem also encompasses the need for current information on foreign markets and their inspection regulations, product features, prices, volume, packing, advertising and any other information that relates to getting an attractively packed product of good quality and performance at the right price, in sufficient quantity, in the proper market at the right time. This simply means that without this information one cannot evaluate i e. inspect and grade, the local product in terms of the competition it must meet

Another way to say this is that most Korean producers are not up to date on the specifications that are essential in world markets. The work done by the Bureau of Standards (MCI) in adopting, translating and adapting international standards according to local conditions is far more extensive than most Korean producers know. In fact, that is the crux of the situation. These standards have not been properly

communicated to many producers who need them and additional contacts with industry are required to determine priorities in local standards development and for better understanding in their application.

2) Compartmentation. A typical "bureaucratic" phenomenon, compartmented responsibilities are a major problem in two of the biggest inspection agencies, in fish and in fruit and vegetables. For example, in the case of canned products, both disclaim any responsibility for the quality of the cans and for the products after canning.

As a matter of fact, these responsibilities have not been assigned and the Bureau of Standards has not worked on Korean standard marks (KS) for several of the more important types of cans, because they disclaim the responsibility for "food products" (although this is a metallurgical and plastic liner specification) and the law prescribes their scope of operation as "industrial." It is true that in Japan they have one set of industrial standards (JIS) and another for agriculture including food (JAS). Korea has no KAS. This means that the food canners have not ordered (in fact, can claim not to know what to order) according to exact specifications for cans. The cost of importing preformed cans (required by law for certain food products including fish) is so high that the law has frequently been ignored and locally made cans are used.

Similar "uncontrolled" areas exist in these and other inspection systems, e.g. the "cottage industry gap" in handicrafts (p. 3, App. A). On the other hand, inspection of raw silk is integrated all the way from cottage to export dockside (p. 2, App. A) and illustrates what can be done. Whether such "enforced" control is desirable or applicable to other systems is something that must be carefully investigated. X

3) Unassigned items. In #2 (above) the gaps in a given product line have been discussed. In addition to this, whole categories of products, e.g. machinery, chemicals, rubber, glass, plastics, metal products, electrical equipment, wood (other than handicrafts), paper products and most other manufactured items are not yet assigned to any inspection system or agency.

Recommendations

Most of the inspection agencies are aware of the problems set out in the foregoing. With time, money and expert help they are willing and able to better define and solve the problems within their present areas of inspection.

1) Volume of work. MCI must work closely with the agencies in designating new or modified products for export for which they will be responsible. Budget and time must be sufficient to get the job done, in the agencies' opinion as well as MCI's

The preoccupation with elegant equipment and top heavy administrative staff, so common in developing countries, must be carefully considered in any attempt to help "update" these inspection systems, but their present shortages are quite realistic and must be made up if they are to make any additional contribution to the export promotion program. Certainly there are some needs so great, they should be supplied as quickly as possible, e.g. a bacteriological inspection and testing facility for both the fish and the fruit and vegetable inspection agencies

At the other extreme, there is also the necessity to avoid allocations of substantial sums of money for export promotion without enough time or staff to spend it efficiently.

Korean exports (1952 - \$50 million) have risen 72% in 1963 (\$87 million) and 27% (est.) in 1964 (\$109 million) Anything like the attainment of the 150 new plants or products every 6 months that the export promotion program has as its goal for the 18 months following July 1, 1964 will likely swamp the present facilities of some of the existing inspection agencies and multiply the unassigned items faster than inspection systems can be created or expanded

2) Laboratory network A recommendation was made in an IMD-I report of Aug 1964 (Korea Export Program) which should be reviewed here Because of the overall shortage of inspection type testing facilities, the report pointed out that, "There are 12 ROKG laboratories in Korea (excluding the ROK Army facility and several special industry labs e.g Korean railroads, mining, and control labs. at fertilizer, cement and glass plants, etc). Out of these 12 ROKG labs. the National Industrial Research Institute (NIRI) is by far the best equipped and staffed, has the only adequate technical library, international standards and specifications literature and the largest yearly operating budget ₩32,000,000 (\$128,000) A staff of 90 engineers and scientists are equipped to perform tests according to most international standards electrical, electronic, chemical, mechanical and other physical standards except biological and pharmaceutical standards

"Also, among these 12 labs there is one specializing in biological and public health tests, another in civil engineering tests and a third which is the ROKG Geological Survey test facility in Seoul with a branch in Taejon. The so-called 'provincial' laboratories, mostly poorly equipped and staffed (an exception at Taegu) and a very adequate ROK Customs lab. in Pusan make up the rest.

"These labs. could be reorganized into a network to provide convenient quality control testing and trouble shooting in almost every major industrial center in Korea.

"This network should be coordinated with the standard mark system (KS) of the Bureau of Standards. As the latter is not equipped and staffed to inspect and follow-up on plants authorized the use of standard marks, the testing network and inspection agencies could also handle Bureau of Standards inspection and testing work at the same time with small additional cost.

"As a matter of fact, NIRI has been officially designated as the testing facility for the Bureau of Standards, but the Bureau, even in the recent past, has considered providing its own testing, a complete duplication of existing laboratories. Coordination of the work of the Bureau, Korea Productivity Center (KPC) and existing labs. would facilitate getting on top of the entire problem of quality and production control. The KS mark, now applied only to products which are up to local and modified standards, could be extended to an "export" grade KS mark which inspectors could use to establish a durable reputation for Korean exports in world markets "

NIRI is the only facility in Korea that has experience in testing many of the unassigned (p 3, Sect 3) products and the only "official" inspection available for these same products is that offered by the various privately owned foreign groups such as Inteco, et al (p 5, App A). Their backup testing is done in foreign labs, or at NIRI

NIRI has been allocated funds and is already out in the field offering its services to a number of small plants designated by MCI as having export potential. Response is poor, as should have been expected, because a) almost all are not ready (nor could they be in the near future) to consider export grade production, b) they are afraid of government penalties and interference. NIRI was granted ₩ 5 million (\$20,000) for this service in November. It must be spent by Dec 31, 1964. The allocation for all of 1965 is also ₩ 5 million'

It is not clear what the Bureau of Standards is doing to meet the increased need for standards and specifications.

3) Inspection by manufacturer's associations and cooperatives
The kind of inspection and testing required in many of the unassigned product categories (e.g. machinery) is highly specialized. MCI has proposed to put this responsibility on the backs of the various manufacturers' associations. It is conceivable that some, e.g. the rubber tire manufacturers group, might do a rather creditable job in view of existing in-plant inspection and testing, but most have only fragmented inspection systems in their plants, few have facilities that could be called testing labs and most of the associations' experience has been in procurement, finance and politics rather than in technology.

This is not to say that such a plan is impossible to implement. Its success in Japan is a matter of record, but the difficulties must be faced squarely. It will take a long time.

With a laboratory network, however, field inspectors of existing inspection agencies could take necessary samples to conveniently located laboratories, e.g. the Survey Lab. at Taejon, Provincial Lab at Taegu, Customs Lab. at Pusan, NIRI in Seoul. Hanguk Machine Co. (ROK owned) at Inchon has a complete gage lab already offering gaging and recalibration of gages for a moderate fee. Rehabilitation of the other Provincial Labs would also help to fill in the holes in the testing system as a foundation for effective inspection.

4) Intragovernment competition. This must be carefully avoided. Dissension and confusion within ROK government agencies concerned with export promotion (as indicated by the following article from one of the commercial bulletins) completely disrupts an inspection system.

"The ROK Government believes that the export of leaf tobacco is so important that it is regrettable that the Office of Monopoly and the Ministry of Agriculture & Forestry compete over jurisdiction and six private trade firms compete for the product itself.

"On May 19, Japan decided to import leaf tobacco from Korea, but the export has not yet been realized, thanks to competition among Government agencies and private firms. On September 18 Japan advised the Korean Government as follows

"a) The export agencies should be unified. b) Nicotine content should be kept below 2 per cent. c) Quality of exported leaf tobacco should be uniform.

"Had it not been for the competition among Government agencies and private firms, export would already have been realized and Japan would not have felt it necessary to set its own specifications.

"As of the end of October, total export performance for this year was \$91,098,000, 76 per cent of the annual goal of \$120 million. Leaf tobacco export performance was only \$117,000 or a bare 9% of the annual target of \$1.3 million."

5) Certain major inspection problems must be attacked, one by one. This should be done as they are identified in a given product line and in context with their causes, e.g. canned fish spoilage.

Canned fish spoilage - A model test case

This problem has been selected for an investigation which could serve as a model in similar high priority product lines. Fishing and fish products are targets for a major development program in Korea because of the very high export increase potential. Moreover, out of more than 300,000 MT/yr (1964), of fish landed in Korea, no more than 400 tons were canned. Downgrading and waste with big catches is a common observation and the resultant fluctuation in price is a headache to everyone involved.

The present inspection system is badly compartmented, large areas in the product line are unassigned and the results are spoiled canned fish in the export customers' warehouses. The inspection system does not indicate where the trouble lies. Even the complaints are not specific enough to be analyzed as to type of fish, type and size of can and chemical and/or bacteriological causes of spoilage.

The situation is also a model of the necessity for determining where quality control is lacking - imported materials for cans, can manufacturing vs. imported cans, cannery processes, sealing, packing, shipping, overall materials handling, etc. etc.

It is certain that two gaps must be closed, a) fish must be inspected in the can and on the shelf (so called shelf life tests) and, b) bacteriological analyses must be made at a several points in the product line.

No answer may be had for an adequate inspection system until the complaints are analyzed and the product line scanned, possibly all the way from imported black sheet to export dockside.

The problem is further complicated by a government regulation requiring that preformed cans made according to specifications be used for all canned fish products, a regulation that is apparently violated more often than it is kept.

If this proposal is approved, the USOM/K - IMD-I and RDD would work with the National Industrial Research Institute (NIRI) in analyzing complaints and running down the cause or, more likely, causes. Recommendations may then be made for a thoroughly effective inspection system based on an adequate quality control system.

II. EXPORT INSPECTION POLICING VIOLATION AND PENALTIES

Organization Chart

The inspection services for a) policing export quality, b) reporting violations and c) imposing penalties which are associated with the ROKG are represented on Chart I (p. 8a).

Export Inspection Law

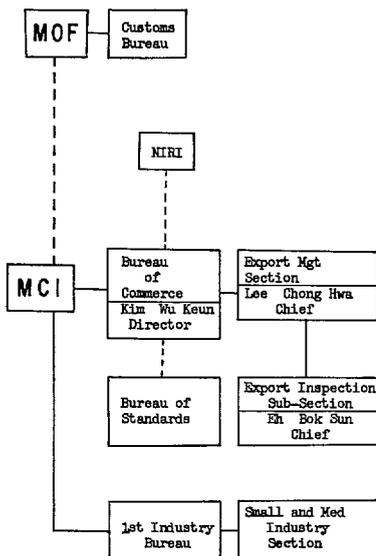
The Export Inspection Law #1164 of 4 October 1962 (amended June and Jan. 1963) spells out the responsibility for export inspection (articles 14 - 25, pp. 6 - 10) and defines in some detail the investigation and reporting of violations, suspension of export privileges, appeals from such suspension, etc. (articles 29 - 32, pp. 11 - 13) and pins the responsibility squarely on MCI with some sharing of final decisions with other ministries who might be involved via the inspection agency, the product, or the individuals involved, e.g. fisheries inspection under the MAF (Ministry of Agriculture and Forestry).

The Law then proceeds (articles 35 - 38, pp. 14 - 15) to detail penalties applicable to individual violators.

What are the Penalties and How Applied?

Under the older law for public servants bribery, collusion, misrepresentation, in fact, any act against the public trust or commonweal are punishable as crimes with penalties ranging from fines and imprisonment to death. This law still applies to all ROKG inspection agency personnel and is enforced by the ROKG court system.

ORGANIZATION OF EXPORT INSPECTION SYSTEM (1963)



Mineral Products Inspection Agency
(72)-2501
Hwang, Ki Ryong, President

- 1 Mineral ores and concentrates
- 2 Private
- 3 Part of Mining Association of Korea and the Association president has the supervisory responsibility
- 4 Yes - adequate
- 5 15 (9) - Adequate
- 6 Standards - international sampling in port cities testing in Seoul

- 7 Fees & subsidy (from Mining Association of Korea)
- 8 Policing, penalties etc - adequate
- 9 Training - adequate
- 10 Budget - adequate
- 11 Coverage - adequate

Korea Text Inspection and Testing Institute
(74)-2611
Park Yung Shik Director

- 1 Cotton fabrics
- 2 Private
- 3 Although claimed to be independent maintains close relationship with Spinners & Weavers Association of Korea
- 4 Yes - needs beefing up
- 5 16 (9) - Inadequate

- 6 Standards-international inspection at plants and testing in Seoul
- 7 Fees no subsidy (self-financed)
- 8 Policing penalties - adequate
- 9 Training - inadequate
- 10 Budget - inadequate
- 11 Coverage - inadequate

Korea Handicraft Inspection Agency
(2)-4368
Kim Yung Ho President

- 1 Handicraft products
- 2 Private
- 3 Reports directly to Federation of Korean Handicraft Coop Association
- 4 No testing laboratory only field inspection equipment
- 5 19 (16) - inadequate

- 6 Standards - local inspection - field only
- 7 Fees & subsidy (from the Association)
- 8 Policing penalties etc - inadequate
- 9 Training - inadequate
- 10 Budget - inadequate
- 11 Coverage - adequate

Korea Bristle Inspection Agency
(2)-5870
Park, Dong Sup President

- 1 Bristle human hair fur
- 2 Private
- 3 Reports directly to Korea Bristle Processors Coop
- 4 No - not required
- 5 5 (3) - adequate

- 6 Standards - international, inspection - field only
- 7 Fees & subsidy (from the Association)
- 8 Policing penalties etc - adequate
- 9 Training - adequate
- 10 Budget - adequate
- 11 Coverage - adequate

Brewing Experiment Station
(73)-3982
Lee, Sung Kwon Director

- 1 Alcoholic beverages
- 2 Government
- 3 Reports to Ministry of Finance.
- 4 Yes - adequate
- 5 10 (7) - Adequate
- 6 Standards - international inspection - field only

- 7 Fees & subsidy (from MOF)
- 8 Policing penalties etc - adequate
- 9 Training - adequate
- 10 Budget - inadequate
- 11 Coverage - adequate

Agricultural Products Inspection Institute
(72)-3026
Koo Yoon Suk Director

- 1 Farm products (grains fruits vegetables etc)
- 2 Government
- 3 Reports to Ministry of Agriculture and Forestry
- 4 Yes - needs additional instruments
- 5 1082 - (930) - inadequate

- 6 Standards - international inspection - in 7 branches and Seoul Laboratory
- 7 Fees & subsidy (from MOAF)
- 8 Policing penalties etc - inadequate
- 9 Training - inadequate
- 10 Budget - inadequate
- 11 Coverage - inadequate

Fisheries Inspection Station
(72)-2417
Lee Kuk Won, Director

- 1 Marine products
- 2 Government
- 3 Reports to Ministry of Agriculture and Forestry
- 4 Yes - needs beefing up
- 5 134 (100) - inadequate

- 6 Standards - international inspection - field and Seoul
- 7 Fees & subsidy (from MOAF)
- 8 Policing penalties etc - inadequate
- 9 Training - adequate
- 10 Budget - inadequate
- 11 Coverage - inadequate

National Silk Inspection Institute
(4)-2982
Lee, Chai Tung, Director

- 1 Raw silk
- 2 Government
- 3 Reports to Ministry of Agriculture and Forestry
- 4 Yes - adequate
- 5 40 (28) - adequate

- 6 Standards - international inspection - Seoul only
- 7 Fees & subsidy (from MOAF)
- 8 Policing penalties etc adequate
- 9 Training - inadequate
- 10 Budget - adequate

National Animal Quarantine
(6)-3134
Im Yun Hui Director

- 1 Animal and poultry products
- 2 Government
- 3 Reports to Ministry of Agriculture and Forestry
- 4 NA
- 5 NA (12)

- 6 Standards - international inspection - Seoul only
- 7 Fees & subsidy (from MOAF)
- 8 Policing penalties etc - adequate
- 9 Training - adequate
- 10 Budget - adequate
- 11 Coverage - adequate

National Federation of Forestry Association
(72)-3929
NA

- 1 Forestry products (dried fungus etc)
- 2 Government
- 3 Reports to Ministry of Agriculture and Forestry
- 4 NA
- 5 NA (12)

- 6 Standards - NA
- 7 Fees & subsidy
- 8 Policing penalties etc - NA
- 9 Training - NA
- 10 Budget - NA
- 11 Coverage - NA

National Institute of Health
(72)-0031
Kim Soo Nyung Director

- 1 Ginseng products except w/r.
- 2 Government
- 3 Reports to Ministry of Health and Social Welfare
- 4 Yes - adequate
- 5 6 (3) - adequate

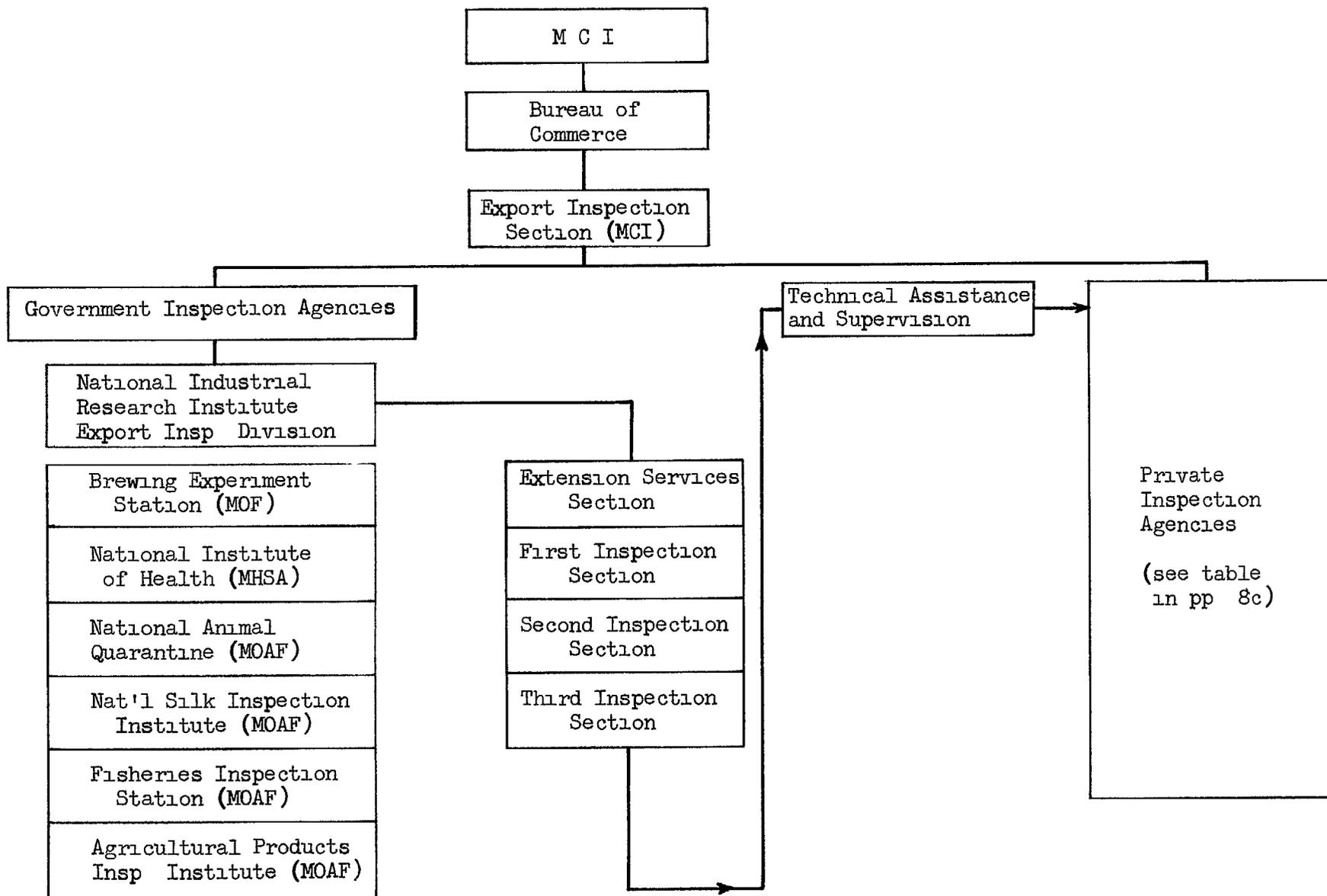
- 6 Standards-international inspection - field & Seoul
- 7 Fees & subsidy
- 8 Policing, penalties etc - adequate
- 9 Training - adequate
- 10 Budget - adequate
- 11 Coverage - adequate

Name of Agency
Telephone Number
Title & Name of responsible head

Legend

- 1 Items of inspection
- 2 Whether private or government agency
- 3 Reporting agency or relationship with other organization
- 4 Laboratory facility
- 5 Total number of employees (inspectors)
- 6 Inspection standard whether International Standards or not & where inspected
- 7 Fees, income and subsidy
- 8 Policing penalties etc
- 9 Training replacement etc
- 10 Budget
- 11 Inspection Coverage

ORGANIZATION OF EXPORT INSPECTION SYSTEM (1966)



- 8b -

KOREAN EXPORT PRODUCTS INSPECTION AGENCIES

Name of Organization	Address	Telephone	Responsible Official	Items In p ted
1 Government Agencies				
Agricultural Products Inspection Institute (MOAF)	#117-29 Kwan-hoon Dong, Chong-ro Ku, Seoul	72-3026	Koo Yoon Suk Director	9 items (fruits seeds, vegetables loofah canned foods fruit tree seedlings flower seedlings)
Fisheries Products Inspection Institute (MOAF)	#103 Won-nam Dong Chong-ro Ku Seoul	72-2417	Lee Bong Rae Director	9 items (frozen, dried salted and canned marine products fish liver oil agar-agar fish flour fish meal processed fish products, sea weed)
National Federation of Forestry Associations (MOAF)	#192-2 Sang-rim Dong Choong Ku Seoul	52-5938	Lee Ho Sul Chief Inspector	2 items (dried mushrooms, dried fungus)
Brewery Laboratory (MOF)	#451, Ah-hyun Dong Ma-po Ku Seoul	73-3026	Lee Sung Kwon Director	5 items (beer fruit wine, kaoryang wine chong-ju other alcoholic beverages ginseng wine)
National Institute of Health (MHSA)	#35, Nok-bun Dong Suhdaemoon Ku Seoul	72-0031	Kim Soo Young Director	4 items (ginseng preparations, powder tablet, extract and liquid)
National Animal Quarantine (MOAF)	#5-128, Yangpyung Dong Yungdongpo Ku Seoul	6-3134	Im, Yun Hi Director	3 items (beef cattle hogs ducks etc)
National Industrial Research Institute (Export Products Inspection Div) (MII)	#199, Dongsong Dong Chong-ro Ku Seoul	72-0207	Park, Im Suk Director	9 items (storage battery aluminum kitchenware brass sheets aluminum sheets, brass wire lead pipe bronze valves water faucets, aluminum window sash)
National Silk Inspection Institute (MOAF)	#191-11 2-ka, Han-gang Ro Yongseang Ku Seoul	4-2982	Lee Chai Yang Director	2 items (raw silk yarn Dupion silk yarn)
2 Private Agencies				
Mineral Products Inspection Agency	#35-24 Tong-ui Dong, Chong-ro Ku Seoul	72-2501	Hwang Ki Ryung President	21 items (iron ore anthracite fluorite pyrophyllite, amorphous graphite, crystalline graphite tale tungsten tin ore barite molybdenum ore zinc ore, andalusite nickel ore manganese ore quartz kaolin feldspar dolomite, silica sand)
Korea Textile Inspection and Testing Institute	#8-11 2-ka Chong-ro Chong-ro Ku Seoul	74-2611	Park Yang Shik Director	8 items (cotton yarn cotton fabric (unfinished) cotton fabric (finished), staple fiber yarn staple fiber fabric mixed spun yarn woolen yarn, wool fabric)
Korea Woven Fabric Inspection Agency	#20-4 Dang-joo Dong Chong-ro Ku Seoul	74-5201	Yuk Young Soo Director	7 items (silk fabrics rayon fabrics synthetic fiber fabrics mixed yarn fabrics, towels embroidered fabrics corduroy fabrics)
Korea Handicraft Inspection Agency	#72-9 2-ka Cho Dong, Choong Ku, Seoul	22-4368	Kim Yung Ho President	12 items (lacquerware metallic artware bamboo artware, grass products, reed products art fabrics and embroidery dolls and toys glass artware wooden artware, stone artware paper artware other artware)
Korea Hair and Bristle Inspection Agency	#24-5 1-ka Choong-mu Ro, Choong Ku Seoul	22-5870	Park, Dong Sup President	7 items (selected hog bristle human hair, rabbit fur, Kolinsky fur, goat hair raccoon fur badger fur)
Korea Knitted Goods Inspection & Testing Institute	#48 1-ka Shinmoon-ro, Chong-ro Ku Seoul	74-7619	Kim, Chi Seum Director	5 items (sweaters socks gloves knitted underwear, tricot raschel)
Korea Machine Industry Testing and Inspection Agency	#71-7, Gal-wol Dong, Yongsean Ku Seoul	4-3851	Choi Han Hi Director	2 items (pliers hacksaw blades)
Korea Automobile Industry Testing and Inspection Agency	#24-3 Cho Dong Choong Ku Seoul	23-3569	Lee Tae Kyo Director	12 items (pistons piston pins piston rings, leaf springs, spring sheets for leaf springs metal bearings cylinder liners valves, axle shafts, front headlights, valve guides fan belts)
Korea Bicycle Industry Testing and Inspection Agency	#41 3-ka Ulchi Ro Choong Ku, Seoul	22-6015	Park, Jang Yup Director	4 items (bicycles parts for bicycles bicycle tires, bicycle tubes)
Korea Metals Testing and Inspection Institute	#82 Soo-pyo Dong, Choong Ku Seoul	22-5273	Song Jae Chun Director	10 items (galvanized iron she ts steel wires steel conduit pipes mild steel coated arc welding electrodes mild steel wires wire rod, structural steel steel sheet steel bars reinforcing bars)
Korea Agricultural Implements Testing and Inspection Agency	#123 1-ka Do Dong, Choong Ku, Seoul	22-5606	Un Yoo In Director	2 items (internal combustion engines spade and scoop)
Korea Rubber Products Testing and Inspection Institute	#7 1-ka Shin-moon Ro, Chong-ro Ku Seoul	74-0170	Lee Duk Fyo Director	6 items (rubber footwear, flat belt V belt conveyer belt, rubber sponge, rubber hose)
Korea Communications Industry Testing & Inspection Agency	#64-8 1-ka Taepyung Ro Choong Ku Seoul	23-1524	Joo Tae Kwon Director	1 item (radios)
Korea Dry Battery Inspection Agency	#23-10, 1-ka, Choongmoo Ro, Choong Ku Seoul	22-5292	Mok Ho Bum Director	1 item (dry batteries)
Korea Electric Wire Testing and Inspection Agency	#30-2 Myung Dong, Choong Ku, Seoul	23-2340	Yoon, Jong Won Director	4 items (PVC coated copper wire, enamel coated copper wire, bare copper wire rubber insulated copper wire)
Korea Electric Inspection Agency	#199-34, 2-ka Ulchi Ro, Choong Ku Seoul	28-4129	Yoo Ki Sook Director	8 items (motors transformers condensers watt-hour meters knife switches, key sockets sockets and plugs fans)
Korea Lighting Products Inspection Agency	#64 2-ka Choongmoo Ro, Choong Ku Seoul	28-7605	Kang Hi Doo Director	4 items (incandescent lamps fluoresc nt lamps fluorescent lamp starters decorativ lighting fixtures)

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Under the new law of 4 Oct. 1962 any inspector or official of any inspection agency who (which) is officially designated to inspect exports is subject to the same penal laws as ROKG public servants. MCI is further empowered to dismiss such individuals, to recommend (through the courts?) specific fines up to ₩ 500,000 and/or imprisonment up to 2 years (for individuals) and to cancel all export privileges (for individuals or companies) for infractions (including inadequate or careless reports on export activities) of the new Export Inspection Law.

Later Developments - The Export Management Section of MCI

When MCI got around to distributing some of these responsibilities on paper in early 1964, the Trade Promotion Section which reports to the Bureau of Commerce was designated as being responsible for a) working "through ... inspection agencies to maintain product quality, reporting below standard cases to the Bureau who, in turn, recommends corrections (including refunds) to industrial associations, et al." (Korea Export Program. IMD-I report of Aug. 1964 p 5 #3)

This same section was to "recommend legislation to update inspection laws" (ibid.).

However, by late October the Export Management Section of MCI, also reporting through the Bureau of Commerce, had inherited and assigned the responsibility for "inspection" to its subsection chief, Mr Euh.

Presumably, the subsection would be responsible for exactly the same inspection functions as had previously been assigned the Trade Promotion Section. The subsection has a staff of two men

NIRI and Bureau of Standards - What Do They Do?

The chart indicates that NIRI (for inspection testing assistance) and the Bureau (for inspection standards and specifications) should communicate continuously on their export inspection assistance with the Bureau of Commerce or through the Bureau to the subsection of Export Management.

Customs - How They Inspect

Although the Customs Bureau of the MOF (Ministry of Finance) is generally thought of in connection with imports, the customs officers are responsible for checking the certificate of inspection, sealing and seals for certain designated export items. In this activity they are also responsible for reporting violations.

Small and Medium Industry Section of MCI - Inspection?

A point of confusion is the responsibility earlier assigned to this section which reports through the First Industry Bureau of MCI. This was defined as "supervision and inspection of selected establishments"* (export manufacturers) shall be made by this section with the help of the Small Industry Cooperatives and the Provincial Governments.

Such "inspection" would apparently involve products inspection

Methods of Inspection

With the exception of raw silk and handicrafts, all inspections are made on a standard sampling basis. The raw silk inspection is made on the basis of inspecting every skein that is exported, at the inspection and testing facility located in Seoul. On the other hand, sixteen inspectors from the handicraft cooperatives inspection agency, trying to cover a great number of cottage scale operations, admittedly are unable to prevent exports of completely uninspected shipments. Moreover, lack of equipment prevents thorough inspection of items made by those producers they can reach

Minerals and ores, bristle and hair, laver, agar agar; fresh, frozen, dried and/or salted fish; fresh and dried fruits and vegetables, grains and pulses, beer, ginseng products except wine; feathers, hides, and animal and poultry exports can be said to be properly inspected according to standard sampling processes. All other export products range from no inspection at all (unassigned, e.g. machinery, chemicals, metal products, etc.) to incomplete inspections, e.g. only export cotton fabrics are inspected and only then under conditions severely limited by equipment and short staff. Convenient, adequate testing facilities are clearly lacking.

A Major Exception

Note that some completely unassigned items, e.g. tires and tubes, rubber shoes, plywood, flat glass, etc. are inspected by the manufacturer according to standards acceptable in the world market. Some others, agar agar, laver, electrolytic copper, some canned foods (using imported cans), some part of the G I sheet, cast iron pipe, some synthetic fabrics, wool yarn, etc are similarly inspected for export either by the producer or by foreign inspection agencies based in Korea who are retained by their foreign customers

* (ibid. p 8, #5)

What Happens to Rejects - a Built-In Penalty?

Food and many other product rejects are sold locally at lower prices. Many, e.g. rubber shoes, are put back into the product line and reworked to acceptable condition. Shipments rejected at dockside may cost the producer a fortune to upgrade or otherwise dispose of. A reputable electric motor manufacturer who makes a substandard motor must rebuild the product, which is a costly mistake. Shippers of defective G I sheet to Vietnam were required to refund almost the entire purchase price. However, legal penalties under the old or new law are not properly enforced and those built into rejections are not broad or strong enough to prevent the export of many low quality products. ✓

Recommendations

1 The apparent (where else?) assignment of the responsibility for quality of inspections, investigations (policing) and reporting of violations to the subsection of MCI's Export Management Section is unreasonable in terms of the staffing (2) of that subsection. ✓

It is understandable that nothing had been done, as late as the time of USOM/K (IMD-I) visits to inspection agencies Nov. 9 - 18, to increase staff anywhere in the existing inspection system or to improve or supply its many deficiencies ✓

It should again be emphasized that the present inspection system inadequately covers less than half of the items (by number) being exported at present. In volume and value the picture is better, but large categories remain untouched and this is to say nothing of new export products planned. ✓

In many cases, the quantity of product volume contracted for has been an inspection and/or quality control problem where producing enough of the product at a given specification was not planned according to the additional control and inspection needed

2 Confusion in policing and reporting violations must be clarified. The Bureau of Commerce has the responsibility of "recommending corrections" for violations to the Minister (MCI) who will, in consultation with other involved ministries, apply such penalties as revocation of export license for various periods or request the application of stronger penalties such as fines and/or imprisonment, but the section and subsection staff reporting to the Bureau is not organized to perform the job of supervision and filling the holes in

the present inspection system and collecting violation reports to be processed through the Bureau, much less to consider expanding the system to include many products not now inspected.

Also, what part should Customs play in reporting such violations Does MCI have any responsibility for acting on violations of what amount to laws as defined in the Oct 1962 Export Inspection Law? This law defines penalties for violations by "persons" but makes no reference to responsibility for reporting or applying the penalties.

III. SOME GUIDE LINES FOR USOM/K

One must first break the problem areas down into two major categories, 1) problems within the existing inspection system and 2) problems in expanding the system. ✓

1. The Existing Inspection System

The organization (see Chart I - p 8a) is a good organization on paper, but presently is not working. The inspection groups (agencies) continue the inspections as if they were not in a comprehensive organization responsible to MCI. The budgets, number and competence of personnel, equipment, testing facilities, training programs, enforcement of penalties, etc. remain the same, adequate or inadequate, as in the past

a) The MCI problem MCI has been brought squarely into the position of complete responsibility for export product inspection, quality, coverage, policing, penalties and enforcement and this responsibility is spelled out in the law (see p. 8).

1) Two man task force MCI has not been able to pick up this responsibility. Two men, neither one with any technical training whatever, make up the subsection of the (MCI Bureau of Commerce) Export Management Section which is specifically responsible for this tremendous task or, if this is not true no one in MCI has been able to indicate how or where responsibilities have been otherwise distributed ✓

2) Results The result is, of course, that budget, personnel, equipment and technical assistance according to the varying needs of various agencies, all go unheeded. These shortages must, of course, be analyzed, agency by agency, by some thoroughly competent technical person or persons and then budgeted and supplied on both a short and long term basis

Some other results, or lack thereof are the formation of an Export Inspection Committee reporting to the State Council but it has not been possible to discover how, or if, it is really doing anything. the granting of special funds to NIRI for back up testing of export product inspection, (see p. 5, Par. 6) but no apparent activity at the Bureau of Standards (with a staff of 60!) in back-stopping by adopting, adapting and interpreting standards and specifications for a number of products already in trouble in export markets

The Minister of MCI has certain powers (see p. 9 Par. 1) for enforcing penalties defined in the new law, but neither reports of violations nor enforcement of penalties are being routinely implemented through the structure (Chart I) set up for this purpose. Some penalties, e g. revocation of import license, have been applied after some major violation has come to light in the export market, e g. G I. sheet at Saigon, but this is, obviously, the wrong way to approach the problem. ✓

Amendments to the new law of June and Dec. 1963 define inspector qualifications and training at some length but there is no evidence that anything is being done to train additional inspectors according to these qualifications.

Finally, the testing laboratory network (p. 4, Sect. 2) of existing laboratories has not been implemented to fill many critical needs in the field for back up testing of samples. This need will grow as presently unassigned products are approved for export

b) Unassigned Areas and defects in the present system

These responsibilities should fall under the agencies designated by MCI to inspect certain products, e.g. Fisheries Inspection, and should be approached through additional budget for 1) inspectors trained in these areas with 2) the proper field equipment and back up testing of field samples (see p 4, Sect 2)

* There are still some reports in the commercial bulletins (Dongwha, et al) from MCI sources to the effect that it might be best to help the smaller and less capable manufacturing plants first! The Nov. Dec 1964 MCI grant to NIRI for testing assistance for potential exporters was largely limited (by MCI) to such plants ✓

2 Expanding the System

Completely unassigned products It has been pointed out (p. 6, Sect. 3) that the MCI plan to make producers' associations responsible for these inspections is not practical (with some few exceptions), unless, a) they are helped (may be the proper phrase is "compelled and helped") to recruit and train inspectors and b) provided, at least in the beginning, with proper back up testing facilities MCI would still be required to maintain some kind of monitoring system for violation reports and enforcement of penalties

In certain product lines where public health or welfare is involved, ROKG must institute or expand its own inspection and testing system.

3. Recommendations for Assistance

a) Organization assistance. Looking now at Chart I, it is clear that an expert qualified in inspection systems organization and administration is needed at the Bureau of Commerce level in MCI. He should be a member of the Export Inspection Committee, an advisor to the Bureau Chief and its Export Management Section as well as to the Small and Medium Industry Section, through the First Industry Bureau Chief. He should report directly to the Minister of Industry and, with the Vice Minister, constitute a three man subcommittee reporting to the Export Inspection Committee.

Such a man might be recruited from some broad purpose organization like the U S Bureau of Standards and should have a number of years of experience in organizing and administrating inspection systems. Someone who, for example, has been responsible for the development of new inspection systems for a number of years. Industry men with similar experience in both quality control and inspection systems would also qualify. Candidates of the caliber of Norbert Enrick (Industrial Press, N Y , N.Y) might be considered or someone recommended by the American Management Association, since the latter have been very active in quality control and inspection education The British Productivity Council had a Specialist Team on Inspection Methods several years ago which, if still operating, might be contacted for advice

Emphasis here is, of course, on inspection systems, but it is not likely that any candidate would have the experience required in inspection without a good background in quality control. Additional details or a job description are available when needed. The expert should be in Korea not less than two years and he should be willing to travel widely in the country in order to get acquainted, first hand, with the present inspection organization.

He would then be faced with the task of upgrading the existing system and expanding it to include many product lines which have no official inspection whatever. ✓

b) Specialists Although there are a number of competent inspection specialists in the existing agency system, additional experts must be brought in as problem areas are better defined. In fact, it would not be anticipating the organization expert to suggest that a bacteriological - toxicological inspection and testing facility must be set up for the food industries, i.e. a food industry biochemist is needed now and his job description could be written now in considerable detail. ✓

It should also be noted that inspection and/or quality control problems are concurrently being approached through other channels, e.g. USOM/K - RDD has a grain storage specialist in Seoul on a 3 months TDY. This man will undoubtedly get into some of the grain inspection problems UN Special Fund is providing a foundry - machine shop expert and an electrical shop inspection expert to NIRI beginning about June 1, 1965. ✓ Also, there is a French Government expert on shrimp in Korea who, undoubtedly, will look into inspection methods. ✓

It is again suggested that IMD-I undertake, as soon as possible, a sampling (pp 7 - 8) of the actual conditions that exist in the fish canning industry to determine the problem areas. Information gained from such a study would be useful to any foreign expert in coming to grips with problems in other product lines

APPENDIX A

Inspection Agencies

Fisheries Inspection

The ROK Central Fisheries Inspection Station at Seoul has 6 branches and 8 substations at major fishing centers in Korea with a staff of 80 people. There are still important fishing centers, e.g. Cheju, Sokcho, Mukho et al without any analytical facilities whatever. Considering that some 300,000 MT/yr (1964) of fish products are inspected every year, the station's complaint that staff is inadequate seems justified.

Continuous inspection is maintained only at the largest canneries and at the freezing plants.

Something like 20 traveling inspectors operate in the field (on a per diem of ₩2000/mo. i.e. less than 50¢/day). The rest of the staff is made up of laboratory technicians, in residence branch inspectors and office staff. They need equipment for bacteriological tests. Putrefaction is currently checked visually or by straight chemical analysis. Also, they do not have staff or equipment to test cans or can liners nor has this critical responsibility been assigned to any other organization. This is left entirely to the can manufacturer. Neither is anyone responsible for systematic testing of the shelf life of canned fish nor are these tests made anywhere in Korea so far as could be ascertained.

In fact, it does not appear that testing of fish after being processed into cans at the cannery is performed at all. No attempt is made to supervise the packing and sealing of the cans into cartons or boxes for export shipping.

Items such as dried fish (dried cuttle fish is a major export) are produced by such a welter of small operators under such a variety of conditions that any kind of control is difficult. Whatever producer cooperation exists is completely compartmented, e.g. the can manufacturers and the canneries each have an association, but mostly out of touch with each other. The canners seem to act as a kind of cooperative force among the fisherman, completely in their own interest, of course.

Only one man in the central Laboratory in Seoul, the assistant chief, has been trained abroad.

Agricultural Product Inspection

The government controlled National Agricultural Products Inspection Office in Seoul is the largest of the agencies visited. With 6 branches and over 1000 employees they still face problems very similar to the fisheries group, i.e. poorly paid inspectors, especially in the field, spread too thin to properly cover the more than 40 items for which they are responsible, including such major export categories as tobacco, fruit, grains, peppermint oil & menthol. They claim to need another 250 - 300 people to cover the field and additional lab space and equipment. Like fisheries, they also have no bacteriological analysis facilities, no inspection in the can after canning and no shelf life tests. Only one man here has been trained abroad.

In spite of all this, the Inspection Office insists that their inspection of fresh and dried fruits and fruits for canning (all for export) is so good that Taiwan and Japan accept them without further inspection. The canning problem, however, is exactly the same as in fish products, including disorganized producers and completely self centered (in fact, the same) associations for making cans and canning.

Bristles, Hair and Fur Inspection

The Korean Bristle Processor's Cooperative is a privately owned and operated inspection facility of 25 producers exporting \$3 - 4 million in hog bristles and human hair each year. Value of product depends mostly on #1 competitor, Red China, and the volume she dumps on the market each year. U S purchases (about 50% of Korea's output, 50% to Europe) are a stabilizing factor in that U S does not buy from China.

Export of Kolinsky skins (\$250,000/yr.) is the only item in furs that seems worth noting. They are not dressed here and apparently receive little attention as far as inspection is concerned.

The co-op. claims to have few problems other than trying to anticipate what China will do each year and resisting new producers in an area they claim is saturated by the present 25 members. Their grading and inspection system appears to be efficient and adequate to the need.

Raw Silk Inspection

The National Silk Conditioning House, Seoul is a completely government controlled facility which inspects all the raw silk yarn produced in Korea for export. In 1963 this was \$4.7 million and in 1964 will probably reach \$5 million.

The laboratory is completely equipped and staffed to inspect raw silk according to the 6 grades recognized on the world market. Note that not just samples, but rather all the raw silk that is exported goes thru this inspection to be packed and sealed for shipment at the lab.

The producers are organized into a private cooperative which provides help all the way through from the village level with ROK Government assistance, in quality control, training programs, etc.

Textiles Inspection

Korea Textile Inspection and Testing Institute in Seoul inspects the cotton yarn and cotton piece goods exported from Korea. This differs from the raw silk inspection in several ways. Inspection, testing, grading, packing and sealing is done at the textile plant by Institute inspectors with samples sent back to the Seoul Lab. Some other textiles e.g. carded (not worsted) woolens are inspected at the producers request.

This facility began as a privately owned and operated producers cooperative, but now claims to be entirely supported by inspection and testing fees and therefore "independent" in its decisions. They complain of short staff and facilities. A recently acquired tensile strength tester permits them to make a widely required test for the first time. In contrast, the director pointed out that Japan has 10 privately operated and several government labs. in the same testing area. Here, only 6 lab technicians check thousands of samples through an intricate battery of tests for an industry which still does not make preshrunk items at all and finds even color fastness a recurring problem.

None of the staff of 19 has been trained overseas. Many textile plant personnel have had AID participant training but the inspection group seems to have been completely overlooked. ✓

Handicrafts Inspection

The Federation of Korean Handicraft Cooperative Associations is another privately owned and operated inspection and testing facility. The need is surprisingly complex and, the facility unfortunately inadequate. They have no real testing laboratory as such. Chemical tests, e.g. for alkali content of glass beads (a factor in paint retention), are run at NIRI. Hardness and finish (in lacquerwares), moisture content (wood products), alloying strength (metal wares), etc. are performed

in the field with portable instruments probably never recalibrated for accuracy. The "cottage industry quality control problem" is probably greatest here and each item must be checked, packed and sealed for shipment. An obviously interested and conscientious staff just does not have the tools or men to do the job

Minerals Inspection

The Mining Association of Korea in Seoul is a private Mine owners' cooperative testing and assay laboratory which seems to serve admirably the purpose for which it was set up. Export minerals, ores and concentrates are checked according to accepted techniques

Other Inspection Agencies

The National Federation of Forestry Associations (dried fungus), Brewing Experiment Station (beer, rice wine and spirits, ginseng wine), the National Institute of Health (ginseng products other than wine) and the National Animal Quarantine (biological, biochemical tests and quarantine and disease tests for cattle, hogs, hog bristle, human hair, hides, animal bones, chicken feathers and pets) are other less important inspection and/or test facilities, i.e. less important as to the export potential of the product or as to the inspection system as a clue to export quality volume and value. Two large breweries make quality beer that is widely sold locally to troops and might be considered for export if the price is right. The Quarantines' bacteriological testing represents a service that must be provided for other food products

Privately Owned Inspection Agencies

These agencies are not connected with government or with private (producers) associations or cooperatives. A total of ten are operating in Korea. Among these, nine are foreign inspection companies with branches in Korea, and only one is a Korean firm.

All but two do inspection of commodities for export, but none has testing facilities in Korea. They either send samples to Tokyo (which takes about 15 days) or utilize ROK government testing labs such as NIRI. They are

GESCO (General Superintendence Co., Geneva, Switz)
Handles export inspection of various commodities Registered with
Ministry of Transportation for inspection of commodities for export
shipping. Utilize local government laboratories.

UNITEST (Universal Testing and Superintendence Co., U.S)
Handles export inspection of minerals and other commodities.
Do not maintain lab in Korea, but their Tokyo facility has
testing lab. Also utilize local laboratories.

INTECO (International Inspection and Testing Corp. Tokyo & U S)
Robert W. Hunt Inc. Chicago
Both handle export inspections. Use Tokyo laboratory exclusively

P & B (Penniman & Browne, Baltimore, Md.)
Do not handle export inspection, but plan to start in January 1965

B V (Bureau Veritas, France)
Do not handle export inspection.

O M I C (Overseas Merchandise Inspection Co. Tokyo)
Handle export inspection. Utilize Tokyo laboratory for testing
samples.

U S C (United States Consultants, U S)
Handle export inspection of various commodities. Utilize NIRI
for testing samples

Korea Inspections Association, Seoul Korea
Korean inspection firm, handles export inspection. Utilize NIRI
for testing samples.

SHILSTONE (Shilstone Laboratory Testing Co Texas)
No information available.