
Development Economic Policy Reform Analysis Project

Final Report

**RESEARCH STUDY OF THE
QUALITY CONTROL SYSTEM IN EGYPT**

**VOLUME I: FINDINGS, CONCLUSIONS, AND
RECOMMENDATIONS**

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EXECUTIVE SUMMARY

SUMMARY AND RECOMMENDATIONS

The Government of Egypt (GOE) is firmly committed to the goal of increased incomes and employment for all Egyptians. To that end, the GOE has actively pursued a program of economic reform which has yielded substantial improvements in the macro-economic environment. Such macro stability, along with a strong commitment to private sector development, privatization of state-owned firms, and legal reforms concerning investment squarely aim to create a favorable business climate and thereby to increase investment and economic growth. But targeted growth on the order of 6% per year, which is needed to accommodate the current 2.2% population growth (3.4% labor force growth) and still raise per capita output and reduce unemployment, is considered unachievable without Egypt's integrating more fully into the global economy. The GOE has therefore begun a series of trade barrier reductions, including an abolition of most quantitative restrictions and significant reductions in tariffs, especially for certain key capital goods. Additionally, the stage is now set for significantly increased participation in the regional and global economy through the impending implementation of the European-Mediterranean Agreement (EMA) and Taba Agreement free trade areas, and through the GATT as a contracting member of the World Trade Organization (WTO).

Significant barriers to trade and investment, however, remain. In particular, the current Egyptian system of standards and technical regulations poses a substantial and unnecessary impediment to businesses, traders, and investors. This, in turn, certainly reduces employment growth, lowers per capita income, and reduces consumer welfare by providing basic consumer protection in an exceedingly costly way. Some of the economic costs attributable to the current system of quality control include:

- Direct and indirect additional costs to affected producers and traders of 5% to 90% according to industry, with the highest costs for food products and imported final consumer goods
- Exports decreased by at least an estimated 9% to 12%
- Consumer and producer welfare losses of more than 1% of GDP
- Reduced access to the regionally important Euro-Med market
- Decreased foreign and domestic investment
- Reduced product variety and availability
- Reduced access to best available technology
- Government resources expended on duplicative and unnecessary activities

Furthermore, the current system is largely inconsistent with the obligations of WTO and EMA membership. If the system continues to contravene the basic tenets of the Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPM) Agreements, then the opportunity to participate in the dynamic world economy will be greatly impaired.

So, it is clearly in the interest of the GOE to immediately review and reform the current system in order both to foster domestic prosperity and to meet international obligations.

This report aims to focus the debate concerning reform of the Egyptian system of standards and quality control. It reviews the role of standards in Egypt and the world and places Egypt's current system of standards into historical perspective. The report reviews the current regulatory quality control system, identifies major problem area and discusses these areas in detail and provides recommendations for their resolution. It also identifies and quantifies some of the economic costs of the current system both from the standpoint of conventional economic analysis and from the point of view of potential lost opportunity for integrating more closely with the Mediterranean regional market through a harmonization of standards. A section on the consistency of current GOE practices within its WTO commitments identifies the conflicts that currently exist between the Egyptian regulatory system of quality control and the requirements of the GATT. Finally, a series of future work activities are recommended that, along with the recommendations, can present a path forward for Egypt.

The report identifies four basic problems that exist within the current quality control system that make it very difficult for the system to work properly or to be in agreement with various international agreements. Specifically, these are:

- Quality standards are confused with safety standards;
- Multiple centers of overlapping and duplicative authority exist;
- There is a lack of transparency and due process.
- Compliance costs are high.

These problems have multiple consequences, including creation of inappropriate standards and technical regulations, which lead to the economic costs cited above and contribute to Egypt's reputation as a "high cost economy" in which to do business.

Quality Standards Confused with Safety Standards

A Government's role in establishing systems to ensure product integrity should properly focus on product safety and the prevention of fraud. This study confirmed that Egypt's complex and comprehensive system of product standards confuses quality with safety, focusing major resources on ensuring quality attributes that are normally the purview of buyers and sellers. This is most obvious in the food sector where physical characteristics of products such as size, shape, color and texture are frequently mandated. Mandating excessive composition elements, such as fat or sugar content also occurs with food. The problem extends to the manufactured goods sector where, for example, the amount of ink in a ball point pen and the length of matches are mandated requirements. This study estimates that well over half, perhaps as high as two-thirds to three

quarters, of Egypt's regulatory analytical capacity is devoted to quality testing.

Product shelf life is a subset of quality standards that cause difficulty in Egypt. Extensive shelf life standards are established by the GOE, primarily for food products. Penalties for shelf life violation are severe, involving heavy fines and imprisonment. A review of shelf life dates for selected products that are similar in nature, show many dates to be inconsistent. While shelf life dates are important, especially for sensitive products subject to spoilage and deterioration, the determination of shelf life is better left to the manufacturer with government oversight to ensure implementation.

Confusing quality standards with safety can actually lower product safety by diverting resources to quality that would otherwise be applied to safety and lower quality by restricting the variety of products that are available to consumers. Excessive quality standards also violate the TBT requirements of the GATT. Egypt needs to significantly reform in its system to focus its regulatory standards on safety and the true prevention of economic cheat.

Multiple Centers of Authority

Egypt maintains a cumbersome and costly regulatory system that more often than not involves multiple governmental agencies ensuring the safety and wholesomeness of the same product. The report reviews this area in depth, but key problem areas include the following:

- Multiple regulatory agencies inspecting product. Up to five different agencies are involved and can independently inspect and test a single product.
- A daunting import process. At least 30 different steps and multiple agencies are involved in the import process. For food products up to four different agencies can independently inspect, sample and test a product. All agencies must agree on the acceptance of the product, otherwise the product is rejected.
- Excessive clearance times. Normal clearance time is currently 21-30 days, significantly in excess of times required in other countries. Rejection of product (a common occurrence) can lead to lengthy appeals, extending clearance time by a factor of 2 to 4.
- Inspection and testing of every consignment. Inspection frequency is not based on the international norm of using the compliance history of a product, importer, exporter and shipper.
- Difficult product classification. Because every product must have a standard, and because existing EOS standards cover only a portion of modern products (particularly for food), difficulties arise in how to classify some of them. While international norms can be, and are used, standards are often created at the port based on proprietary manufacturers specifications. Difficulties frequently arise associated with new technology and differences of opinions among agencies as to how to classify a product.

- Inadequate laboratories. Because the focus of testing is on product quality, inadequate laboratory instrumentation and technical expertise exists for important safety testing.
- Unnecessary product registrations. Certain products such as calorie reduced foods and bottled water, commonly consumed by the general population in other countries, are classified as special health foods in Egypt and require an unnecessary and time consuming additional registration.
- Inspection coordination problems and delays. Inspection by single individuals does not occur in Egypt; inspections are carried out by a Technical Committees consisting of three individuals.

Transparency and Due Process

Transparency and due process relating to the Q/C system are essentially non-existent in Egypt. Importers, exporters and domestic manufacturers have little or no knowledge in advance of new laws or decrees and have no avenue of appeal. There is no advance notice of proposed rule-making, no comment period (written or hearing), no established implementation dates and no appeal process. Substantial improvement is recommended in this area.

Compliance Costs

The current system of Egyptian standards and product safety entails costs of compliance that are abnormally high by international standards and imposes many unnecessary costs on consumers and on the business community. These excessively high costs--reported at between 5% and 90% depending on the industry--result from laboratory deficiencies which limit testing capabilities, port delays due to excessive or unnecessary sampling and testing, unnecessarily rejected products, product loss due to excessive sampling, multiple fees paid for duplicative or unnecessary procedures, and informal payments.

Economic Impact of the Current System

A sample survey of 33 producers and traders was conducted and the results systematically compiled.

- Over half of the firms encountered problems or delays in securing raw materials due to Government product standards or technical regulations.
- Fewer than 1/4 of the firms said they could comply and did with Egyptian standards and technical regulations.
- About 3/4 of the firms encountered business difficulties in attempting to comply with the existing system of standards and technical regulations.

Ironically, most of the firms were well aware of the importance of quality and utilized

Total Quality Management (TQM) practices within the firm.

The report also attempts some preliminary estimates of the economy-wide impact of the current quality control system based on the cost estimates reported in the survey and field interviews. The cost impacts were reported as largest for food related and consumer goods producers and traders, and smallest to zero for industrial products and pharmaceuticals producers. Based on these data and some secondary sources, the current system was found to raise costs by between 5% and 90% for effected users. Using World Bank estimates that about 25% of Egyptian tariff lines are subjected to some form of mandatory "quality control," were made estimates of the magnitudes of some of the economy-wide impacts. These are reported at the beginning of this summary along with some of the other costs identified but harder to quantify.

Recommendations

The findings of this study resulted in the formation of nineteen (19) recommendations relating to the improvement of the Egyptian regulatory quality control system, as follows:

1. ELEVATE THE EXISTING PRIME MINISTERIAL COMMITTEE ON STANDARDS AND QUALITY CONTROL AUTHORIZED BY DECREE NO. 1193/1996 INTO A STANDING COMMITTEE WITH DEFINED POWERS AND AUTHORITY.

TIMEFRAME: BY 15 JULY 1996.

2. UNDERTAKE A COMPREHENSIVE REVIEW OF LAWS AND DECREES RELATING TO THE IMPLEMENTATION OF QUALITY CONTROL FOR BOTH FOOD, AGRICULTURE AND MANUFACTURED GOODS. REVISE CURRENT LAW, DECREES AND TECHNICAL SPECIFICATIONS AS APPROPRIATE.

TIMEFRAME: INITIATE REVIEW BY 1 JANUARY 1997. TARGET COMPLETION OF REVIEW AND REVISION BY 1 JANUARY 1999.

3. ESTABLISH A SINGLE AUTHORITY FOR THE INSPECTION AND TESTING OF AN IMPORTED PRODUCT. FOCUS TESTING ON ENSURING PRODUCT SAFETY.

TIMEFRAME: BY 1 JANUARY 1997.

Comment: There is more than one model to accomplish this recommendation. For example, a single agency can be assigned the responsibility for import inspection and testing a commodity type. Alternatively, a single "umbrella" agency can have responsibility for the inspection and testing of all imported products.

4. IMPLEMENT "COMPLIANCE HISTORY" AS THE BASIS FOR THE FREQUENCY

OF SAMPLING AND TESTING OF IMPORTED PRODUCTS.

TIMEFRAME: BY 1 JANUARY 1997.

5. ACCEPT AND UTILIZE THE CODEX ALIMENTARIUS DOCUMENT “*PROPOSED DRAFT GUIDELINES FOR THE DESIGN, OPERATION, ASSESSMENT AND ACCREDITATION OF FOOD IMPORT AND EXPORT INSPECTION AND CERTIFICATION SYSTEMS*” AS THE GUIDANCE DOCUMENT FOR REVISIONS TO THE IMPORT CONTROL SYSTEMS FOR FOOD PRODUCTS.

TIMEFRAME: BY 15 JULY 1996.

6. ASSESS THE USE OF QUALITY STANDARDS AS REGULATORY REQUIREMENTS FOR PRODUCTS WITH THE OBJECTIVE OF DISCONTINUING THEIR REGULATORY USE TO THE MAXIMUM EXTENT POSSIBLE.

TIMEFRAME: DEVELOP A PLAN OF WORK FOR REVIEW OF ALL STANDARDS BY COMMODITY SECTOR BY 1 SEPTEMBER 1996.

INITIATE STANDARDS REVIEW BY 1 JANUARY 1997 WITH REVISION OF ALL STANDARDS BY 31 DECEMBER 1998.

7. RECOGNIZE INTERNATIONAL STANDARDS CERTIFICATION FOR NON-FOOD IMPORTS AND REDUCE INSPECTION LEVELS TO MINIMUM SPOT CHECKS.

TIMEFRAME: BY 1 SEPTEMBER 1996.

8. REPLACE MANDATORY SHELF LIFE DATES FOR SENSITIVE PRODUCTS WITH MANUFACTURER'S RECOMMENDED SHELF LIFE SUPPORTED WITH APPROPRIATE SCIENTIFIC DATA. REASSESS PENALTIES FOR SHELF LIFE VIOLATIONS.

TIMEFRAME: BY 1 SEPTEMBER 1996.

9. ESTABLISH DUE PROCESS AND TRANSPARENCY IN THE DEVELOPMENT AND PROMULGATION OF QUALITY CONTROL REGULATIONS. THIS PROCESS TO INCLUDE:

- ADVANCED NOTICE OF PROPOSED RULE-MAKING.
- OPPORTUNITY FOR PUBLIC COMMENT.
- ESTABLISHED AND KNOWN IMPLEMENTATION DATES.
- MANDATORY ECONOMIC IMPACT STATEMENTS.
- AN APPEAL PROCESS.

TIMEFRAME: BY 1 SEPTEMBER 1997.

10. ESTABLISH THE EGYPTIAN ORGANIZATION FOR STANDARDIZATION AND QUALITY CONTROL (EOS) AS A VOLUNTARY STANDARDS INSTITUTE WITH RESPONSIBILITIES FOR:
- SECRETARIAT FOR INTERNATIONAL STANDARDS ORGANIZATIONS.
 - DEVELOPMENT OF VOLUNTARY EGYPTIAN PRODUCT STANDARDS.
 - IMPLEMENTATION OF THE EGYPTIAN QUALITY MARK PROGRAM.
 - COORDINATING QUALITY ENHANCEMENT TRAINING AND TECHNOLOGY DEVELOPMENT PROGRAMS.
 - PROVIDING PRIVATE LABORATORY ACCREDITATION SERVICES.

TIMEFRAME: BY 1 SEPTEMBER 1997.

11. RESTRUCTURE THE GENERAL ORGANIZATION FOR IMPORT AND EXPORT CONTROL (GOEIC) WITH RESPONSIBILITY FOR:
- REGULATORY AUTHORITY FOR ENSURING THE SAFETY OF MANUFACTURED (NON-FOOD) PRODUCTS.
 - PROVIDING GUIDANCE AND ASSISTANCE TO IMPORTERS AND EXPORTERS TO ASSURE THEIR PRODUCTS MEET IMPORT AND EXPORT REQUIREMENTS.
 - ASSISTING EGYPTIAN MANUFACTURERS TO OBTAIN VOLUNTARY QUALITY STANDARDS LEVELS FOR DOMESTIC PRODUCED AND SOLD PRODUCTS.

TIMEFRAME: BY 1 SEPTEMBER 1997.

12. GIVE THE MINISTRY OF HEALTH FOOD CONTROL DIVISION THE SOLE AUTHORITY FOR THE INSPECTION OF IMPORTED FRESH AND PROCESSED FOODS (INCLUDING MEAT, POULTRY, DAIRY AND SEAFOOD) EXCEPT FOR THE FOLLOWING:
- VETERINARY INSPECTION OF MEAT AND POULTRY (TO BE RETAINED BY MOA VETERINARY MEDICAL SERVICES);
 - PLANT PEST AND DISEASE INSPECTION OF FRESH AGRICULTURE COMMODITIES (TO BE RETAINED BY MOA PPQ);
 - INSPECTION OF GRAIN AND RELATED PRODUCTS (TO BE RETAINED BY MOA).

TIME FRAME: BY 1 JANUARY 1997.

13. DISCONTINUE THE INSPECTION (EXCEPT VETERINARY ANIMAL HEALTH INSPECTIONS) AND ANALYTICAL TESTING OF IMPORTED MEAT AND POULTRY (INCLUDING ALL FRESH AND FROZEN MEAT AND MEAT CUTS,

AND FROZEN POULTRY), SEAFOOD AND DAIRY PRODUCTS BY THE MINISTRY OF AGRICULTURE VETERINARY MEDICAL SERVICES AND TRANSFER these DUTIES TO THE MOH FOOD CONTROL DIVISION.

TIME FRAME: BY 1 JANUARY 1997

14. DISCONTINUE REGISTRATION AND ANALYSIS OF CERTAIN FOODS BY THE NUTRITION INSTITUTE.

TIMEFRAME: BY 1 JANUARY 1997.

15. ENHANCE MOH FOOD CONTROL DIVISION TESTING LABORATORIES AND INSPECTION SERVICES.

TIMEFRAME: BY 31 DECEMBER 1997.

16. REVIEW THE NEED FOR THE MOH IMPORT TECHNICAL REVIEW COMMITTEE WITH A VIEW TOWARDS DISCONTINUING IT.

TIMEFRAME: BY 31 DECEMBER 1997.

17. INCREASE COMPUTERIZATION OF IMPORT ADMINISTRATIVE PROCESSES.

TIMEFRAME: BY 31 DECEMBER 1999.

18. CONSIDER IMPLEMENTATION OF A "ONE STOP SHOP" IMPORT FACILITY AT MAJOR PORTS.

TIMEFRAME: BY 1 MARCH 1997 (DETERMINATION OF FEASIBILITY).

19. ELIMINATE MEAT FAT LEVEL AS A PREREQUISITE FOR IMPORT.

TIMEFRAME: BY 15 JULY 1996.

Future Work

An excellent and unique opportunity currently exists within Egypt for improving trade and Egypt's economy and well being that should not be missed. Senior government officials have expressed a willingness to change the current system. Egypt's commitment to the WTO through its signing of the GATT, and Egypt's participation in Regional Free Trade Agreements provide the legal incentive for change.

Based on the findings and recommendations presented in this report, the Technical Team notes five areas where future work in association with the Government of Egypt will be beneficial in furthering the goal of meaningful revision to the country's quality control system. We hope that action by the Government of Egypt will be taken immediately to implement the above noted recommendations and to undertake the future work listed below. Following review and acceptance of this report, it is suggested that a workshop be scheduled no later than October 1996 to develop an implementation plan, including specific work tasks, relative to these recommendations. Technical assistance to undertake these work items can be appropriate based on GOE commitment to reform. Future work tasks are listed below. Implementation detail for each task is presented in Section 7.0 of the report.

- Streamline the Inspection System.
- Upgrade Regulatory Food Laboratories and Inspection Programs.
- Review All EOS Standards.
- Implement Initial Reforms in Transparency and Due Process.
- Assist in the Review of the Organization Structure, Legal Framework, and Regulatory Programs Relating to Quality Control.

Preface

This study was commissioned as a service of the USAID/Egypt-funded Development Economic Policy Reform Analysis (DEPRA) Project. The DEPRA Project provides technical assistance and services to the Government of Egypt's Ministry of Economy and International Cooperation(MOIEC) to enhance the capability of the MOIEC to advocate more effectively for macroeconomic reforms through the provision of more credible, cogent decision support economic and statistical analysis and recommendations. The DEPRA Project provides assistance to the MOIEC in three modes: specialized expertise for economic studies and analysis; training in statistical and economic analysis; and provision of physical infrastructure to support statistical gathering and analytical functions.

The conclusions, opinions and recommendations expressed in this report are those of the authors and do not necessarily reflect those of USAID, the U.S. Government, the Government of Egypt, or of its various Ministries.

1.0 INTRODUCTION

The Government of Egypt (GOE) is firmly committed to the goal of increased incomes and employment for all Egyptians. To that end, the GOE has actively pursued a program of economic reform which has yielded substantial improvements in the macro-economic environment. Such macro stability, along with a strong commitment to private sector development, privatization of state-owned firms, and legal reforms concerning investment, squarely aims to create a favorable business climate and thereby to increase investment and economic growth. But targeted growth on the order of 6% per year, which is needed to accommodate the current 2.2% population growth and still raise per capita output and reduce unemployment, is considered unachievable without Egypt's integrating more fully into the global economy. The GOE has therefore begun a series of trade barrier reductions, including an abolition of most quantitative restrictions and significantly reductions in tariffs, especially for certain key capital goods. Additionally, the stage is now set for significant increased participation in the regional and global economy through the impending implementation of the European-Mediterranean Agreement (EMA) and Taba Agreement free trade areas, and as a contracting member of the World Trade Organization (WTO).

Significant barriers to trade and investment, however, remain. In particular, the current Egyptian system of standards and technical regulations poses a substantial and unnecessary impediment to businesses, traders, and investors. This, in turn, certainly reduces employment growth, lowers per capita income, and reduces consumer welfare by providing basic consumer protection in an exceedingly costly way. Furthermore, the current system is largely inconsistent with the obligations of WTO and EMA membership. If the system continues to contravene the basic tenets of the Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPM) Agreements, then the opportunity to participate in the dynamic world economy will be greatly impaired. So, it is clearly in the interest of the GOE to immediately review the current system in order both to foster domestic prosperity and to meet international obligations.

This report aims to focus the debate concerning reform of the Egyptian system of standards and quality control. The next section sets the current debate in some historical context and briefly recounts the role of standards in facilitating trade and investment while legitimately protecting the health and safety of the Egyptian consumer. This section also reviews the guidelines for implementing a system of standards and technical regulations consistent with the GOE's international obligations as a member of the WTO and impending member of the EMA and the Taba Agreement. This section concludes with a summary of the analytical findings that pinpoints four concrete problems of the current system which render it unnecessarily destructive to economic growth and inconsistent with Egypt's international aspirations and obligations. Section 3 explains how the current Egyptian system of standards and quality control is designed and how it in fact functions. This section, based on assorted documents, numerous on-sight visits, and extensive accounts by participants in the system, aims especially to pinpoint where the system works and where it does not work. Section 4 then explains more generally how the current system unnecessarily discourages trade and investment in Egypt and attempts to quantify the extent of negative impact. Section 5 addresses the incompatibility of the current Egyptian

standards system with its GATT obligations. Finally, Section 6 offers a set of short-term and long-term recommendations to reconfigure the system, given the existing components.

2.0 THE ROLE OF STANDARDS IN EGYPT AND THE WORLD

2.1. Standards and Technical Regulations

Product standards and technical regulations play an important part in facilitating economic activity and ensuring the health and safety of consumers. In a market economy, sellers want to convince buyers to purchase products. Buyers, however, are cautious to the extent that not all of the characteristics of various products are easily observable. But such information has great economic value. Buyers of both final goods and intermediate goods want to know the extent to which the products are reliable, uniform, and safe to use. Such knowledge allows buyers and sellers to better match their needs and capabilities, and so facilitates trade and production. For example, automobile assemblers want to know about the reliability and uniformity of the products of various parts producers so that they can market a consistent product and gain consumer allegiance. Similarly, buyers of building materials may want particular, but hard to observe, tolerances for supplies; and buyers of bottled drinking water may want to know how safe the water is to drink. As a rule, more reliable, more uniform, and safer products cost more to produce, but can command higher prices in the market as well as bolster market share. Consequently, producers and traders try to convey credible information about products or production processes to buyers. Claims about a product's characteristics may gain credibility through reputation, performance warranties, money-back guarantees, and, with increasing importance, common product standards developed and underwritten by widely recognized expert authorities.

The widespread adoption of a common standard has proven to be an immense source of economic growth and consumer welfare. For example, interchangeable parts, common electrical codes, commonly accepted grading of assorted products, and so on, have become the backbone of any modern industrial economy. Similarly, norms of safety have been developed which, when adhered to, save the consumer the potentially tremendous cost of trying to discover which products are safe to use or to ingest. Because credible standards have so much economic value, their creation and adoption have become an integral part of the market process and market participants have developed and voluntarily gravitated to the common language of standards. Since common standards have value to both parties in a market trade, both buyers and sellers typically adhere voluntarily to various standards when it is appropriate for them to do so. For some products, however, especially food, the scientific information is sufficiently subtle to interpret that governments often make mandatory compliance with rules regarding particular characteristics of the products to ensure the public health and welfare.

While governments sometimes create and enforce mandatory standards or product specifications, especially where health or safety is an issue and product characteristics are difficult to observe or interpret, as a rule compliance to a standard is best left voluntary. This is because where the standard only speaks to the quality of a product -- uniformity, reliability, and so on -- the issue is solely between the buyer and the seller. Indeed, any mandatory standard would impose

restrictions on product choice and production techniques at some, possibly quite substantial, economic costs. Also, any attempt to enforce minimum quality standards hurts especially the poorest in society who may demand a lower quality product at the accompanying lower price. Minimum quality standards or product specifications also create the need for monitoring compliance, which comes at a cost and invites fraud.

PRODUCING TO STANDARDS IS THE KEY TO EXPORT MARKETS

Germany's Volkswagen Group (VW) has decided to study the prospect of sourcing from Egypt some ten components to its main assembly plants in Europe and elsewhere. The local purchasing office will be involved in channeling extra investment into those components plants selected to become part of VW's global sourcing network, and will deal with licensing agreements and **quality control**.

According to the VW vice-chairman and head of production and global sourcing, "Suppliers in Egypt can fight for the total volume of supplies to our corporation--a market worth DM 47,000 million (US\$ 31,000 million) a year." (Reported in The Egyptian Gazette, June 24, 1996.

2.2. Standards in the World Economy

Since common standards have the most value when adopted in the largest possible market, standards are rapidly becoming compatible worldwide. This is especially beneficial to firms operating in the international market, where cultural or language differences can raise the cost of product information, and to new firms or firms penetrating new markets wherein the firm does not have a proven record. Commonly adhered to standards include those associated with ISO, BS, ANS, DIN, JIS, NF, CEN, and, for food, CODEX. The European nations in particular are moving rapidly toward a harmonized system of standards through the Committee on Standards (CEN).

While the common language of standards can be extremely useful for buyers and sellers, there is also a potential for abuse. Standards or conformity assessment procedures which explicitly or implicitly discriminate in favor of domestic industry and against foreign competition represent a non-tariff trade barrier. Accordingly, rules have been embodied into the GATT and various regional free trade agreements which proscribe an appropriate and internationally accepted framework for any system of standards and technical regulations.

While wording can differ, the hallmark of a GATT compatible system of standards and regulations is that the system be based on good science, be transparent, and provide for national treatment to all market participants. Also, there is some agreement that it would be advantageous for members to move toward recognition and acceptance of common international standards and to work toward a commonly accepted certification of laboratories.

Three international agreements are particularly relevant for Egypt:

GATT Agreements

With respect to health and safety, the Agreement on the Application of Sanitary and Phytosanitary Measures (SPM) concerns the application of food safety and animal and plant health regulations. While recognizing the rights of governments to protect the health and safety of consumers, the Agreement stipulates that measure taken must be based on good science, applied only to the extent necessary to protect human and animal or plant life or health, and should not arbitrarily or unjustifiably discriminate between members where similar conditions prevail. Also, members are encouraged to base their measures on international standards, guidelines, and recommendations where they exist. There are provisions on control, inspection, and approval procedures, and governments must provide advance notice of new or changed SPM changes.

The SPM Agreement complements the Agreement on Technical Barriers to Trade (TBT) which governs technical regulations and standards in member countries. This agreement seeks to ensure that technical regulations and standards, as well as testing and certification procedures, do not create unnecessary obstacles to trade. While members are allowed to pursue standards of protection, the Agreement encourages the use of international standards where these exist. There is also an agreed upon code of good practice which requires that procedures for determining the conformity of products with national standards be fair and equitable, especially between domestically produced goods and equivalent imported goods. The Agreement also encourages the mutual recognition of conformity assessments. In particular, if the authorities of the exporting country determine a product to be in conformity with a technical standard, the authorities of the importing country should normally accept that determination.

European-Mediterranean Agreement (EMA)

The Egyptian Government is currently negotiating a new "free trade" arrangement with the European Union that follows the strategic agreements reached at the Madrid Conference in 1994 that outlined an updated Mediterranean Policy for the Union and the countries of the region. The EMA in fact builds upon similar preferential trade and technical assistance programs which have been in place since the 1970's and have been the subject of additional financial protocols brought into place with the expansion of the Union during the 1980's.

The negotiation of the Egyptian EMA follows that of Tunisia [July 1995] and Morocco [October 1995] and is likely to reflect the pattern established by those agreements. The basic objectives of the EMA mechanism throughout the region are:

- To support economic growth and integration throughout the Mediterranean region
- To achieve free trade in manufactured goods between the EU and a signatory country
- To grant preferential access in agricultural products
- To liberalize trade in services and capital

A key difference between the current series of EMAs for the Mediterranean region and those previously negotiated is that the protocols that support financial and technical assistance transfers from the EU are no longer tied to individual countries. These resources will now be allocated and disbursed on activities either in each EMA country or regionally which support the objectives above.

As the current negotiations on the Egyptian EMA is thought to be on track for completion in the autumn of 1996, it may be important to scan the key elements thought likely to be incorporated to give effect to the objectives above:

1. Political dialogue
2. Free movement of goods and a gradual reduction of tariffs
3. Progress in clarifying the right to invest in manufacturing and in the supply of services on a equal basis
4. Defining the rules of competition, public procurement, and rules of origin
5. Spheres of economic, social, and financial cooperation

It is not thought that the EMA will address the specifics of harmonization of standards and the methods to reach mutual recognition of conformity assessment procedures. However, in discussions with both the Egyptian authorities and senior EU officials during the course of this study it was clearly noted that the effective functioning of the EMA will require substantial change to the current Egyptian system of standardization and quality control.

Taba Agreement

The Taba Ministerial Group is an extension of the efforts undertaken to support the peace process in the eastern Mediterranean region. The Taba Group consists of Egypt, Jordan, Israel, the Palestine Authority, and the United States of America. This group has authorized a series of concrete actions to strengthen regional cooperation in the areas of trade and commerce. One of these actions directly concerns standardization issues in that heads of relevant national organizations were asked to meet to discuss ways and means to promote harmonization of standards and procedures. This meeting was held in Cairo in early March 1996 and chaired by the president of the Egyptian Organization of Standards [EOS]. Participants agreed to undertake preliminary actions in such areas as:

- Harmonization Of Standards [pilot project]
- Mutual Recognition [pilot project]
- Information Exchange [establish information centers]
- Financial Resources [budget estimate for joint activities]

While this is a small step in developing closer regional cooperation in the area of standardization and conformity assessment, it is an important linkage for the relevant Egyptian officials to foster the concept of standardization as a means of trade facilitation and market access.

2.3. Egypt's System of Standards in Historical Perspective

Egypt's current system of standards and practices is tempered by a history of socialism and trade orientation toward the Eastern Block of the old Soviet Union. Following the revolution of 1952, the economy was realigned structurally. The state assumed ownership of the means of production and regulated prices. The public sector soon accounted for 75% of GDP and with increased centralized planning came directives as to what a certain product should look like and how it should perform. But, at the same time, foreign companies were nationalized and foreign investment virtually ceased. Consequently, many standards and regulations were being created without an eye to foreign markets or technology. With the thought of protecting consumers from shoddy or unsafe products, quality became a goal of government beyond simple health and safety issues, and authority to mandate quality standards or specifications was vested in several important ministries.

In the 1970s, in response to slower growth, the "Open Door" policy began with its more outward-looking orientation. Since the 1980s, the pace of economic reform has increased with an emphasis on privatization, reliance on markets, and increased foreign trade and investment. But as other trade barriers have come down, Egypt is left with the legacy of an outdated and isolated standards bureaucracy. Thus, there is a recognition of the need to change the system and to move it toward international norms of standards setting and conformity assessment.

In the analysis which follows, problems with the current system are documented and, to some extent, their negative ramifications for the Egyptian economy are quantified. The costs in terms of welfare, growth, investment, and trade are apparently substantial. Most of these costs can be traced back to four fundamental problems with the current system which need to change.

2.4. Summary of the Problems with the Current System

The current system of standards and quality control suffers from four fundamental, inter-related problems of design and implementation. The system does not serve well the purpose of a good standards system and so, even where compliance is only voluntary, there are real costs in not having a more coherent system in place. But, more seriously, since for many products compliance to standards and technical specifications is mandatory, the deficiencies of the current system contribute substantially to an unfriendly business and investment climate with the effect of retarding growth and international trade. Also, the system fails to satisfy Egypt's international obligations to the WTO in a number of respects that will also be problematic for membership in the Euro-Med free trade area and the Taba Agreement.

Problem I. Quality Standards Confused with Safety Standards

While protecting the health and safety of Egyptian consumers is a legitimate goal, the current system widely uses mandatory standards and technical specifications as a regulatory tool unrelated to safety. In particular, there are many unnecessary, but mandatory, requirements for products with respect to compositional standards, shelf life, labeling, and manufactured product specifications.

Consequences:

- International trade and investment restricted.
- Product variety and availability reduced.
- Product quality lowered.
- Uncertainty increased for producers, consumers, and traders.
- Government resources diverted to unnecessary activities
- Inconsistent with TBT and SPM Agreement of the GATT.

Problem II. Multiple Centers of Authority

Formulating and monitoring standards is central to any system of standards and will involve testing and compliance issues. The current Egyptian system, however, empowers too many overlapping government agencies for interpreting, monitoring, and testing at a substantial cost to producers, consumers, traders, and the government. In particular, multiple agencies can effectively create mandatory standards and technical regulations. Also, product registration and clearance requires dealing with too many agencies.

Consequences:

- International trade and investment restricted by delays.
- Transactions costs of doing business increased substantially.
- Uncertainty increased for producers, consumers, and traders.
- Government resources expended on unnecessary and duplicative activities.

Problem III. Lack of Transparency and Due Process

Any beneficial system of standards requires that the standards themselves are formulated by producers and consumers in an open forum. The current Egyptian process of standards or technical specification creation and of rules mandating reflects government domination by anonymous officials. This results in standards, for which compliance is often mandatory, which are unclear and often do not conform to any international standard. Also, assessment procedures are often unclear, standards can be arbitrarily created at the port, and there is confusion in matching standards with products. Furthermore, there is no "due process" in rules making. There is effectively no advanced notice of proposed rules, no opportunity for public comment, no specified implementation date even for mandatory product specifications, and no public appeals process. As a rule, there is very limited or no public input into the standards setting process.

Consequences:

- Inappropriate standards and technical regulations created.
- Product variety and availability reduced.
- Product quality lowered.
- Product registration and clearance delayed.

- Uncertainty created for producers, consumers, and traders.
- Inconsistent with TBT and SPM Agreements of the GATT.

Problem IV. High Compliance Costs

While any system of standards and product safety entails costs of compliance, the current Egyptian system results in quite high and unnecessary costs which contribute substantially to Egypt's reputation as a "high cost economy." The excessively high compliance costs result from laboratory deficiencies which limit testing capabilities, port delays due to excessive or unnecessary sampling and testing, unnecessarily rejected products, product loss due to excessive sampling, time required to resolve difficulties, multiple fees paid for duplicative or unnecessary procedures, and informal payments.

Consequences:

- Costs to producers, consumers, and traders increased substantially.
- International trade and investment restricted.
- Product variety and availability reduced.
- Uncertainty increased for producers, consumers, and traders.
- Government resources expended unnecessarily.
- Inconsistent with TBT and SPM Agreements of the GATT.

3.0 REVIEW OF THE CURRENT SYSTEM

The current system of standards and quality control is a complex maze of overlapping authority. In Egypt, every product has a standard. Either the standard is uniquely Egyptian (3250 products) or one of the international standards of the ISO, BS, ANS, DIN, JIS, or NF (Decree 42/1994). Another 500 standards are currently being prepared or revised. The governmental bodies with direct control over the creation and enforcement of standards include the MOI, the MOS, the MOH, and the MOA. The Atomic Energy Organization also has some inspection responsibility for food products and the Ministry of Research and Science has recently shown an interest in participating more actively in the standards system.

In this section we review how Egyptian product standards are officially created and used. We begin with a discussion of the recognized standards body, the EOS, and then explain the system as applied to manufactured, processed food, and agricultural products.

3.1. The EOS

The Egyptian Organization for Standardization and Quality Control (EOS) was established in 1957 and reorganized with its current name in 1979. It is under the jurisdiction of the Ministry of Industry and Mineral Wealth (MOI). The EOS is the national standardization body and is the sole authority for elaboration of Egyptian national standards for industrial products, testing and measurement equipment, and methods of testing and inspection. The EOS also has responsibility for testing and inspection of materials and products, certification of products (EOS issues

conformity marks and quality marks.), technical consultation and training concerning standardization, and liaison with international, regional, and foreign corresponding organizations.

Specifically, the EOS is authorized to develop, adopt, and publish standards and codes of practice as Egyptian standards. It can also amend or revoke such standards or codes by notification in the government gazette. The EOS purports to operate in accordance with internationally recognized systems and principles. The EOS coordinates the standards program with concerned parties and carries out a yearly work plan through more than 90 technical committees. Each technical committee includes 10 to 15 representatives including producers, consumers, academics, and relevant government personnel. The EOS thus serves as a secretariat of sorts with about 80 staff carrying out the technical secretariat work of the committees.

The EOS has about 600 staff members including a number of laboratory analysts. Besides offices in the MOI, there is a large laboratory in suburban Cairo. The organization is administered through a council of 23 members from a cross-section of public companies, ministries, and public institutions. Figure 3.1.1 provides the EOS organizational chart.

Creation of EOS Voluntary Standards

The process to develop an EOS standard is the following:

The EOS requests at the end of each year by circular letter from all appropriate Ministries and other interested parties (including trade associations and "unions of industries") proposed new standards or revisions to existing standards that are needed or desired.

A written plan of work is developed and approved by the council.

The proposed new standards or revisions to existing standards are assigned to the various EOS technical committees. Each technical committee is made up of representatives of appropriate government agencies (i.e., MOH and MOA for food), academia, and, for the past three years, private sector individuals. (Past membership excluded the private sector.)

A draft standard is prepared by consensus using international norms as a reference (most commonly used are ISO, Codex, EN, standards, or standards from the US, the UK, France, Germany, and Japan).

The draft standard is circulated to the same groups involved in requesting or revising standards and a final draft standard is prepared based upon comments received.

The draft standard is submitted to the EOS and, if approved, the minutes of the meeting are signed by the Minister of Industry and Mineral Wealth, whereby the standard becomes a voluntary Egyptian Standard.

An importer can request and obtain a new or revised standard by working through the

above process.

3.2. Creation of Mandatory Standards and Regulations

Officially, Egyptian standards are voluntary except for those related to "public health, safety, and consumer protection" (EOS, 1996). A standard is made mandatory by a ministerial decree issued by the MOI mandating the relevant standard. The EOS counts 433 such decrees, although the number of products covered is around 600. An EOS standard may also be made mandatory by Ministerial Decree by other agencies. However, as a practical matter, there are other channels through which standards and elements of the standards are effectively rendered mandatory. Through a series of mandatory technical specifications and regulations embodied in ministerial decrees from not just MOI, but MOS, MOA, and MOH as well, product coverage by mandatory standards has practically been extended to a vast array of goods. The World Bank, for example, counts 1,550 tariff lines or 25% of the tariff schedule being subjected to "quality control," of which about half are foodstuffs. Also, the lists of products covered do not always coincide. For example, the lists of covered products reported by Customs in Annex 8 and by the EOS in the publication Mandatory Standards were different as given to the Technical Team. These mandatory standards and specifications, furthermore, go well beyond conventional norms of consumer protection and, when enforced, are the source of considerable economic welfare costs.

Since the input into the standards creation process varies by product, we will discuss separately the creation of standards for manufactured, processed food, and agricultural products.

3.2.1. Food and Agriculture Commodities

3.2.1.1. Agencies Involved

Three primary ministries are involved in the establishment of regulatory standards and technical specifications in Egypt for food and agricultural products. These are: the Ministry of Supply and Foreign Trade through the Egyptian Organization for Standardization (EOS); the Ministry of Health (MOH) through a) the Food Control Department (FCD) (through the First Undersecretary for Communicable Diseases) and, b) the Nutrition Institute (NI); and the Ministry of Agriculture through three general organizations; Veterinary Medical Services (VMS), Plant Protection and Quarantine (PPQ), and the Central Laboratory for Food and Feed (CLFF). Additionally, two other organizations, the General Organization (sometimes termed Authority) for Import and Export Control (GOEIC) and Atomic Energy Organization (AEO) also apply standards for the control of food and agriculture products. Refer to the following figures for the organization of above the Ministries and subsidiary organizations: Figures 3.2.1.1 A and 3.2.1.1 B, Ministry of Health and its Food Control Department; Figure 3.2.1.1 C, Ministry of Agriculture PPQ; Figure 3.2.1.1 D, Ministry of Agriculture Veterinary Medical Services; Figures 3.2.1.1.E and 3.2.1.1F, GOEIC Import and Export Control.

3.2.1.2. Standards and Technical Specifications

Control of food and agriculture products in Egypt is accomplished through a series of

product **standards** and **technical specifications**. These standards and technical specifications are made mandatory through implementing **laws** and **decrees** (the equivalent of regulations).

As noted above, the EOS has the clear and sole authority to establish standards for food and agricultural (as well as other) products. Section 3.1 above outlines the process by which EOS establishes standards. Coordination between Ministries for the establishment of standards lies with the EOS. A product standard generally consists of a product description, general requirements and product specifications. A product standard is often broad, encompassing multiple individual products (for example tomato products encompassing tomato juice, sauce, paste, whole tomatoes and ketchup) in which individual product specifications are outlined in the specification section of the standard. Currently, Egyptian standards incorporate both quality and safety elements. The extent of quality versus safety elements depends upon the product; for frozen meat, safety is predominant; for fruit and vegetable products, quality appears to be predominant. Quality factors are often vague (appropriate color, size, shape, etc.). The quality elements also incorporate compositional requirements (for example, fat, moisture, protein, solids levels). Safety elements most often relate to permitted additives, maximum pesticide residues, and microbiological and contaminant levels. A product standard will also include product labeling and packaging requirements. Examples of product standard elements are given in Figure 3.2.1.2. Translated copies of certain standards are given in Appendix A.

As noted above in section 3.1, the EOS initially adopts product standards as voluntary standards. By action, either by Ministerial Decree by the Ministry of Industry and Mineral Wealth, acting on its own behalf or at the request of other agencies, or through Ministerial Decrees of the MOH or the MOA, EOS standards become mandatory, affecting all imported, exported, or domestic goods. Most often, Standards are made mandatory through Decrees issued by the Ministry of Industry and Mineral Wealth, often at the request of the MOH or the MOA. Importantly, by a separate Decree, GOEIC must accept and utilize all EOS standards as mandatory standards whether or not they are adopted by another Ministry.

Technical specifications are additional mandatory requirements that products must meet. Technical specifications are set by Decree directly by the Ministry involved and are applicable to individual products as specified. For food, the most common technical specifications are the following.

- Permitted food additives and preservatives; established by the Ministry of Health.
- Maximum pesticide residue levels (MRLs); established by the Ministry of Agriculture.
- Prohibited plant pests and diseases by commodity by export country; established by the Ministry of Agriculture.

Current permitted food additives and permitted MRLs for pesticides are given in Appendices B and C.

EOS product quality standards will reference the technical specifications of other agencies as appropriate. For example, the product standard will reference the MOH food additive list for food additives permitted in ketchup; the product standard for frozen standards will reference the pesticide residue MRL list for maximum permitted pesticide residues in the product.

3.2.1.3. Supplemental elements and International Norms

Occasionally, supplemental elements to product standards are developed which then can be subsequently incorporated into individual product standards as mandatory requirements by Decree. These supplemental elements can often have a major impact on trade. Probably the best example of this situation is the addition of product shelf life standards. It is the understanding of the technical team that GOEIC, in 1993, requested the EOS to undertake the establishment of shelf life requirements based on a concern that the same product (Ketchup for example) imported from different countries and by different manufacturers had different shelf lives. EOS established a special technical committee, sought international norms in this field (the only one found was that developed by the Saudi Arabian Standards Organization [SASSO]), reviewed products for which a shelf life was appropriate, considered Egyptian climatic and distribution/retail conditions, and established shelf life requirements for a multiplicity of products. These shelf lives were made mandatory by Ministerial Decree # 261, dated February, 1994 and updated in November, 1994. Subsequently, an additional Ministerial Decree has arbitrarily cut these shelf lives in half. A list of shelf lives for food products is given in Appendix D. Refer to section 3.3 and 3.4 for a discussion of the impact of shelf lives to food trade.

While official product standards and technical specifications cover many, if not most situations, they do not cover them all, particularly in the food and agriculture field. In cases where EOS standards or Ministerial technical specifications do not exist, ministries indicate that international norms apply. Specifically, product standards and technical specifications (i.e., permitted food additives, pesticide MRLs, micro-biological criteria) of the EU, the UK, Germany, France, the U.S., Japan and Codex and the ISO or IDF can be used. In practice, a very different situation often occurs as indicated in Section 3.3 below.

3.2.1.4. Standards Setting Process

The process of establishing mandatory product standards and technical specifications appears, on the surface, to be straightforward. It is a process, however, that is not transparent to the public and certainly does not have any due process associated with it, at least in terms by which due process is understood in the international community.

The establishment of a mandatory product standard or technical specification by a Ministry

usually begins with discussion within a specific Ministry as to the mandatory need for the mandatory standard or specification. Inter-agency discussion usually occurs, either by informal verbal means or by internal written memoranda. Proposed Ministerial Decrees are often circulated to other affected agencies for comment. No public input is requested or obtained. A decision to establish a standard or technical specification is made and a Ministerial Decree issued to that effect. The Decree is published in the *Official Gazette*. This is normally the first public notification of the new Standard or Technical Specification. There is no requirement for a pre-set waiting period prior to implementation. While 30, 60 and 90 day implementation periods are normal, an implementation period of one day has occurred. No appeal of a final Ministerial Decree is possible.

In addition to this process of establishing formal Ministerial Decrees, Senior Ministerial Officials (for example, the Director of the Food Control Department of the MOH) may also issue operating guidelines or interpretations. These guidelines and interpretations have the force of law, are established without public input and are not subject to appeal.

3.2.1.5 Functionality of the System

From an organization standpoint, this system, as currently structured, appears to function smoothly. That is, who establishes the regulations is relatively clear and straightforward, even if it is not particularly obvious to the public. However, the lack of due process, as spoken to below, clearly creates a disincentive to trade in that exporters are reluctant to risk large sums of money when they are: a) not sure what the regulations are; and b) not sure when and how fast they are going to change.

However, the system has become much more complex and is subject to extensive interpretation upon implementation. While, as we shall describe below, the MOH has the ultimate responsibility to ensure public health, the large number of product standards, the often vague nature of quality attributes that have a regulatory status, and the multiplicity of agencies involved in ultimately determining the acceptance or rejection of a product make the current system cumbersome at best and totally unworkable at its worst. Substantial remediation is required to provide for transparency and due process, to make the system efficient, and to ensure that Egypt's food and agriculture control system is in compliance with the GATT, to which Egypt is a signatory.

3.2.2 Manufactured Commodities

Mandating a standard for manufactured products is less complex than for food and agricultural commodities. In the past, the standard was simply mandated as written by the EOS. Currently, there is a trend away from such comprehensive standards in favor of "performance standards" as the only mandatory component of a standard. Nonetheless, there are now on the books over 100 mandatory product standards being monitored for reasons of quality control. Table 3.2.2.1 shows the products covered.

Pressure to mandate a standard can emanate from almost anywhere, but it is typically channeled through EOS to the Minister of Industry and through GOEIC to the Minister of Supply. At this point the process is not always transparent, but it is reported that interested parties are brought together in a committee to consider the issue. There is eventually publication of any decree in the government gazette and published lists of products effected exist. What is clear, however, is that the objective is often one of consumer protection from lower quality products, especially but not exclusively imports. And many of the standards are more specific than any international standard. Thus, there arise mandated product standards which specify ink contents in ball-point pens, quality of paper, specifications for socks, and so on, well beyond legitimate safety standards such as for boilers or fire extinguishers.

3.3 Regulatory Aspects of the System: the Enforcement of Mandatory Standards

As explained earlier, the deficiencies of the current system become serious and costly choke-points in the economy when compliance with the standards or some technical aspects of the standards is made mandatory. In particular, in areas where health and safety are legitimate concerns, the current system often suffers from mandatory compliance rules that are non-transparent, inappropriate, over-zealously enforced, etc. Additionally, many more of the mandatory rules and standards simply are unnecessary and create substantial disincentives to investment, production, and trade.

The following section describes how the current system works both for food and agriculture products, and for manufactured goods.

3.3.1 Food and Agricultural Products

3.3.1.1. Agencies Involved

Food control in Egypt is shared by five (5) agencies: Ministry of Health (Department of Food Control), Ministry of Agriculture (both PPQ and Veterinary Medical Services), Ministry of Industry (EOS), Ministry of Supply and Foreign Trade (GOEIC), and the Atomic Energy Organization.

The focus of this discussion is on imported food products. While exported products often have to meet mandatory EOS standards, and these standards may be inhibitory, restrictions on product exporting are primarily caused by Egypt's economic policies; these policies are discussed elsewhere in this paper.

Additionally this paper focuses on the import control activities of the Ministry of Health, the Ministry of Agriculture Veterinary Medical Services and GOEIC. The hindrances noted above are generated primarily by these agencies. Also of interest is the largely unnecessary radiation testing done by the Atomic Energy Organization.

Our review of the import controls exercised by the Ministry of Agriculture with respect to PPQ activities for fresh fruits and vegetables, the importing of wheat and other grains, and

the control of feeds and feed grains examined through the Central Food and Feed Laboratory did not raise significant issues. Other than to review the agency's procedures, they are not otherwise discussed in this report. Caution is advised, however, that the limitations of time prevented an in-depth review of all sectors; problems may exist with plant quarantine and grain inspection that were found by the investigations of this technical team.

3.3.1.2. Organization of Food Control Authorities

Organizationally, each food control operates in a similar manner, characterized by a headquarters operation located in Cairo, with field offices located throughout Egy. The number and nature of the field offices are dependent upon the agency's responsibilities. Please refer to Figures 3.2.2.1 A-F for organizational charts for MOH, MOA-Veterinary Medical Services, MOA-Plant Protection and Quarantine, and GOEIC.

Egyptian Organization for Standardization and Quality Control.

EOS is described above (Re: Sec. 3.1).

Ministry of Health.

MOH has a five fold role.

1. Inspection of domestic, imported and exported foods.
2. Establishing maximum permitted levels of usage for food preservatives, colors and antioxidants
3. Training of food inspectors and supervisors.
4. Epidemiological investigations of food borne outbreaks.
5. Consultation and problem resolution.

MOH maintains a headquarters office in Cairo and offices in each of Egypt's 27 jurisdiction units. In each jurisdiction office at least one inspector is maintained for processing plants, markets and food service operations, and (separately) tourist facilities.

Domestic food processors must meet specified hygienic practices for both operations (including equipment) and personnel.

Domestic processing plant inspections are carried out approximately twice per year for larger plants, once a month for smaller plants.

Product standards followed are those of the EOS.

Processing plants producing export product must meet basic food hygiene requirements. MOH does not require export products to meet specific MOH technical specifications (but certain EOS standards may have to be met). MOH does check domestic markets to be sure

that products destined for export and not meeting EOS standards are not sold domestically. MOH may, at the request of an exporter, inspect, test and issue a certificate of conformance for an export product.

To handle imported product, MOH maintains offices and laboratories in all five major ports (Alexandria, Port Said, Cairo, Suez, and Damietta). See below for detail of the import process.

MOA Nutrition Institute.

The interest in the Nutrition Institute (NI) involves its' role in registering and approving special dietary foods. Special dietary foods are all foods whose composition is different from "normal" food. In practice this involves all calorie modified foods, all baby and infant foods, all energy foods, all special health foods including diabetic and weight control foods, all vitamin and mineral supplements, medicinal herbs, and bottled water. Any food making a nutritional claim falls under the NI's program.

The NI is a component part of the Ministry of Health. It also, however, works with MOA, Ministry of Supply, Ministry of Education, and the Ministry of Public Relations. The NI is comprised of six departments: Food Science, Biochemistry, Surveys, Clinical Nutrition, Food Hygiene, and Requirements and Growth.

The Registration Process for Special Dietary Foods is the following, as authorized by Ministerial Decree. The process involves two Technical Committees: 1) an NI internal Technical Review Committee comprised of NI employees including biochemists, food technologists, pharmacists, medical doctors and nutritionists; and 2) a High Committee for Nutrition, used as an advisory committee for the Institute and as a regulatory committee for the final approval of all special dietary foods. The High Technical Committee for Nutrition is comprised of representatives from MOH (Undersecretary for Health), Universities (Pharmacy, Food Technology), Directors of Research Institutes (e.g., Food Technology), and the Vice President for the Egyptian Academy of Science.

- The registration process involves the submitting of an application form giving product name, manufacturer, country of origin, importer (if imported product), all ingredients and specifications, the manufacturing process, a certificate of analysis, health certificate and certificates of free sale.
- Samples are submitted and analyzed- both chemical according to specifications and for heavy metals, pesticide residues, and micro-biological. Labels are reviewed and labeling claims are verified. The NI maintains its own laboratories for testing (see laboratory section below).
- The results are forwarded to the Institute's technical committee for review and a decision is made. This is a consensus, judgment call.

- The recommendations of the Institute's technical committee is forwarded to the High Nutrition Technical Committee for review. A consensus is reached for approval or non-approval.
- If the application for approval is denied, the applicant can resubmit the product for consideration with corrections made to accommodate the reason for non-approval.
- All decisions of the High Technical Committee are final.
- No public or private input occurs in this process. No appeals other than that noted above can be made.
- No private side individuals are represented on these two technical committees.

The application fee is current 110 LE. The claimed normal turnaround for applications is 3-6 months. In practice, technical team discussions with importers indicated that the time required for registration is more often 6-8 months.

Currently, around 1300 products are registered.

The Institute is also responsible for dietary intake surveys. The last major survey was undertaken in 1980, and the institute is thinking about beginning a new survey.

The Institute is also the lead organization for an effort being undertaken to develop a food composition table for Egyptian foods. This is a resurrected project. The Institute has requested other agencies to submit information they may have on the composition of foods produced and consumed in Egypt (no effort is being made to determine the quality of this data). The Institute is also attempting to obtain composition information from sister agencies in neighboring Middle East countries.

Ministry of Agriculture-Plant Protection and Quarantine (PPQ).

MOA PPQ has the responsibility to control and prevent the spread of unwanted plant pests and disease in Egypt. The agency originated in the early 1900's with a single focus on cotton and has expanded since. Multiple laws govern the agency with PPQ raised to a separate administration for plant quarantine in 1991.

MOA PPQ organization consists of the central administration, and 19 port and field offices including the Cairo airport, Suez, Said, Alexandria, and Damietta.

The agency is involved with both import and export. The process by which this agency works appears to be similar to internationally recognized practices of plant protection and quarantine.

IMPORT ACTIVITIES

Commodities involved: raw grains, fresh fruits and vegetables, seeds, horticultural products. Every consignment of above products are inspected. Phytosanitary certificates are normally required, but this is not an absolute requirement.

PPQ maintains a list of prohibited pests and diseases by commodities. The inspection process involves.

- presentation by importer of customs form which contains or as attachments contains bill of lading and manifest info., phytosanitary certificate if needed, quantity of material etc.
- inspection within working three days. Visual examination is carried out. Samples may be taken for verification of the presence of pest or disease.
- reconditioning if a pest found but the pest is not on the prohibited list for the product. Reconditioning can be by fumigation, hot air treatment, hot water treatment or other appropriate means.
- approval/release notice given if no problem found or reconditioning is satisfactory. Release approval is contingent on final approval from other involved agencies (if any).

Seeds for plant, germ plasm, and cuttings for planting are given more stringent inspection re: presence of disease. A post quarantine station exists in Alexandria for review of these products if deemed necessary (grow out, etc.).

PPQ maintains a procedure by which pre-clearance for products can be done. This involves an inspection by Egyptian PPQ officials in the country of origin. This is required for very sensitive products (example given was seed potatoes). PPQ indicated they prefer pre-clearance inspection for planting materials, but it is not necessary (except for seed potatoes). Pre-clearance inspection is normally carried out in conjunction with the host country PPQ officials.

EXPORT INSPECTION

Export inspection is done by PPQ for fresh plant commodities. Inspection can be done at the point of production, at the packing house or at the point of export. Most inspection is done at the packing house. In some cases, such as highly perishable vegetables, inspection is done at the field level. A phytosanitary certificate is issued based on the visual inspection and absence of pests and diseases prohibited by the country of import.

Note: A current "hot button" issue is brown rot in seed potatoes. PPQ recently concluded

a series of negotiations with the EU designed to permit the importation of potatoes from Egypt from disease free areas into selected ports.

Ministry of Agriculture- Veterinary Medical Services (VMS).

MOA/VMS is responsible for meat, fish and dairy products. From discussions undertaken with MOA/VMS it appears that this agency operates very similar to MOH. Thus:

- Standards are set by EOS and implemented by VMS.
- VMS maintains offices, laboratories at the Central Cairo facility plus 26 regional offices including all five major ports.
- Import product inspection involves inspection of product on board ship (visual veterinary inspection, temperature, documents) and product sampling upon off loading. Analysis at port laboratory and release if all tests are satisfactory and no other agency rejects product.
- Regulations are promulgated in the same fashion as MOH. A proposal for a new standard is forwarded to EOS. The EOS Technical committee prepares a draft proposal, the proposal is reviewed and approved, as appropriate by the EOS council as a voluntary standard. The Standard is made mandatory by Decree from either the Ministry of Industry and Mineral Wealth or the Ministry of Agriculture. The regulation is implemented within a specified time frame; there is no appeal of the final decision.
- The MOA/VMS Central Laboratory is maintained within the Animal Health Research Institute, the principal scientific assistance entity for MOA. As with the MOH, field laboratories are maintained in each of the five main ports.

Ministry of Agriculture- Central Laboratory for Food and Feed (CLFF).

The CLFF provides testing and grading services for importers of feed grains and other animal feedstuffs on a voluntary fee for service basis. Inspection income has allowed the CLFF to maintain a level of quality in its own work that is unmatched by any other government inspection agency in Egypt. CLFF works closely with the U.S. Department of Agriculture's (USDA) Federal Grain Inspection Service to ensure that the CLFF's standards are appropriate for the products that it is testing. CLFF also receives financing and technical support from private trade associations in the United States and Europe.

Atomic Energy Organization.

The Atomic Energy Organization inspects all imported food products to ensure the absence of contaminating irradiation. This requirement was an outgrowth of the Chernobyl nuclear reactor catastrophe. Inspectors from the AEO routinely board all incoming vessels

to check radiation levels of food cargo, and only after negative results are obtained can off loading of the vessel occur. Given the long-term absence of positive test results from most importing countries, a reexamination as to the need and role of the AEO is in order.

General Organization for Export and Import Control (GOEIC)

GOEIC, within the Ministry of Supply and Foreign Trade, has responsibility for testing imported and exported products to ensure they meet the quality portion of the EOS standards (Refer to EOS discussion above re: mandatory adoption of all EOS standards by this organization). GOEIC may also, however, indirectly generate standards through the use of an "ad hoc" technical committee. This committee provides recommendations for a standard, which, in turn, is recommended to the Ministry of Industry and Mineral Wealth for authorization.

GOEIC maintains 22 offices/laboratories, eleven (11) offices and labs located at shipping/air ports for import, and eleven (11) located throughout the country for export inspection.

For all programs, GOEIC maintains a staff of 3000, about equally divided between import and export.

GOEIC's original role as an insurer of the quality of food imported by the state and the insurer of the quality of food exported by state manufacturers has largely disappeared. As will be seen in the discussion relating to the multiple role of agencies in import control of foods, this is an agency whose role should be modified to accommodate the changing needs of international trade.

3.3.1.3. Enforcement of Mandatory Standards and Their Involvement with the Importation of Food Products

The enforcement of mandatory standards in the food and agriculture sector is characterized by a multitude of problems: unnecessarily restrictive pre-shipment approvals for imported products, lengthy registration requirements for certain imported products, multiple inspections by different agencies of imported product, the application of inappropriate quality-based (as opposed to safety based) regulations to all products- domestic, imported and exported, excessive product sampling, lengthy clearance times for imported product, vagueness in certain product requirements that lead to product classification difficulties, a difficult review process exacerbated by a high rate of initial failure of imported product, inadequate laboratories, excessive manpower usage, and inadequate computerization.

Importation Process

The importation process for most food products can plainly be described as daunting. To the best of the technical team's knowledge, no other country in the world makes the importation of foods so difficult.

Figure 3.3.1.3. shows a flow diagram of the current import process for foods. Depending upon how you analyze the process, at least 30 different steps are involved. (Note: this figure was developed by SRI International during the preparation of their report *Industry Diagnostics and Roadmaps to Increase Egypt's Export Performance*; the study team has confirmed the findings of this report.)

The entire import process can be viewed in terms of five broad stages recognizing the each stage consists of multiple elements. These steps are: Pre-shipment requirements; Initial import procedures; Agency inspection and testing; Appeal Procedures; and Final clearance.

PRE-SHIPMENT REQUIREMENTS:

This stage involves opening the initial letter of credit, obtaining notarized copies of shipping and certification documents (including the invoice, bills of lading, certificate of origin, and health certificates), obtaining a Form 11 from the Egyptian bank and getting signatures from the bank, the Ministry of Finance, and the Ministry of Economy and Trade.

INITIAL IMPORT PROCEDURES:

This stage involves the assignment of a Shipping Agent (owned by the Government of Egypt and separate from the vessel's shipping agent); arrival of the vessel in port; the comparing of the invoice and bill of lading with the ship's manifest; the issuance of a title transfer document to the importer; the radiation inspection of the cargo by the Atomic Energy Organization (note: if radiation positive, consignment is rejected); the unloading of the consignment; the purchase and completion of an "Importation Form"; and the registration of the consignment with Customs in the "Number 46 book" for foods and an initial evaluation of the tariff classification of the product.

PRODUCT INSPECTION AND TESTING:

This stage involves the notification of all required food inspection agencies. Up to four agencies may be involved. All food consignments will be inspected by the Atomic Energy Organization (for irradiation), the General Organization for Import and Export Control (for quality), and the MOH (for safety and quality). MOA/VMS will be involved for all meat, poultry, seafood and dairy products (for safety and quality). Appropriate forms must be completed manually and separately with each agency. With the exception of frozen meat and poultry, each agency samples and tests the consignment independently. For frozen meat and poultry, a combined sampling is done but testing is still done independently by each agency. All agencies must approve the shipment before release is granted. The failure of the consignment by any one of the agencies involved will result in the rejection of the shipment. The MOH grants the final release of the consignment.

APPEAL PROCEDURES:

Failure of the lot by any one of the agencies involved results in failure of the consignment. The importer may elect to appeal the decision. This requires the submission of a notice to appeal, the re-sampling and reanalysis of the product, and an often lengthy review by the a MOH Technical Review Committee for Import Appeal. This Committee meets weekly (Wednesday from 9:00 am to 1:00 pm) to review all appealed consignments. The Committee is made up of representatives of each agency involved with food importation plus university food professionals. Appeals are taken in chronology order (usually). Decisions of the Review Committee are final. This review process is lengthy, doubling or tripling the clearance time.

FINAL CLEARANCE:

This stage involves: obtaining the final release approval from MOH after all involved inspection agencies have testing and approved the product (this step may last through the appeal process); final evaluation of the tariff classification by customs; payment of duty; appeal of the classification and duty payment if needed; obtaining final release from customs and clearance of the product from the port.

Difficulties Associated with the Importation Process.

As noted above, serious difficulties exist with the importation process in Egypt that stifle trade. A brief delineation of some, but not necessarily all of the problems is presented below. An integrated discussion of these and other problem areas is presented in Section 3.4 below.

NOTARIZATION OF FORMS PRE-SHIPMENT.

As noted above, notarized copies of shipping and certification documents (including the invoice, bills of lading, certificate of origin, and health certificates) must be obtained. While the documents required are not unusual, notarization to ensure their authenticity is not common. This requirement can substantially increase the cost of importing (notarization fees can be up to U.S.\$80 per page) and add to the time required for importation. The notarization requirement reflects a lack of trust in the importer (the "lack of trust" factor is pervasive throughout the Egyptian system) and is generally unnecessary. The practice is definitely not a common one in international trade.

MULTIPLE AGENCY INSPECTION AND TESTING.

As noted above, up to four (and on occasion five) agencies separately and independently (except for frozen meat and poultry) are involved in the inspection,

testing and approval of imported foods. This duplicity of inspection and testing is absolutely unnecessary and, in a country short on resources, deprives the country of resources that could be allocated to areas where they are needed more (e.g., domestic food safety inspection and health and nutrition education). Based on the technical team's discussion, this duplication of inspection is the result of blind adherence to stated agency responsibility by law and decree and the lack of trust that exists within Egypt (i.e., agencies cross-checking each other and the importer). This multiple inspection, as noted above, not only consumes scarce Egyptian resources, but is costly to the importer in terms of multiple fees, time and product lost to samples.

MANDATORY TESTING OF EACH LOT OF PRODUCT.

Current import regulations require that every consignment of a product be inspected, independent of the compliance history of the product, the country, the exporter, the shipper or the importer. The international norm is to base the level of inspection on the compliance history of the product and the other factors just mentioned. Indeed, Codex Alimentarius outlines just such an approach in the document *Proposed Draft Guidelines for the Design, Operation, Assessment and Accreditation of Food Import and Export Inspection and Certification Systems* prepared by the Codex Committee on Food Import and Export Inspection and Certification Systems and under Consideration by Codex at Step 5 of the approval process. Mandatory testing of each consignment again utilizes scarce resources that could be better directed and also increases the cost of importation.

EXCESSIVE PRODUCT SAMPLING.

A problem directly related to multiple agency inspection and mandatory inspection of each consignment is the excessive loss of product that occurs. Each agency employs and strictly adheres to a sampling plan. While such statistical sampling is clearly appropriate, its application by multiple agencies on every consignment results in substantial amount of product directed to verifying compliance rather than made available for retail sale. Such a situation may not be particularly serious for products that are packaged in small containers and have a relatively low unit cost. However, for other items, such as frozen meat or cheese, the cost of sampling can be very high.

QUALITY STANDARDS AS A REGULATORY TOOL.

While this problem is discussed in much more detail in Section 3.4, suffice it to say at this point that a substantial portion of the requirements for importation (and resources devoted to inspection and testing) involve factors that have no bearing on the safety of the product. From our observation of laboratory testing of product by MOH and MOA, for example, upwards of two-thirds to three-quarters of the analytical resources are devoted to quality testing. All of GOEIC resources are

devoted to this area. While such a program clearly has its roots in the former relationship of Egypt with the former Soviet Union and also relates to the "trust" factor, and while certain elements of a product's quality may need to be verified, Egypt's import (and domestic) program clearly carries such testing to extreme. A complete re-evaluation of this area is needed.

WHEN QUALITY CONTROL STANDARDS GET TO BE A GRIND

An Egyptian producer of instant coffee has found that the inappropriate use of quality standards as a regulatory tool increases his product cost by over 20%. Cracked and broken beans can be used in the manufacture of instant coffee without lowering product quality since the process involves the extraction of bean components. Egyptian coffee bean standards have a maximum permissible level of broken or cracked beans. Restricting the level of defective beans increases raises the price of the raw ingredient for instant coffee manufacture. This broken bean standard is entirely separate from elements of the standard relating to safety elements such as moldy beans and extraneous material.

LENGTHY CLEARANCE TIMES.

While agency personnel generally indicate that importers should be able to clear product within two weeks (three at the maximum), the actual clearance time, based on discussion with importers, is much closer to 30 days and can extend up to 5-6 months if the product gets into the appeals process (see below). One significant food importer indicated that the best they could obtain was 21 days after several years of learning and working the system. (The experience of this same importer in most other countries is that it normally takes from 1-7 days to clear product). Egypt's multiple inspection, multiple testing, testing for unneeded items, frequent appeal process and related items clearly extends the time of clearance beyond what is considered normal practice by most countries. This adds to the cost of importation both from the effort needed by importers to clear the product but also from the cost of holding product at the port or in bonded storage (demurrage costs, port rental costs, warehouse rental costs, etc.).

DIFFICULT APPEALS PROCESS.

Upon rejection of a consignment, the importer has three choices: re-export, destroy the product, or appeal the decision. The appeal process is frequently used, often because the causes of rejection are relatively minor (e.g. labeling) or because the creditability the testing laboratory is suspect. Once a decision is made to appeal, the importer can expect a difficult time. Essentially, the process (and import "clock") starts all over. The importer must file a notification of appeal to a MOH Technical Import Review Committee. If approved, a new inspection and new set of analysis is done. The results are provided to the Technical Review Committee. This Committee meets once a week for approximately four hours and takes appeals in a chronological order. This Review Committee is comprised solely of government officials and related government representatives (e.g., University food

professionals). For other than routine labeling issues, getting approval for a rejected product is "tough." The time required for this appeal process is lengthy, normally weeks and up to months depending on the problem, the backlog of appeals and the "attitude" of the Review Committee to the reason for rejection. No on-going discussion is maintained with the importer; the importer must constantly monitor the activities of the Review Committee to determine when his appeal will be heard and what the rationale for the Committee's findings are. Such an approach is difficult at best, but is made worse by the apparent frequency of product failure and appeal. One importer indicated that of 42 consignments, 34 went through the appeal process; while most were rejected for label violations, the appeal process was both time consuming and expensive.

INADEQUATE LABORATORIES.

The status of laboratories is discussed more completely below. Suffice it to say at this point, that the quality of testing presents a problem for all laboratories in at least some analytical areas (some much more than others--see below). This presents a difficulty by increasing the rate of failure for many products. Delays due to re-testing resulting from inadequate credibility of initial findings (on the initiative of the laboratory) also occur.

APPLICATION OF STANDARDS, PRODUCT CLASSIFICATION, NEW TECHNOLOGY AND INTERPRETATION ISSUES.

EOS standards more often than not represent products that are historically "common" in nature (e.g., frozen beef in primal cuts, common canned fruits and vegetables, common fruit juices, etc.). New products (e.g., portion-control premium beef products, fabricated and snack foods, fruit juice blends, new technology-generated food additives, convenience ready-to-prepare meal entrees, etc.) present unique challenges for importation. Often there is difficulty in classifying the products when they don't fit neatly into an existing standard. These classification issues can lead to lengthy "discussions" which may reach different conclusions with different agencies. The lack of training and understanding of inspectors in new food technologies and the "quality standards mentality" of trying to force a product into an existing standard or figuring out a standard for a new product often creates difficulty (see discussion below under quality standards). For example, the restriction on fat content of beef forced an importer to change from classical primal cuts of beef (e.g., prime rib) to semi-portion control highly trimmed beef loin strip steaks vacuumed packed in plastic pouches. The import inspector was not familiar with this new technology and initially found the product to not be acceptable because it did not have the normal "skin" of beef and was "slimy" and thus spoiled. Extensive discussion with MOH and MOA was necessary to convince the agencies that this new technology product was perfectly acceptable and normal.

Additionally, EOS indicates that it uses international norms to qualify product

when no EOS standard exists. While this does occur, more frequent is the situation where the importer uses a producer specification as a substitute "norm" that is accepted by importing agencies. This "standards creation at the port" is the direct result of a quality standards mentality by the importing agencies, the absolute need to have some sort of "descriptive quality/compositional standard" to qualify a product for import.

The bottom line of this problem, as noted by more than one food importer is the extreme amount of person-to-person (importer to inspector) time, apart from the process itself, that was necessary to make the system work, the extensive discussions involving the interpretation of rules and exceptions that had to be obtained to make the system work, and the related "hassle" within the system. This problem clearly adds time and costs to the import process and has an "opportunity lost" cost in time spent clearing product that could otherwise be spent on additional sales and new product introductions.

Cranes in the System

A local steel producer ordered a new industrial crane for use in Egypt. The crane was manufactured in France and then transported to the port in Marseilles for delivery to Egypt. It was stopped by Egyptian customs which claimed the crane was misrepresented as new because it had been moved in France. Importation was delayed as the issue of "new" or "used" was sorted out. After two years of delay, the local steel maker did not need the crane anymore.

PRODUCT SHELF LIFE.

As mentioned above, the EOS has set shelf lives for a multitude of products, including many food items. These shelf lives do not necessarily reflect the actual shelf life of the product, even under the conditions of Egypt. They further cause a restraint of trade in that limitations placed on the allowable shelf life of a product may hinder or prohibit the importation of a product. Frozen beef may be taken as an example. Currently, the mandatory self life for frozen beef is 4.5 months (an original 9 months has been reduced by one-half by Ministerial Decree). Further, the product must have at least one half of its shelf life remaining upon importation. This reduces the effective shelf life to 2.25 months (one half of 4.5 months). Allowing 3-4 weeks from production to arrival and 3-4 for weeks for clearance this leaves the minimal shelf life of 2.25 months to sell the product. Separate and apart from the appropriateness of the 4.5 month shelf life, the product can be sold in this time period if a good market for the product exists. However, consider the case of either a slow market or, more likely, a delay in importing caused by labeling or a more difficult problem in which, for example, different laboratories get different total bacterial counts—one above the limit and one below. This may add up to another 4-8 weeks to the importation process, reducing the time available for sale to 0.5 to 1.5 months. This puts the product right on the edge of having sufficient time to move the product in the marketplace. The situation can be even worse for frozen meat sold in retail packs; the current shelf life for this product type is 1.5

months with a requirement to have at least .75 months left on the shelf life at clearance. Given the best of conditions, this makes sale of this product difficult unless an absolute guaranteed market exists for the product. In one instance known to the technical team, final approval was given to import the meat with one day left on the allowable shelf life.

Clearly the shelf life situation is restrictive to trade.

LACK OF COMPUTERIZATION.

Apart from the Customs Authority, no computerization of the import process exists. All forms must be filled out, in multiple copies, by hand using very old carbon paper technology. This substantially slows down the process and increases the opportunity for error.

3.3.1.4 Laboratory Capabilities.

Several food laboratories were visited and assessed as to their function, level of activity and apparent capability to perform the work undertaken. Specifically visited were the following facilities:

MOH Central Laboratory in Cairo.
MOH Field Laboratory in Alexandria.
MOA Veterinary Services Central Laboratory in Cairo.
GOEIC Field Laboratory in Alexandria.
EOS Central Laboratory in Cairo.
MOH Nutrition Laboratory in Cairo.

The assessments of each laboratory is as follows.

MOH Central Laboratory- Cairo.

This laboratory is large, occupying at least three floors with each floor roughly estimated at 10,000 square feet. The laboratory includes Sanitary Chemistry (food and water chemistry), Microbiology (food and clinical), Toxicology (Pesticide Residue analysis), and Clinical Chemistry. The food related functions appear to occupy most of two floors.

The laboratory maintains a staff of approximately 450 individuals of which 50 are administrative and approximately 250 are involved in food analysis. Of these 250 food analysts, it appeared that from 2/3 to 3/4 were involved in quality testing.

The annual food sample load was indicated to be approximately 300,000 samples with 4-5 tests on the average done per sample. The laboratory handled the regional Cairo MOH sample analysis program, appeal sample testing for all imported products and difficult sample testing needs referred to it by MOH field laboratories.

The laboratory's physical facilities were generally adequate. Extensive remodeling of the facility is in progress with over half of the square footage remodeled to date.

True safety testing occupied five of some 12 laboratory operational sections, specifically food microbiology, pesticide residue analysis, "biological" (animal feeding) testing, food additive and contaminant testing, and can integrity testing including lead analysis for canned products.

Safety testing included a biological testing unit (not toured) in which all food samples are homogenized and fed to animals (primarily mice and rats) to verify their inability (or ability) to cause illness.

Quality testing occupied the balance of the sections divided up into commodity areas, specifically: processed fruits and vegetables, bakery and bakery products (including flour and pasta), dairy products (including milk, cheese, and fermented products), fishery products, edible fats and oils, and spices and condiments.

Safety tests conducted included the biological testing noted above, a limited pesticide residue screen (primarily chlorinated hydrocarbons), heavy metal analysis, basic food additives and preservatives (e.g., sorbic acid, benzoic acid, food colorants, some antioxidants), and a battery of microbiology tests (total plate count, coliform and E. coli tests, yeast and mold, and food pathogens- salmonella, listeria, Staphylococcus aureus, Campylobacter, B. cereus, etc.).

Quality tests performed on products included items such as fat, moisture, solids, protein, oil quality tests (melting points, iodine number, peroxide number, Thiobarbituric acid number), Ph, color, texture, percent defects (e.g., broken beans, insect-eaten beans, etc.).

The methodology employed was that specified in the EOS standards (primarily WHO, AOAC, ISO, IDF and methods established and recognized by other country federal agencies). The EOS technical committees have as one of their members an analyst(s) knowledgeable in the product to recommend both tests and methods. Test methods were generally adequate for quality testing but very marginal for safety testing except for microbiological testing. For example, food colorant testing was done by paper chromatography, a technology that is outdated by at least 20-25 years. It appeared that the biological testing of foods was done because of the absence of sophisticated food safety testing capability, particularly that for pesticide residues, contaminants and micro-biological toxins.

Laboratory equipment for food quality testing appeared to be adequate. Equipment for food safety testing was marginal at best.

The overall assessment of this laboratory is as follows: physical facilities are generally adequate as long as ongoing remodeling continues and is completed; quality test methods and equipment are adequate for the purpose; safety testing, in terms of level of effort,

equipment and test methods, is inadequate.

It is important to note that this laboratory and the MOH field laboratory in Alexandria were, by far and away, the best food laboratories visited during the project.

MOH Field Laboratory- Alexandria.

This is essentially an identical laboratory in scope to the MOH Cairo laboratory, but substantially reduced in size.

The laboratory performs tests on imported products and serves as the regional laboratory for Alexandria area.

The laboratory complex consists of some 8 individual laboratories, each approximately 400 square feet. The laboratory sections are the same as the central MOH laboratory. The sample load is approximately 36,000 - 48,000 samples annually. The laboratory staff number is 55. The breakout with respect to staffing and workload appears to be approximately the same as the central MOH Cairo laboratory; approximately 2/3 to 3/4 involved with quality testing, the balance with safety testing.

The actual physical facilities are good. The laboratory has recently been remodeled with clean, well lighted laboratories containing good bench and work space.

Essentially the same tests and test profiles are carried out. The laboratory has, however, more limitations on safety testing. No instrumental chromatographic equipment is currently operational, although new equipment has recently arrived or is on order. Pesticide residue testing is antiquated in this facility (paper and thin layer chromatography). Heavy metal analysis is mostly antiquated with spectrophotometric techniques used.

Overall assessment: A physically good laboratory adequately equipped for quality testing but inadequate for safety testing.

MOA Veterinary Medical Services Central Laboratory.

The organization of the MOA/VMS Central laboratory is very similar in concept and operation to the MOH Central Laboratory. The laboratory deals with meat, poultry, seafood and dairy products.

The MOA central laboratory serves the same function as the MOH central laboratory: Cairo regional laboratory, appeal samples, problem solving. Additionally, this laboratory does all "complex" testing for MOA (e.g., pesticide residues, drug residues, growth promoting hormones). All samples for this type of testing are transported to Cairo from the field laboratories; this adds approximately 1-2 days to the completion date for samples.

The same approximate distribution of testing: 2/3-3/4 quality and the balance safety applies

to this laboratory.

Testing (and methods used) are done to EOS standards. Test volume was stated to be approximately 24,000 samples per year with a staff of 70 at the Central laboratory. The laboratory appeared to occupy an equivalent total of one floor, approximately 40,000 square feet.

Quality testing done is an exact duplicate of the MOH laboratory. In fact, the only difference in testing at this facility appeared to be the analysis of samples for animal drug residues and residues of growth promoting hormones.

The physical facilities of this laboratory appeared to be marginal. Laboratories were not particularly clean, were marginally lighted and appeared old and worn out.

The technical team reviewer questions the competency of this laboratory. Certainly, when inquiring about pesticide residues, the answers given indicated that the staff was marginally familiar with outdated test methods and had not the remotest idea of instrumentation confirmatory methods. The staff in the balance of the operation did not give an impression that they were particularly competent or interested in their work.

Based on the significant duplication of work carried out in this laboratory versus that of MOH, and the apparent lack of competence and weakness in its facilities, it is recommended that this laboratory be closed and non-duplicative testing transferred to the MOH facility. Although caution should be exercised because field laboratories of MOA/VMS were not toured, a similar recommendation to close field MOA/VMS laboratories and combine their operation with MOH is also made.

GOEIC Alexandria Laboratory.

This laboratory does only quality testing on imported manufactured goods and food products imported through the Port of Alexandria. Staffing level was given as approximately 50. Square footage (all on one floor) appeared to be 20,000 square feet. No workload statistics are regularly maintained by the laboratory.

The focus of this laboratory was clearly on manufactured goods testing. The laboratory appeared to well equipped, using appropriate test methods, with personnel well trained to carry out quality tests on such products as paints, paper, construction materials, electronic parts and the like.

The laboratory appeared to adequately equipped to perform the necessary basic quality tests on food products. All equipment appeared, however, to be old and worn. With the exception of a sugar laboratory, the food testing appeared to be integrated with other sections of the laboratory. The interest of this laboratory was not in the foods field.

No food safety testing is done by this facility.

Overall assessment: Very competent in quality testing of manufactured goods; competent in quality testing of foods. Testing of foods is entirely duplicative of testing by other laboratories, including MOH, MOA and EOS.

EOS Cairo Laboratory.

Only the foods portion of the EOS Cairo Laboratory was visited. The foods portion is relatively small, occupying, approximately 20,000 square feet, employing 70 individuals. The laboratory currently performs quality tests only on both imported and domestic samples obtained domestically. The purpose of the test program is to ensure that imported and domestically produced food products are in compliance with EOS standards.

The great majority of this testing facility is involved in the testing of manufactured products. The purpose of such testing is the same as stated for foods.

The organization of the food testing component of this laboratory is exactly the same as the quality testing sections of the MOH and MOA laboratories. The laboratory equipment was limited, generally old, but appeared to be functional (except for one liquid chromatograph). This laboratory has limited electronic instrumentation for foods testing- 2 gas chromatographs and the single non-operational liquid chromatographs.

Stated workload for this laboratory was low, approximately 20-30 samples per month.

Overall assessment: competent for the quality work it does, but completely duplicative of work done by other laboratories.

Nutrition Institute Laboratory- Cairo.

The NI maintains a moderate support laboratory to test food products submitted for registration.

Test types done include quality specifications (primarily compositional testing such as fat, moisture, solids, protein), food safety testing including food additives and preservatives, pesticide residue, and micro-biological profiles including pathogenic microorganisms, and analysis for active ingredients in such products as vitamin supplements and medicinal herbs.

The laboratory is in the process of being remodeled and equipped. Square footage appeared to approximately 20,000 square feet. Staffing appeared to be moderate at approximately 40 individuals.

This laboratory, under a new director, has embarked on a complete upgrading of facilities and equipment. While current equipment is limited, what exists appears to be new and operational. It is expected that the laboratory will be well equipped within 1-2 years if

funding can be found to purchase the needed items.

Overall assessment: Too soon to tell but the changes underway in the laboratory point to a facility that will be competent and complete.

3.3.2 Manufactured Products

Monitoring and enforcement of the mandatory standards for manufactured goods is vested in three agencies: Department of Industrial Control (MOI), Department of Control (MOS), and GOEIC (MOS). Control's essential mission is to inspect for fraudulent products domestically. Industrial Control monitors domestic compliance to EOS recognized mandatory standards at the factory level. GOEIC has responsibility for monitoring the EOS mandatory standards for imported and exported products.

3.3.2.1 Domestic Products

Domestically produced products and production processes must be in compliance with certain standards including the mandatory standards of the EOS. Industrial Control is guided by this list and has about half of its 650 employees randomly checking factories. The Technical Team was told that checks range from one to four times a year depending on the compliance history of the producer. Failure to comply can result in administered shutdown.

Industrial Control samples products and then shares the samples with the MOH or the Chemical Analysis Lab of the MOI. The inspection is for EOS standards conformity.

While the Technical Team encountered some complaints about the enforcement of some inappropriate standards, there did not appear to be especially high compliance costs. One producer of a garment article said that he would be out of business if he had to comply with the relevant mandatory standard, but that the standard is not enforced.

3.3.2.2 Imports and Exports

Imported manufactured products are less regulated than are food products. However, since 1990 when GOEIC was created, mandatory inspection has increased to over 100 products from the 17 products previously inspected by EOS. Partially this is due to lifting bans on certain products and easing import licensing procedures. GOEIC has a presence with offices and labs in 22 locations around Egypt, including 11 at the sea and air ports. There are about 3000 employees.

When controlled products move through the ports, GOEIC samples each lot. It is allowed by law to take up to 1% of the consignment for sampling, and can take another 2% if the product is initially rejected. As a practical matter, the sample sizes vary and in one case 100% of an imported article was destroyed for sampling purposes. Many of the items are taken to labs to be analyzed and this can entail driving the product from a seaport to Cairo

in some instances.

In our survey of businesses, importers and exporters complained of long delays, unclear procedures, and excessive sampling. For some products, the fees involved were non-trivial. Appendix E gives a list of controlled products and inspection fees.

Several examples from our survey speak to the sorts of problems encountered. Several producers, including producers of exported products, reported problems importing necessary capital equipment. Also, one exporter needed Petrifilm in his production process, but reported that in sampling imports someone contaminated much of his shipment. Most importers complained about delays due to GOEIC inspections at the port. In one instance, a steel shipment built to international standards was rejected at the port.

3.4 Problems with the System

The current system fails to achieve what a good system should do and is disruptive to producers, traders, and consumers. Partially this is due to ill-conceived goals and the design and history of the system. Partially this is also due to problems with implementing the system.

The following is our analysis of the flaws in the system with specific references to what we heard and saw about standards, laboratories, enforcement, delays, etc.

The project team recognizes that multiple factors have gone into the making of the system as it currently exists, including past governmental philosophies and programs, past actions on the part of elements of trade and industry, education levels of the populace, and societal and cultural factors. The team also recognizes that change is difficult, particularly when dealing with complex systems that can affect the health and safety of the citizenry. Nevertheless, the problems delineated below present real hindrances to the further development of Egypt and need to be resolved if the country is to develop progressively both domestically and within the context of the world market.

The recommendations presented in Section 3.6 below speak to the resolution of the problems observed with the current system. Some of the recommendations can be done immediately while others are more complex, both scientifically and structurally, requiring a step wise approach to resolution. Getting to where Egypt is today has taken a long period of time; solving the problem will also take time but significant and meaningful efforts need to begin immediately.

3.4.1 Quality Confused with Safety.

Earlier sections of this report noted the development of standards by the EOS which, in turn, were often turned into mandatory standards by agencies for use in determining the acceptance of domestic, imported and exported products. It was noted that GOEIC must, by Ministerial Decree, use all EOS standards in its evaluation of imported and exported products. Appendices E and F provide list of mandatory standards for MOH and GOEIC. These standards combine elements (mostly safety elements) that are legitimate factors for use by governments in

accepting and rejecting products, both domestically and internationally traded goods. However, the EOS standards contain multiple elements (mostly quality elements) that are severely restrictive to the nature and types of products that can be produced. The EOS standards often go far beyond what, in the context of the GATT Technical Barriers to Trade (TBT) Subsidiary Agreement (attached as Appendix H, re: Article 2) is the legitimate role of governments in setting product standards.

The mandatory use of these standards, and the mentality associated with their use, that is, every product must have a standard in order to be manufactured or imported, unnecessarily restricts product variety to Egyptian consumers (stifles trade), and creates situations in which both government authorities and private businessman must be unnecessarily "inventive" to make the system work. Importantly, because such emphasis is given to product quality, resources available for helping to ensure product safety are reduced; this may actually lead to a greater level of unsafe product existing within Egypt than would otherwise be the case. (Indeed, in a review of food testing laboratories, the scarce resources and lack of adequate training given to areas such as pesticide residue analysis may lead, for example, to the importing of products with excessive pesticide residues).

It is worth noting that the mentality of requiring every product to have a standard appears to create a bias against the importation into Egypt of United States manufactured products, at least for the food sector. Several food importers noted that the failure of the United States to have standards for most foods created a difficulty in the minds of the Egyptian government import inspectors in dealing with United States products that did not fall clearly within an EOS standard. Specifically, the lack of a U.S. standard made it difficult for the Egyptian government inspector to determine how to accept the product. Importers noted that importation of European products was easier because more European countries had specific standards for products.

3.4.1.1 Examples of Standards That Confuse Quality With Safety

Figure 3.2.1.2 gives portions of EOS standards for frozen meat, cheddar cheese, ketchup, and frozen strawberries. Each of these contain examples demonstrating the confusion between quality and safety. Interesting and importantly, all also contain safety standards that most in the international scientific community would consider inappropriate; these will be noted in some cases.

Frozen Meat (Beef and Lamb).

Many of the elements for this standard are safety standards, e.g., free from antibiotics, hormones, free from visible disease, absence of bacterial pathogens, maintained frozen, etc..

Some portions of this standard, while safety related, are vague and leave room for misinterpretation, e.g., must be clean and without impurities (what are impurities and what is clean?), must have a normal appearance and texture and free from foreign odors (what is a normal appearance, texture and foreign odor is open to interpretation). Proper and consistent interpretation, gained from appropriate

inspector training is essential to avoid misinterpretation in these areas.

Portions of this standard are simply quality attributes, e.g., fat cannot exceed 7% for direct consumption, 20% for further manufacture, drip must be less than 1% by weight, total volatile nitrogen must be less than 20mg% as nitrogen. These standards have absolutely no bearing on the safety of the product and unnecessarily restrict products available for domestic production or for import.

Some portions of this standard, while dealing with safety are scientifically inappropriate. For example, most microbiologists would agree that is not possible to consistently produce a frozen meat product that is salmonella free; appropriate product handling and consumer education is necessary to handle the low incidence of this pathogen that might occur. Similarly, it is not possible to consistently produce a product that is mold negative by a viable count procedure.

Ketchup.

The standard for Ketchup is a sub-part of the standard for processed tomato products.

The Ketchup standard provides for compositional standards for solids, sugars, and acidity that frequently do not agree with standards of products produced outside of Egypt. These compositional items do not relate to safety but relate to quality attributes such as taste, texture, flavor and color. Interestingly, while Ketchup is often a standardized item in countries (including the United States), the limitations placed on Ketchup in Egypt are severely limiting. For example, Hunt's Ketchup, as currently formulated, cannot be imported into Egypt because its total sugar content (22%) exceeds the 8% requirement of Egypt.

Additionally, as with meat and almost all EOS standards, some elements are vague and subject to interpretation. Color must be natural and appropriate; must be free of off odor, etc.

The standard also says the product must be free of spoilage microorganisms. This is scientifically poorly defined, likely not be met in the absolute, and should be more properly defined in terms of storage times and conditions.

HUNT'S KETCHUP AND RED KIDNEY BEANS NOT ALLOWED IN EGYPT

Egypt's General Organization for Export and Import Control has written an Egyptian Food Importer telling the company that Hunt's Ketchup and Dark Red Kidney Beans cannot be imported into Egypt. Hunt's Ketchup contains 22% sugar which is greater than the 8% permitted in ketchup by the Egyptian EOS standard. Similarly, the dark red kidney beans do not meet the standard because they contain 0.4% fat instead of the required 4%. These standards have nothing to do with safety or economic fraud, and are prime examples of how Egyptian quality standards limit the product choice of Egyptian consumers.

Frozen Strawberries.

Again, this standard contains elements which are vague, subject to interpretation and relate to quality grade standards; e.g., must be well ripened, homogeneous, free of damaged/broken pieces, free from insect damage, should not be overripe, should be uniform in color, should have a good texture, characteristic color, and flavor. Additionally a total solids requirement is given.

While other product standards deal appropriately with product safety (e.g., pesticide residues, food additives, irradiation), all of these requirements deal with product quality and do not relate to the safety of the product. While it is unlikely that any strawberry variety would be prohibited under this standard, the standard is sufficiently vague that governmental inspectors could "interpret" the standard to arbitrarily prohibit a consignment of product. Further, one questions why government should be at all involved in assessing color, size, texture, taste; consumers are perfectly able to judge these characteristics themselves and select the quality of product they desire and can afford.

The standard also calls for the product to be free of visual mold and mold by viable enumeration. It is highly unlikely that strawberries produced anywhere in the world will be free of viable mold; if employed, this element of the standard could likely be used to prohibit almost any product from being marketed in Egypt. Rarely does a viable mold count in and of itself represent a safety hazard.

Cheddar Cheese.

As with the other standards, this standard contains quality elements that are vague (must have proper firmness, must be free from discoloration, must be free of off odors, must have normal texture, odor and taste, etc.). It also has restrictive standards (e.g., must be yellow with appropriate general color), that would prohibit certain products (e.g., white cheddar) from being marketed in Egypt.

In general, it appears, from the sampling of product standards reviewed by this team, that EOS standards more often than not contain quality attributes that often are vague and subject to interpretation and certainly are restrictive to the ability to produce and/or import and export a variety of products.

It is fair to say, however, that many countries do employ product standards to one level or another to ensure the safety of a product or to prevent economic fraud and deception. Such standards are appropriate, including the use of compositional and/or other quality attributes when such elements are needed to clearly prevent economic fraud and deception. In the judgment of the technical team, however, Egypt takes the use of quality standards to the extreme. While recognizing what the team believes to be the root cause of the situation that exists in Egypt today (quality standards growing out of system in which the

government was the both the manufacturer/purchaser and seller of goods, paternalism, and lack of trust), it is inappropriate to continue such a system.

Because the EOS standards combine a mixture of unnecessary quality standards with compositional standards which may (or may not be necessary to prevent economic fraud) and safety standards (which may or may not be appropriate), a careful review of each standard should be undertaken to determine what should be retained and what should be discarded. This process should begin immediately and should include the use and acceptance of International Norms including those of Codex Alimentarius, ISO, IDF, and CEN.

3.4.1.2 Standards Creation at the Port

EOS indicates that there is a standard for every product manufactured, imported, exported or sold in Egypt. This is a true statement as far as it goes. EOS further states that, when an EOS standard does not exist, the government authorities will use an international standard, either a standard from ISO, Codex, IDF, CEN or a standard of certain developed countries, including the U.S., the UK, France, Germany, Japan and the EU. This latter statement appears to have only limited validity.

What appears to happen is that in the absence of an EOS standard or a readily available international norm, the importer is asked to provide an "international norm" for the product. This more often than not turns out to be a producer specification for a product; such a specification has absolutely no official status. In effect, a standard is "created" for the product. This situation is clearly the result of the mentality of Egypt where one must have (and cannot believe there isn't) a standard for a product somewhere in the world. In a country where little trust is placed on the importer or other entities (including, in some cases, other government agencies), it is surprising that there is a ready acceptance of a private manufacturers production standard as a norm.

Within the context of this situation, the technical team observed that certain importers may select their products or names of their products for import, so as to avoid an EOS standard, enabling them to generate their own manufacturer specification standard and thus get the product into country.

STANDARDS CREATION AT THE PORT

When a meat spice blend arrived in the Egyptian Port of Alexandria and was submitted to the General Organization for Import and Export Control, the importer was told to provide an international standard for the product since there was no Egyptian (EOS) standard for the product. The importer provided a manufacturers product specification for the product which was then used by GOEIC to qualify the product for import. The technical team, in its interviews with food importers, found the use of such producers specifications as "international norm" to be a common occurrence. In a country where a product standard is an absolute necessity to import a product, government and private industry alike have found this approach to be a workable solution to a situation where, clearly, it is impossible to have a standard where one does not exist either in Egypt or internationally. The true solution, of course, is to eliminate the excessive use of quality standards as a regulatory tool.

3.4.1.3 Shelf Life

Egypt, by Ministerial Decree, has implemented a lengthy list of shelf life requirements for both food and non food items. We understand the penalty for violating the shelf life law is significant, involving both a LE 10,000 fine and imprisonment.

The discussion in Section 3.2.1.3 above summarizes the history of the shelf life situation in Egypt.

While it is beyond the scope of this project to evaluate the appropriateness of the shelf lives establish by EOS, it would appear that the process was an arbitrary one, based solely on the judgment of the EOS Technical Committee as to what was an appropriate shelf life based on the sensitivity of the product and the "special" situation in Egypt resulting from climatic and distribution/retail sale factors unique to the country. However, a quick review turned up several instances of shelf lives that seemed not to be logically determined. For example:

- The shelf life for soybean oil (a hydrogenated vegetable oil) is 12 to 24 months while the shelf life for "hydrogenated vegetable oils" is 3 months.
- The shelf life for flour is 9 months while the shelf life for biscuits, a flour product (with significant amounts of vegetable oil or shortening) is 1 year and that for macaroni, principally a flour product, is 2 years.
- The shelf life for tea is 3 years while that for coffee, a similar stable product is 2 years.
- The shelf life for whole grains is 1 year while that for crushed grains (which ought to be subject to a greater rate of rancidity because of their crushed nature) is 2 years.
- Granulated sugar has a shelf life of 24 months while powdered sugar is 12 months.

Based on the technical team's interviews, the import community views the shelf life issue as the archetype of the irrationality of the Egyptian import system- -standards created out of paternalism, lack of trust, and the lack of understanding of technology and the differences that normally occur between products. It is a system that unnecessarily restricts a marketing system and reduces the variety and availability of product. Penalties for violation are felt (correctly so) to be extraordinarily out of line with the adverse impact of outdated product remaining on the shelf.

Section 3.3.1.3 above gives an example, using frozen beef, of the difficulty in dealing with the shelf life issue.

THE BEEF GIVEAWAY: A SHELF LIFE NIGHTMARE

Frozen beef has a stated shelf life in Egypt of 9 months which has, by official decree, been reduced by half to 4.5 months. Additionally, the product, after clearance must have at least one-half of its shelf life (2.25 months) remaining. This leaves, at best, approximately 10 weeks after production to ship and clear a product. The Egypt shelf life requirement makes life tough for beef importers. While the 10 week shipment/clearance period is workable if no import problem occurs, it presents a major difficulty if any import problem is found with a product since the normal clearance time of 3-4 weeks can be doubled, tripled or more because of delays encountered in the MOH Import Technical Review Committee. One frozen beef importer, faced with a product classification/ labeling issue with a \$50,000 shipment, was delayed for clearance until the product had one day left on its shelf life before the product came into a violation of the shelf life requirement (one half of the 4.5 months). Quizzed by the government authority as to what he was going to do with a product with only one day to sell it, the importer said he was going to give the product away to the poor--and he did!

Correction of the current shelf life situation should be a very high priority. While the technical team does not dispute the need for shelf lives for sensitive products, especially in Egypt (indeed, shelf lives are a common control tool to ensure wholesome and quality foods and to prevent consumer fraud), the team does believe that the approach used by Egypt is inappropriate. The team believes Egypt should determine which products should have a shelf life, require the manufacturer to establish the shelf life based on the nature of its own product and its own distribution system within Egypt and under Egyptian climatic and other conditions, then provide oversight to the system. The oversight should involve requiring the manufacturer to provide supporting data for the shelf life based on consumer complaints that the product does not maintain its quality. Additionally, the technical team believes the penalty for violating the shelf life should be reduced to make it commiserate with the level of seriousness of the violation (imprisonment, for example, is inappropriate).

3.4.2 Multiple Authorities and Their Impact on the Regulatory System, Especially with Respect to Importing.

Egypt maintains a cumbersome and costly regulatory system, that often involves multiple governmental agencies ensuring the safety and wholesomeness of the same product. It's impact is most critically felt in the importing of food products; this area is the focus of this section.

As a beginning comment, the Codex Alimentarius is developing *Guidelines for the Design, Operation, Assessment and Accreditation of Food Import and Export Inspection and Certification Systems*. A copy of these Guidelines, currently in Proposed Draft stage at Step 5 of the Codex Procedure is attached as Appendix L. It is strongly recommended that these Guidelines be used by Egypt to restructure the importing system to ensure its agreement and relevance within the context of the GATT and the WTO. [Note: Additional detail on Codex Alimentarius and its Relationship to the GATT is provided in Appendix M]

Based on the technical team's extensive meetings with both government agencies and importers, multiple problems exist within the current importing system that leads to extended

clearance times, excessive loss of product, uncertainty as to what standards apply, and excessive costs resulting from container demurrage charges, port and warehouse rental charges, product loss, and labor costs involved in clearing product and resolving problems.

MULTIPLE IMPORT AUTHORITIES: WHEN IS ENOUGH, ENOUGH?

The old adage, “When is enough, enough?” should get a new airing in Egypt. Currently, each and every lot of each and every product is inspected by a minimum of three, and sometimes up to five agencies. Most products are inspected by three agencies; the Atomic Energy Organization to make sure the product is not radiation positive (a holdover from the Chernobyl incident); the Ministry of Health to ensure the product is safe (although all quality tests required by an EOS standard are also done); and, the General Organization for Import and Export control who verifies all EOS quality requirements are met. Frozen meat, seafood and dairy products are also inspected by the Ministry of Agriculture, Veterinary Medical Services to make a grand total of four involved agencies. Each agency, usually separately and independently, samples and tests the product. All test results result must agree or else the consignment is rejected. Exacerbating the problem is that every different item no matter how small the difference (e.g., blue hard candy and green hard candy when the only difference is the coloring; strawberry yogurt and raspberry yogurt when the only difference is the fruit) is treated as a separate product. Efficiencies must be gained by reducing the inspection authorities, carrying out product sampling on the basis of compliance history, and by eliminating the redundant testing of very similar products unless a problem is found.

Section 3.3.2.3. above provides additional information on the problems associated with Egypt's importing system.

3.4.2.1 Multiple Regulatory Agencies

Multiple agencies are involved in controlling imported product into Egypt. For foods, up to five agencies can be involved in the regulatory process as shown below.

<u>Product Type</u>	<u>GOEIC</u>	<u>MOH</u>	<u>MOA</u>	<u>VMS</u>	<u>MOA PPQ</u>	<u>AEO</u>
Frozen meat & poultry	X	X		X		X
Fresh fruits & veg.	X	X			X	X
Canned fruits & veg.	X	X				X
Dairy Products	X	X		X		X
Seafood	X	X		X		X
Grains					X	

Importers must not only file the regular customs documents but must additionally file import documents with each agency which is involved with the product. Fees must be paid to each agency.

3.4.2.2 Multiple Inspection, Sampling and Testing

Each agency that has jurisdiction over a product must inspect, sample and test the product. Product inspections are almost always carried out independently. The only instances where

joint inspections are carried out are those for frozen meat and poultry. The importer must be available to meet with and be present at the inspection and sampling for each agency except for the AEO which normally obtains its samples without the presence of the importer or his representative.

Each agency obtains its own samples and independently tests the product. As noted above, excessive product loss occurs as a result of this multiple sampling and testing.

Time frames for inspection and testing are "fluid," depending on workloads of the agencies. Delays of 2-4 days to inspect the product are not uncommon, particularly if an agency cannot determine what standard applies to a product.

Duplicative testing is the rule rather than the exception. Table 3.4.2.2 below is indicative of the multiple testing that occurs with imported product. While the example shown is for dairy products, the same occurs for every other food commodity. The chart does not include any testing that may be done by the MOH Nutrition Institute.

The testing situation is exacerbated by the fact that well over half of the testing done (usually two-thirds to three-quarters) is that related to quality. From a standards standpoint, if a product does not clearly fall within the scope of an EOS standard, "discussions" may have to be held with each agency to clarify how the product will be classified and handled; agreement must be reached among the agencies.

3.4.2.3. All Consignments Sampled

All consignments, independent of compliance history, are sampled. The international norm, and that recognized by Codex, samples consignments based on the compliance history of the product in relationship to the product type, the country of origin, and the compliance performance of the importer, exporter, and shipper. Egypt's approach is apparently based on a lack of trust among all parties involved, and leads to a waste of resources.

3.4.2.4. Excessive Manpower Utilization.

Import product inspection is seldom, if ever, carried out by a single inspector. Rather, a "Technical Committee" consisting of three individuals is used to inspect a consignment. This system is, again, apparently based on the "trust" factor (or rather, the lack of trust) and leads to an excessive use of manpower.

3.4.2.5. Streamlining and Efficiency Gains Needed

The import system in Egypt is unnecessarily redundant in the extreme. Determining regulatory compliance of an imported product should be the responsibility of a single agency.

Multiple inspections, sampling and testing must be discontinued. Sampling based on the

compliance history of a product should be implemented. Additionally, quality testing should be eliminated based on the recommendations given above (see quality standards as a regulatory tool above). A single agency should have the responsibility for imported product testing for foods. Similarly, a single agency should have the responsibility to examine manufactured (non-food) items. Finally, inspection "teams" should be discontinued, single inspectors used, and systems put into place to remove inspectors that violate the regulatory powers entrusted to them.

3.4.3. Lack of Transparency and Due Process.

One of the greatest hindrances to the existing quality control system within Egypt, both for imported products as well as domestic and exported products, is the lack of transparency and due process that exists in the setting of regulations. The situation is particularly acute for imported products where foreign manufacturers often have difficulty in determining what are the current regulations and even face changes in regulations between the date of shipment and the date of arrival in Egypt.

For the purposes of this report, transparency is defined as the ability to know clearly what regulations apply to a product and to know in advance the changes in regulations that will be made and the rationale for the change. Transparency also applies to the application of standards and regulations at the time of product importation; that is, that it is clear how a product will be classified and why the classification is made the way it is.

Due process is defined for the purposes of this report as the process by which laws, decrees, standards, technical specifications or any other official designation are made and implemented so that all affected parties, including citizens and private industry and their representatives, can have advance knowledge of proposed laws, decrees, technical specifications, etc., and proposed changes to them, can provide input into the decision making process, and can have a legitimate mechanism of appeal should they feel their ability to pursue lawful activity has been impaired.

How can you tell what is going on?

THE ABSENCE OF TRANSPARENCY AND DUE PROCESS

One Egyptian Government Official told a member of the project team that the only way to know exactly what is happening in Egypt regarding new regulations is to personally monitor each agency daily. A representative of a major U.S. food company indicated that the single greatest problem with Egypt was knowing what was going on. In Egypt, there is no transparency or due process. There is no requirement to notify the public in advance of a proposed new law or regulation, there is no opportunity for comment, there is no specified implementation period (it can be as short as a day) and there is no appeal process. Unless you know who to talk to, the first time you know about a rule is its publication in the *Official Gazette*, after it is a final rule. Discussions on new laws or decrees are carried out solely within government, decisions are made and government determinations are final. Achieving some form of transparency and due process is important, if only to satisfy the requirements of the GATT, to which Egypt is a signatory.

Transparency and due process are linked in that, without due process, transparency cannot occur. Currently, neither transparency nor due process occurs to a sufficient extent in Egypt as it applies to quality control aspects of domestic, imported, or exported goods.

3.4.3.1. Transparency

A representative of a U.S. based multinational food company indicated to the technical team that the single greatest problem existing within Egypt with respect to importing products was not knowing what the current regulations were. While regulations changed rapidly (part of the due process problem) there was no mechanism by which an exporter could know, from one day to the next, what specifically were the regulations that applied to his product. This created a major uncertainty that substantially increased the risk of exporting products to Egypt.

Transparency is also frequently absent at the time of importation. Unless a product fits very clearly into an EOS specification, an importer is unsure as to what standard will be applied to the product. One importer indicated that in two years of importing he has never had two shipments handled the same way; every shipment, even if contained exactly the same product as a previous consignment was handled differently. A second importer specifically commented about the extensive discussions involving interpretations of the rules that had to occur to make the system work. Yet a third importer commented about the "exceptions" that were regularly made to permit his product to be imported; in fact, a comment was made that there was, in fact, an "allotment" of exceptions that was permitted. These transparency issues create immense uncertainty, raises the risk, often increases costs, and ultimately stifles trade.

3.4.3.2. Due Process

As with transparency, due process is essentially absent in rule making in Egypt. There is no public advanced notice of rule making. While interagency communication and memoranda occur with respect to proposed law, decrees, and regulatory guidelines, these proposals are not communicated to the public. While EOS comes closest to advanced notification with its request for new standards and the existence of some (a few) private individuals on certain EOS technical committees, there is still essentially no truly public input into the EOS standards making process. Other agencies don't go even as far as EOS. In fact, more than one government regulator told the technical team that it was "inappropriate" to have public input into the rule making process since only the government had the expertise to determine what was correct and needed.

Once a rule is drafted, there is no opportunity for public comment. Additionally, there is no required time that must elapse before implementation. While implementation often occurs 30, 60, or 90 days after authorization of the law or decree, this is not required and implementation can be immediate. Cases exist of implementation within one day of announcement.

Finally, there is no opportunity for appeal. The decision of the Minister or other authority is final.

The failures in transparency and due process within Egypt do not meet the requirements of GATT and do not provide for the openness and stability that are essential for the development and maintenance of a vibrant economy.

3.4.4. Other problem areas.

3.4.4.1. Laboratory Multiplicity and Overemphasis on Quality Testing

Currently multiple laboratories within different agencies frequently do the same testing. This most often occurs with the testing of food products. For example, MOH and MOA are completely duplicative for meat, poultry, seafood and dairy products (except for drug residue and hormone testing). GOEIC duplicates what MOH and MOA are doing with respect to quality testing. EOS further duplicates the quality work with their domestic checks of products.

A review of laboratories also indicates the overwhelming majority of testing is devoted to quality rather than to safety. From two-thirds to three-quarters of the testing within the MOH and the MOA/VMS is quality related. Within GOEIC, all testing is quality related. Additionally, severe deficiencies exist in the ability of all laboratories to carry out safety testing. Within MOH, biological testing (feeding of foods to animals) is done with questionable scientific validity, apparently because adequate sensitive instrumentation needed to detect contaminants and toxins do not exist.

Within a country as small as Egypt, two things are abundantly clear:

1. There are too many regulatory laboratories doing exactly the same thing.
2. There is too much quality testing done and too little safety testing done.

It is strongly recommended that: a) quality testing be substantially reduced based on the above recommended review of the quality standards; and that b) one agency be given the authority to test imported food products. Because of the current level of capability, the technical team is recommending that MOH become the sole authority for testing imported food products. In this regard we recommend that food testing being done by the MOA Veterinary Medical Services laboratory system be transferred to the MOH; MOA/VMS testing is entirely duplicative and the capabilities of this laboratory are marginal. It is important to note, that, based on visits undertaken and a review of previous reports, no other deficiencies within MOA were noted; indeed the workings of the PPQ, grain inspection and the Central Feed Laboratory are identified as being sound.

It is further recommended that one laboratory have the sole responsibility to test manufactured (non-food) goods to ensure their safety. The technical team recommends that this be assigned to laboratories currently existing within GOEIC (although the name

should be changed).

SAFETY TESTING NOT PREDOMINANT IN EGYPT

The overwhelming majority of tests conducted on a product in Egypt are those to ensure the proper quality of the item. Well over half, most probably two-thirds to three quarters of the testing and laboratory resources used by the Ministry of Health and Ministry of Agriculture Veterinary Medical Services are devoted to quality testing; this in spite of the fact that the responsibility of these agencies is to ensure human health and safety. All of the testing resources of the General Organization for Import and Export Control are devoted to quality. The Project Team found that laboratory equipment and capabilities for safety testing for products, especially for such critical areas as pesticide residues and food additives was minimal and was usually carried out with ancient technology. It is a clear irony that, in a country that prides itself on protection of the consumer, that so little effort is really devoted to safety testing. In Egypt, because of the pervasive focus on quality, one can very likely sell an unsafe product without getting caught.

3.4.4.2 Nutrition Institute

Currently, all foods not classified as "normal" foods must be registered by the Nutrition Institute. This includes all calorie modified foods, energy foods, foods for special health purposes (e.g., diabetic foods), bottled water, medicinal herbs, infant and baby foods, and vitamin and mineral supplements. The registration process can take 6 months or more to complete and necessitates product testing.

While the Nutrition Institute has new and dynamic leadership, is in the valuable process of upgrading its' physical facilities (including its analytical laboratories), and has a valuable role to play in Egypt, the technical team does not believe that registration of most of the foods noted above are necessary. Specifically, products such as calorie-modified foods (e.g., "lite" products), bottled water, and infant and baby foods should not have to be processed through this authority; the application of safety control as appropriate through MOH should suffice. Removal of this registration and review process for these products should increase the availability of these products to the consumer, and shorten the import procedure for imported products without sacrificing product safety.

LOW FAT MAYONNAISE IS A SPECIAL DIETARY FOOD!

All foods that are not "normal" foods must go through a time consuming special registration by the Nutrition Institute (under the Ministry of Health). This registration includes calorie modified foods, energy foods (such as Gatorade) infant and baby foods, and bottled water. While such a registration is appropriate and is required for such items as foods for diabetics and foods for hypertensive individuals, medicinal herbs, and vitamin and mineral supplements, the registration for foods intended for normal consumption by people with no disease state is unnecessary. Low calorie foods that provide regular consumers with a choice of products with varying calorie levels have not proven to require exceptional government control in other countries; nor should they in Egypt. Even Evian water cannot enter Egypt under current Egyptian requirements! Such requirements are out of line with reality.

3.4.4.3. MOH Imported Foods Technical Review Committee

The MOH Imported Foods Technical Review Committee is used as an appeal committee to review products which have initially been rejected for import. From discussions with importers the bulk of these import violations are the result of labeling deficiencies.

This Committee is a major stumbling block to a smoothly operating import system. The committee meets once a week for approximately (4) hours and appears to always have a large backlog of appeal petitions to review. The Committee itself, apart from any time required for re-sampling or re-testing, is a major delay factor in reviewing and releasing (should that be the decision) imported products held for review. Importers whose product is forwarded to the Committee for review must constantly and personally monitor the Committee to determine when their product is up for review. Further, from discussions with importers, it appears that this committee often engages in arbitrary decision-making that does not necessarily have its basis in science.

This technical team recommends that the MOH Import Technical Review Committee be abolished and a different mechanism found to handle import dispute appeals. Certainly for labeling violations (which appear to be the bulk of this committee's work), direct administrative action by MOH involving re-labeling would seem to be all that is needed. The technical team believes that relief from inappropriate quality standards would resolve many additional cases automatically. While a technical committee may be needed to make judgments regarding the food safety area, this area should, in fact, be the least subject to a committee's decision making; either the product is safe, it can be reconditioned to make it safe, or it is rejected. Most countries handle such matters in a direct administrative manner without reverting to a committee's consideration of what is safe and what is not. For those few instances where a clear scientific basis for acceptance or rejection does not exist, the advice of experts retained by the agency for such evaluations can be obtained on a case by case basis. The technical team would be surprised if more than a few such instances occurred annually.

4.0 ASSESSMENT OF THE ECONOMIC IMPACT OF THE CURRENT SYSTEM.

The current system of standards and quality control contributes substantially to Egypt's reputation as a "high cost economy" and measurably reduces exports, imports, and domestic and foreign investment. Furthermore, while more difficult to quantify, the current system demonstrably reduces product quality and availability, and may inadvertently distract attention away from legitimate health and safety issues in favor of frivolous bureaucratic activity. Finally, in being at odds with the WTO and EMA agreements on TBTs and PSMs, the current system invites challenges and may soon jeopardize the opportunity for Egyptian producers, traders, and consumers to participate more fully in the global economy.

In order to assess the impact of the current system of quality control in a systematic way,

we conducted a survey of producers and traders. The survey itself aimed to document the extent to which businesses are affected by the current system and to gather estimates of increased costs attributable to the system of quality control as implemented in Egypt. These numbers were then used as first approximations for estimating the general welfare costs and export disincentives of the system. We begin with a discussion of our survey.

4.1 A Survey of the Business Community regarding the QC System

As described in previous sections of this report, Egypt's current system of "quality control" and the enforcement of mandatory technical regulations has been found to be:

- Cumbersome and confusing to the business community, reflecting multiple public sector centers of authority showing little responsibility for facilitating trade.
- Directly responsible for raising the cost of production of enterprises thereby contributing to reduced employment in some sectors and diminished investments.
- Not compatible with Egypt's international obligations under the WTO/GATT, the Taba Agreement, or the pending Euro-Med Agreement.

Aside from these general conclusions, summary statistics suggest a potentially widespread impact on the producers and traders. For example, in Egypt 25% of the tariff lines are subject to some form of mandatory "quality control" inspection, about half of which are food (World Bank, 1996). By the technical Team's count, about one in six EOS standards are listed as mandatory, and this greatly undercounts independent lists and technical specifications of other agencies. In Europe, by comparison, the number would be one in twenty.

Widespread product coverage and documented multiple inspections are undoubtedly sources of considerable paperwork and delays. In Egypt, custom clearance involves about \$600,000 of product per official per year. In Singapore, that number is \$666,000,000 of product per official. One estimate is that clearance time at Egyptian ports takes two to three times as long as any other Mediterranean port (World Bank, 1996).

But, it is difficult to measure just how widespread and important the impact of the quality control regime and the resulting technical barriers to trade are for the behavior of the Egyptian business community. So, the Team undertook a systematic survey of some of the issues involved.

4.1.1 The Survey

In an attempt to gauge the impact of the existing quality control regime on the business community, a sample survey was undertaken of a cross range of businesses operating in Egypt. This survey, which was conducted through structured interviews, was somewhat limited by time and resources. However, interesting patterns have emerged which corroborate the implications of the summary statistics and are consistent with suggestive findings of previous reviews of the QC system (USAID, 1993). The survey also recorded the consistent demands for reform voiced by

the representative organizations of the Egyptian business community.

<u>Number of Firms</u>	33	
<u>Ownership</u>		
Public	3	9%
Private	30	91%

In the selection of firms to be interviewed, the Team received some support from the Federation of Egyptian Industries [FEI], the Egyptian Chamber of Commerce [Investors Committee], and USAID/Cairo's private sector support programs through Center for International Private Enterprise [CIPE], the International Executive Service Corps [IESC], the Trade Development Corporation [TDC], and the U.S. Foreign Agricultural Service. While the sample survey was reasonably representative, it may not accurately reflect the true ownership structure of the Egyptian economy where, pending acceleration of the privatization program, state-owned enterprises [SOE] still dominate the productive sector. However, this bias of the survey was deliberate in so far as the survey was an attempt to measure the impact of an element of Egypt's managed trade regime against the demands of the market on private enterprises attempting to trade freely. Public sector firms did not have much interaction with the quality control system for the most part, although a parastatal food processor did report problems similar to the private sector complaints. Our tabulations below focus on the private sector firms only.

<u>Employment</u>		
<50	3,4,20,21,22,23 24,25,26,27	33%
50-100	1,13,14,16,29,30	20%
100-300	2,7,11,17,18,19	20%
>300	5,6,8,9,10,12,15,28	27%

The management of the firms interviewed tended to be responsible both in terms of employment and turnover of some of the largest private domestic and international corporations operating in Egypt. Again, this was a deliberate bias added on the premise that if large, powerful firms were likely to be impacted by the existing "quality control" regime, then the impact would be even greater for small and medium sized enterprises.

<u>Turnover</u>		
<\$1 million	1,3,14,16	13%
\$1-5 million	4,11,20,21,26,28	20%
\$5-10 million	2,8,13,17,18,23, 24,27	27%
\$>\$10 million	5,6,7,9,10,12,15 19,22,25,29,30	40%

Regarding enterprise-level trading patterns, the Team determined that an obvious distortion would occur if interviews were conducted largely with importers. Therefore an "export bias" was injected by the study team into the analysis of Egypt's "quality control" system to allow

the renewed GOE policy goals of export development to be fully reflected.

<u>Export Intensity</u>		
0%	2,6,18,20,21,22, 23,24,25,26	33%
<10%	1,3,4,9,16,17,19 28,29	30%
10-25%	10,11,12,27	13%
25-50%	13,14,30	10%
>50%	5,7,8,15	13%

The following results of the Team's interview survey reflect important and emerging patterns of impact that the existing quality control regime is having on the Egyptian business community. Also, the results begin to illustrate the process by which the transition from a quality control to a quality assurance system needs to emerge.

4.1.2 The Results

Not surprisingly, the survey confirmed that the cost of dealing with the current system of quality control varied across firms and across sectors. The Team asked the firms to try estimate any increased costs attributable to dealing with the system of QC in Egypt based on experiences elsewhere or on their "corporate model." Over 60% of the firms interviewed reported difficulties in dealing with the system beyond what they would usually expect as necessary delays and the contribution to costs of those impacted ranged from 5% to 90% cost increases.

Sector Issues

In order to measure more easily the impact of the QC system on the business community it was important to group the companies interviewed into broad product sectors. Roughly, the impact of the current QC system varies greatly among sectors and less so among individual firms in a sector.

<u>Apparel Industry</u>	1,11,14,15	13%
<u>Food Industry</u>		
[manufacturers]	7,8,12,16,17,18,19,20 2,4,20,21,22,23,	27%
[importers]	24,25,26,27,29, 30	40%
<u>Industrial Products</u>	5,13	7%
<u>Consumer Products</u>	3,6	7%
<u>Pharmaceutical Industry</u>	9,10	7%

As previously described a key finding of this study shows the current QC system as having a multiplicity of authority centers with no single entity having the responsibility to facilitate trade. However, the quality control and testing procedures of the major players in the system [Ministries of Health and Agriculture; the Egyptian Organization for Standardization; the General Organization for Export and Import Control; and the Atomic Energy Organization] apparently had little effect on some sectors.

Sectors Less Effected

In particular, findings of the survey reveal that:

- The Apparel Industry is now largely free from quality control and testing Procedures, though mandatory standardization may remain a *de jure* rather than *de facto* impediment.
- Those firms in the Industrial Products sector interviewed reported little or no interaction with the main players in the current QC regime.
- The Pharmaceutical Industry, which reportedly has over 25 firms active in the sector, apparently enjoys a close relationship with the relevant departments in the Ministry of Health and reports no real problems.

It may be worth noting that it is apparent from anecdotal information gathered during the survey that at the highest levels of technical competency, such as with the *pharmaceutical industry* in Egypt, a strong collaborative and facilitating relationship between the public and private sectors may be emerging.

However, regarding the impact of the current "quality control" regime on the *apparel industry* the relationship was different. The companies interviewed largely ignored any potential interference from state agencies and were not in fact interfered with by those agencies. Of much greater importance to Egypt's garment manufacturers is the need to revamp their production and marketing practices to attain the quality levels demanded by the European and North American export markets. From a purely business perspective, this sector must achieve cost savings and efficiency gains to prepare for competition on the domestic market once the remaining bans on ready-made garment imports are lifted.

The *industrial products sector* has more problematic relationship with the current QC system. According to the leading industry sources interviewed, advanced industrial enterprises in Egypt are pressing for adherence to international product standards such as ISO or the emerging CEN norms of Europe. The benefits to these firms from the introduction of voluntary standards adhering to international best practices lies with a level of *market determined protection* from "cheap imports" which need also to be underpinned by a legal system [product liability, intellectual property etc..] and a well functioning insurance industry demanding high quality product specifications. The major difficulty aired during interviews with management in this sector rests with the inability of the current QC system and, in particular the Egyptian Organization for

Standardization [EOS], to reflect accurately in Egyptian national standards rapid technological advances in industrial manufacturing or to differentiate between essential product requirements and consumer choice.

Sectors More Effectuated

Regarding the impact of the current QC regime on the food and consumer products industries, the situation as reported during the sample survey is much more serious. Specifically:

- The Processed Foods Industry, whether from an import or manufacturing perspective, has the highest level of interaction with the five key players in the existing QC system and there has been a substantial negative impact on firms' costs and performance.
- Firms in the Consumer Products Sector [non-food] also reported a numerous and often economically quite deleterious interaction with the current Egyptian system of quality control.

The fact that the existing QC regime is having the greatest impact on those sectors of industry which most directly affects the well being of the Egyptian consumer should be neither surprising nor necessarily deplored. However, what was repeatedly called into question during the course of the interview survey is the *confusion of quality standards with safety standards*. For example, handling methods in the distribution and retail channels in Egypt are often inadequate to maintain product quality both in terms of health and safety. However, it is highly questionable that the current focus of the Egyptian QC agencies on maintaining unique national standards and technical regulations on manufacturers' practices is based on either sound science or is addressing the root cause of an acknowledged problem in food handling. It was suggested as ironic that while the intention of the current QC system is to protect the health and safety of products available to the Egyptian consumer, the opposite may be the outcome. Many managers in the foods and consumer sectors repeatedly cited outdated standards and testing procedures of the current QC regime as limiting industry's ability to provide advanced technological and safety practices for the *benefit* of both the Egyptian consumer and business growth.

4.1.3 The Extent of the Impact

In the past, a number of reviews of Egypt's QC system have asserted that the implementation of procedures discriminates between those exporting from and those importing into Egypt. Business managers tended to support this assertion in the survey when asked:

Do you encounter problems or delays in securing raw materials due to Government product standards or technical regulations?

very often 52%	often 13%	not often 35%
[2,4,6,7,8,12,13,17 18,19,28,30]	[3,27,29]	[1,5,9,10,11,14 15,16]

Do you encounter problems or delays in conforming export orders to Government product standards or technical regulations?

very often 20%	often 7%	not often 67%
[4,7,8]	[16]	[1,3,5,9,11,13,14,17]
n/a [6,15,18]		

This is consistent with the Team's impression that direct export controls are less onerous than direct import controls with regard to the QC system. However, as is explored more fully in the economic analysis below, this response pattern does not mean that exporters are not adversely affected by the system and is quite consistent with the economic theory of protection which emphasizes that the impact on importers is likely to be direct and visible while the impact on exporters is likely to be more subtle and to come through hard-to-see general equilibrium channels.

A common complaint of producers and traders is the lack of transparency and predictability in the current QC system. This comes through in the survey in that the implementation of the current QC system has engendered confusion within the ranks of Egyptian managers interviewed and that the uncertainty created damaging to business growth. When asked whether they were familiar, in compliance, or had difficulties with Egyptian standards and technical regulations:

- 90% professed knowledge of the current Egyptian QC system.

[1,2,4,5,6,7,8,9,10,12,13,14,16,17,18,19,20,
21,22,23,24,25,26,27,28,29,30]

- Less than 25% stated they could comply with Egyptian standards and technical regulations.

[4,5,9,10,13,17,18]

- Over 73% encountered business difficulties in attempting compliance with the existing system of standards and technical regulations.

[2,4,5,6,7,8,12,15,16,17,18,19,20,21,22,23,
24,25,26,27,28,30]

The damage to business growth and confidence is somewhat ironic since nearly every manager, except for food importers, interviewed said that their firm:

- Had a documented quality system in operation within the company.

- Was familiar with ISO and other internationally accepted product standards.
- Either implemented or was well-versed in total quality management concepts and techniques.

There is an evident disconnection between the current QC system in Egypt and at least the leading edge elements of the Egyptian business community. Indeed, the Team was struck by the pervasive recognition by many Egyptian managers of the need for quality assurance to gain market acceptance, to ensure consumer allegiance, and to enhance business efficiency through reduced costs. However, the current QC system focuses in the opposite direction, whereby outmoded product standards or specifications which often reflect outdated technology continue to be imposed upon increasingly internationally integrated Egyptian companies.

4.1.4. The Future Plans of Egyptian Businesses Regarding the Role of Quality

Many of the managers and owners interviewed during the course of the survey have taken steps to address quality assurance issues for their customers' and companies' benefit. Specifically the survey results show that, for the subset of firms where the issue was relevant:

- Nearly 90% of all firms surveyed have instituted total quality management [TQM] practices within the company.

[1,3,5,6,7,8,9,10,11,12,13,1,15,16,17,18, 28,29,30]

- Over 50% of the firms have contracted the technical services of agencies such as the 'Center for Quality Assurance' to strengthen their production methods and management systems in their striving for better quality.

[1,3,9,10,11,12,14,15,16,17]

- Nearly 33% of the firms have begun the process of obtaining the ISO 9000 series certification.

[5,11,12,13,15,16, 28]

While it must be stressed again that the sample survey was biased toward large, outward-looking private sector enterprises, it is nonetheless striking that the leading edge of the Egyptian business community sees the current QC system as part of the problem in enhancing quality rather than a partner in the solution. This issue becomes all the more striking when the dynamics of integration and the role voluntary standards are having in Egypt's major export market --Europe-- are placed into the context of the increasing demand for quality assurance by customers in the market place.

When asked during the course of the survey of their awareness of the pending "free trade agreement" between Egypt and the European Union, over 50% of the managers professed little or

no knowledge of the development or likely impact the FTA will have on their business prospects. More surprising:

- Over 60% of the firms have not assessed the impact the FTA will have on their ability to gain or increase market access in Europe through the use of ISO or CEN voluntary product standards.
- Nearly all of the apparel manufacturers professed unawareness or inability to keep abreast of the increasing reliance on common European standards in the market place.

Two issues immediately spring to mind: [1] This sample survey's bias toward outward looking exporters should have resulted in a higher awareness level on Egypt's changing relationship with the European market; [2] The challenge of transforming the recognized comparative advantage of the apparel industry into a market based competitive advantage.

As described in the following section of this report, the increasing use of common voluntary European product, service, and production standards by most sectors of European industry and by the public sector for procurement, should be a concern of critical importance to Egyptian policy makers and the business community. The apparent absence of a deep awareness by the private sector of the impact that the EuroMed FTA may have on their businesses is alarming. This fact, coupled with a continuing apprehension of the role a revamped QC system needs to play in facilitating the business community to gain rather than lose from the FTA may bode ill for the future.

4.2. Economy-Wide Costs and Consequences

The survey largely corroborated the anecdotal evidence that the current Egyptian system of standards and quality control negatively impacts producers and traders in the economy. We were also able to gather some cost and other information that suggests the potential damage of the current system to the Egyptian economy.

4.2.1. Exports and Imports

Imports

The high costs associated with the current system fall most visibly on importers. These costs include explicit costs such as fees, lost product due to excessive sampling, extended port charges due to delays, and various informal payments, as well as substantial implicit costs due to unnecessarily rejected products, delays in getting product to market, effort diverted to clearing customs, and especially the uncertainty created by the system which must be shadow-priced in making the decision whether to import in the first place. About 25% of the tariff schedule, or 1,550 tariff lines, are subject to mandatory quality control rules. One half of these products are foodstuffs. A range of surveyed businesses in Egypt reported increased costs relative to their initial expectations or "corporate models" ranging from 5% to 90%. The additional costs were typically highest for processed food importers, but most importers had problems. And, of course,

many products are simply not imported because the compliance costs are too high, but these costs would not be reported by existing importers.

If we take unnecessary additional costs of the system be a conservative 10% for controlled manufactures and 30% for foodstuffs, note that one fourth of the tariff lines are subjected to mandatory controls, and using an import demand elasticity of 1.0, then the current system would contribute to reduced net welfare--the change in consumer and producer surplus--on the order of \$502.5 million per year, or over 1% of GDP. If we supposed that the additional costs were higher, or that more than just the imports subject to mandatory controls were affected by the system, then the static welfare costs could be substantially higher. Also, the burden on particular sectors such as processed food or consumer manufactured goods is likely to be above the average. And, for some products--including some quite prominent consumer goods with outstanding international reputations--the protective effect is essentially a zero quota as these products are not cleared for importation at all do to failure to conform to Egyptian standards.

Quantifying the costs of increased uncertainty is more difficult. Most businesses in our survey complained about unclear and arbitrary rules and procedures regarding quality control which disrupted their production process and planning. Several firms held extra-normal inventories of key imported inputs in order to deal with the quality control-induced uncertainty.

Also difficult to quantify, but quite real, are the costs of reduced product availability and variety. Some products available internationally are rejected for registration in Egypt for quality control reasons independent of health and safety or based on an application of a scientifically inappropriate standard. Also, some products are modified unnecessarily to meet Egyptian standards which thereby discourages variety in favor of uniform conformity to a set product description. One businessman speculated seriously that only about 5% of the products on European market shelves could comply with Egyptian standards. Aside from the obvious consumer welfare costs, to the extent that preferred inputs or best available technology are excluded, the reduction in product variety for intermediate goods would contribute to the costs of producing in Egypt generally.

Finally, it should be noted that the interaction of existing trade impediments with sequential trade liberalization can be important. For example, as trade increases with tariff reductions, the welfare costs of existing trade impediments like the current quality control system in Egypt will increase since the costs rise with the volume of trade.

Exports

The negative impact on exports due to Egypt's current quality control system is quantifiably substantial. Many negative effects, however, tend to be subtle and indirect. While there are a number of direct constraints to exporting from Egypt--licenses, inspections, fees, stamp duties, port delays, and so on--the quality control system per se mostly affects only a handful of food and agricultural commodities. Cotton yarn and fabric are still inspected as are about 124 agricultural products, 48 by law, usually to ensure freedom from contamination or pests and often at the request of foreign governments. Case by case complaints by exporters included such things

as three week delays in Alexandria waiting for sampling and inspections to be completed by multiple agencies. These delays increase costs to exporters due both to increased storage at the port and, for some products, reduced time before product expiry in the export markets, also. Also, for products subjected to mandatory quality control inspections, every lot of every shipment is sampled for inspection. While these inspections can be onerous for a few products--potatoes, onions, and rice--the direct negative effect of the system on exports does not appear to be significant. (There are cases, however, of products tested as satisfactory to foreign importers but rejected for export by GOEIC based on non-conformity to an Egyptian standard.)

The indirect negative effects of the current system are subtle. When import prices rise for any reason, this puts a premium on the inputs shared throughout the economy and so costs rise in all sectors, including the export sector. This then acts implicitly as a tax on exports. Thus, the current system of quality control, by raising import costs, effectively serves as a tax on exports. Operationally, the "export tax" effect can be visualized in several ways. First, many exporters rely on imports of raw materials and capital equipment. Indeed, about 80% of Egyptian imports are investment goods (26%), intermediate goods (40%), and other raw materials (13%). To the extent that exporters use these imported goods or domestically produced substitutes whose price is artificially protected by any trade barrier, the costs of inputs to exporters will be higher by the full increase in the cost of imports due to the quality control system. If these intermediate inputs and capital goods represent 60% of producers' costs, then a 5% increase in the costs of imports (20% average cost increase for 1/4 of imports) would directly contribute a 3% increase to the costs of exporters.

Waiting for the Dough

A local producer of high quality bakery and other products --including export of processed foods--encountered long delays in importing needed raw materials due to the multiple inspection system. Normal delays of a week or less were reported to be four times as long in Egypt. Consequently, the producer was forced to keep otherwise needless inventories of raw materials 30 days ahead to maintain a normal production schedule. The producer estimated that the additional holding costs alone added about 5% to his costs.

Second, to the extent that increased costs of imports contribute to the "high cost economy" -- e.g., more expensive roads and infrastructure, telephones, general communications, and so forth -- these increased costs may be passed on to exporters indirectly as users of the Egyptian economy. Also, exporters will see their costs increase to the extent that scarce inputs are shared with the now somewhat more protected import-competing sector.

Together, these effects comprise the elements that determine "tariff incidence." This is, as explained above, the idea that a tariff or non-tariff barrier which raises the cost of imports also acts as a tax on exporters to the extent that the increased costs are passed on to export producers and traders. If all goods were traded internationally, then a, say, 5% increase in the price of imports would work as a 5% tax on exports. In fact, many goods, such as services, construction, or high transport cost goods, are not traded internationally and so some of the implicit tax due to the import barriers may fall on those goods as well, reducing the implicit tax on exports.

If we continue to assume that the current quality control system raises import costs by 20% on average for the mandatory rules-impacted one-fourth of imports, then it is reasonable to assume that the implicit tax on exports is on the order of 3% to 4%. If we take the export supply elasticity for non-oil and gas exports from Egypt to be fairly elastic, since the remaining goods are mostly manufactures and semi-manufactures, then the negative exporting and employment effect could be substantial. For example, if the export supply elasticity is a conservative 3.0, then the quality control system of Egypt would be responsible for a 9% to 12% reduction in exports. In the case of significant Egyptian manufactured exports such as apparel, furniture, or processed food, however, it may well be that export supply elasticities are much higher. Also, some calculations by DEPRA economists based on CAPMAS data show clearly that in time-series data for Egypt there is a very large export supply response to real exchange rate changes, suggesting high export supply elasticities.

Another negative consequence for exports arises due to the barriers created to imports, including the trade inhibiting effect due to the quality control system. Shipping rates depend on the amount of cargo carried both inward and outward from a country. An abundance of imports may thus increase shipping arrivals and, by creating an increased supply of bottoms at the port, have the effect of driving down freight rates for exports. Since freight charges typically range from 5% to 50% of value (The average is about 10%), this can represent a significant competitive advantage to Egyptian exporters. By restricting imports, outward-bound freight rates may thus be higher than otherwise and this again adds to the implicit "export tax." The point has also been made that the uncertainty and unfavorable reputation created for unnecessarily rejected products at the ports may have the effect of raising insurance rate and thus increasing import prices and lowering export prices.

4.2.2 Investment

Investment and product sourcing decisions depend upon the perceived rate of return on the investment. The costs imposed on businesses due to the quality control system certainly lower the net rate of return generally by contributing to the "high cost economy" and especially to an investor intent on using imported inputs or producing for export markets. While we cannot quantify the magnitude of discouraged investment since the decision not to invest is a private decision, there are abundant examples where investment for production in Egypt was shunned due partially to the system of quality control.

- An international confectionery firm planned a \$15 million facility to service distribution in the Middle East and eventually to begin production. Problems and delays with importing ingredients due to the quality control system eventually led to the firm walking away from the project with a \$5 million loss.
- An instant coffee producer planned to open another factory to service the export market. But problems with importing coffee beans which were broken, normal for an instant coffee producer, developed due to a quality control standard on the intermediate raw material. The plant was eventually located in Jordan.

Also, it should be emphasized that 25% of total investment in Egypt takes the form of capital goods (World Bank, 1995). Therefore, implicit "taxes" on imports working through quality control regulations of, say, 10% would reduce investment directly by 2.5%.

More generally, Clegg (1996) has presented some preliminary econometric work which is suggestive that the economies of the EU which benefited most from between-member investment were those with compatible systems of standards and a "user-friendly" business environment unencumbered by internal administrative costs. If we extrapolate this to Egypt's prospective membership in the EMA, then the lesson would be that if standards and assessment procedures are not harmonized there is the danger that producers will not invest in Egypt, but will produce in the EU and export to the Egyptian market. Thus, failure to harmonize standards and to create a streamlined regulatory system could actually lead to a reduction in direct investment in Egypt as a result of entering into the free trade area of the EMA.

4.2.3 Technology

One cost of a mandatory quality control system arises when technology is changing faster than the standards. Thus, new or more economical techniques and processes can be discriminated against by an inflexible system. While it would be difficult to quantify this effect in Egypt, the Technical Team was told about and observed instances when second-best technology or design were being imposed on producers.

Several examples speak to the point.

- One producer had trouble acquiring the capital equipment needed for his plant, which produced goods for export, because the equipment desired was not consistent with Egyptian standards.
- An importer of an intermediate raw material was required to use a higher quality of input than was desired or necessary due to a minimum quality standard.

4.2.4 Consumer Costs

While for consumers of intermediate products -- producers and traders -- the costs of the current quality control system are reflected in reduced business activity or investment, it is important to remember that a substantial portion of the cost of the current system falls on consumers of final goods. These costs are undoubtedly quite large and go well beyond the direct increase in prices for imports, locally produced import-competing goods, and final goods which rely on imported intermediate products.

The direct costs would be captured by the increase in final goods prices attributable to the current system. Our survey and other interviews consistently substantiated increase of from 5% to 90%. The greatest increases were associated with food and especially imported food products. Since domestic prices tend to follow imported goods prices up to the extent that the products are roughly substitutes, and since food represents a large portion of most people's expenditures, the

cost of the system to the average Egyptian is likely to be substantial.

Beyond the direct "out-of-pocket" costs are the subtle indirect cost of mandated quality control. These costs arise from the inflexibility of the system and include diminished product variety and availability. For example, many products which have international acceptance among consumers cannot be registered in Egypt for sale due to failure to meet mandatory standards. Other products are not available because the cost of compliance is not worth the effort trying. And still other goods which are sold in the markets cannot offer an array of features because of the restrictions imposed by unnecessary standards or specifications. Examples range from the absence of some well-known brands of bottled water in the stores to limits on colors available in cosmetics.

4.2.5. Employment

The costs to the Egyptian economy in terms of reduced employment from the current system are two-fold. First, since there is currently unemployment at the existing wage-rate, it is reasonable to assume that reduced production due to reduced investment and trade translate into employment reductions of comparable magnitudes. Second, since imports tend to be capital intensive relative to exports in Egypt, the current system of quality control, by effectively protecting import-competing firms at the expense of export oriented firms, encourages investment in industries which do not most utilize Egypt's proximate source of comparative advantage -- cheap labor.

4.3. Missing the Market? The Cost of Delaying Standards and Harmonization in an Integrating World

There are clearly costs to using a system of standards that is not compatible with international norms. Those costs, which appear first as lost business opportunities, translate into lower growth and incomes in Egypt. In most instances, those costs are best avoided by working toward harmonization with various widely used codes and practices. However, standards tend to be something of a dynamic concept in that they are continually being developed and modified as technology and markets change. Thus, international standards such as Codex, CEN, ISO, and so on, are really part of a developing market process aimed to reduce uncertainty while preserving flexibility in the plans and expectations of producers and traders at a technical level. Increasingly, as businesses rely more heavily on standards in coordinating production and distribution, it will become important for the Egyptian business community to become a part of the standards process, both in the development of standards and in the dissemination of information concerning needs and abilities. It is important to the fulfillment of Egypt's domestic growth and export development expectations that the country not be left behind in the process.

The gains from harmonization of standards, and regulations more generally, have been documented in several studies. For example, one of the gains from joining a preferential trading arrangement, such as the EMA in the case of Egypt, emanates from a reduction in administrative costs in dealing with other members. Membership in the EMA will facilitate the harmonization or recognition of administrative requirements for product standards, testing and certification procedures, and customs documentation including that currently required by GOEIC, MOH,

MOA, and so on. In a simulation analysis of the potential gains to Egypt of EMA membership, Konan and Maskus (1996) calculate that much of the overall gain is associated with a reduction in administrative barriers. Hoekman and Djankow (1996) argue much the same in their analysis of an Egypt-EU free trade agreement, although they do not quantify the impact. Clegg (1996) argues empirically that creating an administratively friendly and harmonized business environment has been an important determinant in direct investment flows for current EU members. Roughly, the more integrated is the economy into the EU, the larger is the investment inflow into the economy. A potentially negative ramification for Egypt is the implication that if the Egyptian economy is not reasonably harmonized to the EU, then the free trade agreement which eliminates tariffs on EU exports could result in reduced investment in Egypt and product sourcing instead from EU countries.

Since part of the Egyptian growth strategy is to rely to a greater degree on international markets, it will certainly be important to coordinate rules and regulations with the other participants in the global economy. Indeed, as a contracting member of the WTO and an imminent member of the EMA, Egypt has officially committed to do just such coordination. In order to highlight the issue, we present a brief overview of developments with Egypt's closest and largest market, Europe, and with the role of standards in the EMA.

4.3.1 Egypt's European Market: Standards in the EMA

Egypt is now very close to finalizing membership in the EMA and so will take on a number of obligations of membership, including harmonization of standards and conformity assessment procedures. From a sterile reading of the two articles of the draft EMA concerning the use or harmonization of product standards and mutual recognition of testing and certification, the opaqueness of the diplomatic language used does not immediately raise either interest or particular concern. However, the agreement between Egypt and the 15 national members of the European Union may understate both the extent and the depth of challenges and opportunities this agreement will have on the Egyptian business community integrating within the wider European market.

The 15 members of the European Union have taken dramatic measures to transform the unified market into an economic and monetary union as defined in the now famous Maastricht Agreement. However, the political challenges and setbacks which often arise so visibly in the media concerning adherence to the timetable defined at Maastricht may obscure the current progress with the integration of the national economies of the wider Europe.

Among the many actions and dynamics driving this integration, the core issue of standardization may be at the forefront. The *harmonization* of the national product and services standards in Europe is now the key underpinning mechanism of the unified market. The dynamics for harmonization emanate from the business community's striving to provide businesses with:

- reduced uncertainty and levels of risk in the unified market.
- voluntary methods to facilitate compliance with the health and safety "directives" of the

European Council.

- promotion of business networks of consumers and producers through a common understanding of both essential product requirements and quality assurance.

The task for this harmonization of standards has been entrusted to the European Committee for Standardization [CEN] whose core national members [EU/EFTA] and national affiliates *define from a business perspective* the European market.

EUROPEAN MARKET

CEN National Members

Austria
Belgium
Denmark
Finland
France
Germany
Greece
Iceland
Ireland
Italy
Luxembourg
Netherlands
Norway
Portugal
Spain
Sweden
Switzerland
UK

CEN Affiliate Members

Bulgaria
Cyprus
Czech Republic
Estonia
Hungary
Lithuania
Poland
Romania
Slovakia
Slovenia
Turkey

Appendix I of this report provides a detailed description of the organization and methods of the CEN, as well as a description of the roles and responsibilities of CEN membership and affiliation. This is of critical importance to the Egyptian business community and the current public sector organizations involved in standards setting and implementation if both the threats and opportunities presented by the EMA are to be understood.

In order to place in context the economic, and more particularly the business relationships, between Egypt and Europe, some *non-oil* related trade data may be enlightening.

**Egypt's Main Trading Partners
(percent)**

<u>Year</u>	<u>CEN</u>	<u>CEN Affl.</u>	<u>EuroMed Area **</u>	<u>USA</u>	<u>Russia*</u>
<u>1989</u>					
Exports	43.6	9.5	2.4	5.0	19.1
Imports	40.5	9.0	0.6	17.6	3.5
<u>1994</u>					
Exports	49.1	5.5	2.9	10.8	1.9
Imports	42.3	4.7	0.4	16.9	0.7

Source: CAMPAS *until 1992 USSR ** Morocco, Tunisia, Israel, Jordan.

As the data show, firms operating in the wider European market are the dominant trading and business partners for the Egyptian business community. However, with increasing globalization of markets and business organizations, these trade flow data may actually understate Egypt's economic ties to the European market. The increasing dominance of Egypt's trade flows with Europe indicates *nothing* regarding the ownership or financial flows emanating from the business organizations which create the product and services represented by those flows. Global corporations of US, Asian or any other region of the world may be logically sourcing from their European subsidiaries product and services for the Egyptian market.

In any case, given the fact that foreign direct investment [FDI] in export manufacturing in Egypt is believed to be minimal, the fact that the European market accounts for nearly 55% of Egypt's non-oil exports heightens the importance that harmonization of standards in Europe is having on the business prospects for domestic Egyptian industry.

As the drive toward European unification intensifies, so will business competition both from firms within the wider European market and from direct imports. As the data above indicate, Egyptian exporters are unlikely to be in a position to diversify from the European market and their current market position will be threatened by internal and external competition. Their competitors are increasingly utilizing harmonized European standards to their competitive advantage.

Likewise, from the data below, an elementary scan from a marketing perspective would indicate that the wider European market is the rational market place for traded Egyptian goods, thus giving further impetus for Egyptian firms, joining in the process of market integration.

	<u>POPULATION</u> millions	<u>GNP per capita</u> US\$	<u>GNP</u> US\$ billion
CEN CORE	379.9	\$20,209	7,676.6
CEN Affiliates	163.0	\$ 2,514**	410.0
EUROMED Area	44.0	\$ 2,727	120.0*
EGYPT	56.4	\$ 660	37.2
USA	255.0	\$24,740	6,308.7
RUSSIA	149.0	\$ 2,340	348.7

Source: World Tables 1995 **understated *60% Israel [data mid-1993]

The choice facing both Egypt's policy makers and the business community appears crystal clear:

1. Proceed with measures to promote integration with the market of the Euro-Mediterranean sub-continent;
- OR,
2. Defend a degree of autonomy within the region and in Egypt's economic relations with the European Union.

Whatever the ultimate choice of Egyptian policy-makers, the process of integration of the wider European market will continue at the political, economic, and business levels. The deepening of the structural adjustment process and rapid economic growth in Central and Eastern Europe as well as in Turkey will probably continue apace, quickly narrowing the gap in personal incomes and purchasing power within the wider Europe. As the market grows, the use of voluntary product and service standards to guide business relations within the private sector in Europe will undoubtedly continue to rise and become increasingly a pre-requisite in many sub-sectors for doing business with firms in Europe.

Standards for Market Access

The findings of this study have suggested that the use of the standardization process in Egypt is not conducive to increased trade and growth and is not compatible with the country's international obligations in that:

- Quality standards are confused with safety standards.

- Multiple centers of authority exist regarding standards.
- There is a lack of transparency and due process.
- Cost of compliance to the Egyptian standards system is high.

As a consequence, the current Egyptian system for standardization acts as a barrier against integration of the economy and the business community into the markets of the Euro-Mediterranean sub-continent. If the system is not completely revamped and aligned with the international norms as represented by ISO guidelines and CEN processes, the Egyptian business community will likely encounter increased difficulties in accessing the markets of the wider Europe.

It may be useful, therefore, to review the basic characteristics of standardization in Europe as compared with Egypt. Appendix I provides a fuller account of the European standards setting process. Essentially, the standards of Europe are characterized by the following:

- a written document approved by a qualified body whose competency is recognized formally by public authorities and either formally or informally by the business community.
- a standard as a document which is published and made readily available to the public.
- open standards setting methods that require consensus and approval of all interested parties to the benefit of all concerned.
- standards developed for continuous use within the limits defined by technological progress to provide predictability to the greatest number of producers and consumers.
- a general non-mandatory status of standards where the regulated domain of health and safety is narrowly defined, allowing all involved in the non-regulated domain the greatest possible freedom.

It is clear from comparing the characteristics of the Egyptian and European standards setting systems above that, possibly for historical reasons, the paths of economic and administrative policy setting in Egypt and Western Europe have taken very different directions. While this has been recognized by Egyptian leaders over the last two decades, and while there has been progress in realigning the country's macro-economic framework to facilitate the development of a market oriented economy, less progress can be measured in the administrative domain of standards. This is particularly the case regarding standards setting and the all too common transformation of standards into mandatory technical regulations by the host of multiple agencies with authority in the area. However, progress is at hand in so far as the Egyptian leadership has now, following the success of other reforms, been able to recognize the incompatibility of maintaining tight administrative control of the economy and attempting to achieve export led economic growth. While the watchwords of de-control, commercialization, and privatization are as relevant to the standards setting regime as they are to the transport system in allowing Egypt's

business community access to international markets, the progress in establishing international norms and best practices in this area is only beginning to be as widely understood.

5.0. THE CONSISTENCY OF CURRENT GOVERNMENT OF EGYPT PRACTICES IN RELATIONSHIP TO COMMITMENTS TO THE WORLD TRADE ORGANIZATIONS

Before detailed recommendations are discussed, it would be useful to examine the current obligations that Egypt accepted as a consequence of its membership in the World Trade Organization (WTO). Prior to membership in the WTO, Egypt was a signatory of the General Agreement on Tariffs and Trade (GATT) Tokyo Round Agreement on Technical Barriers to Trade (known as the Standards Code or TBT). This agreement was carried over into the WTO with modifications negotiated in the Uruguay Round.

The Uruguay Round GATT Agreement resulted in the establishment of two subsidiary Agreements, the Agreement on Technical Barriers to Trade (TBT) as noted above and the Agreement on Application of Sanitary and Phytosanitary Measures or SPS Agreement. In general terms, the SPS agreement deals with the protection of human, animal and plant health. Commonly, the SPS Agreement is stated to deal with the safety of a product (e.g., pesticide residues, plant and animal diseases, food additive usages, hygiene, etc.). The TBT agreement deals with ensuring that technical regulations and standards do not create unnecessary obstacles to international trade, i.e., ensuring fair trade practices. With the food and agriculture field, the TBT agreement is generally considered to relate to product quality (as opposed to safety covered in the SPS Agreement) and includes such items as packaging, labeling and the composition of foods.

As a result of the GATT negotiations, all 114 members of the WTO are now covered by and obligated by treaty to the provisions of both the TBT and SPS Agreements. The expansion of membership to all WTO members is of significant value to the operation of the Agreement and the facilitation of international trade and investment.

Both the TBT and SPS Agreements require countries to preferentially utilize international standards except where, for TBT, the standard is an ineffective or inappropriate means for the fulfillment of the legitimate objectives pursued or, for SPS, a more stringent standard can be scientifically justified. Additionally, both agreements require countries to participate in international trade organizations to the fullest extent possible.

In addition to the WTO involvement in harmonization of standards and technical regulations, many other organizations are active in the field. One of the best known of these organizations is the International Standards Organization (ISO) founded in 1946. The membership of this organization is comprised of national standards bodies that produce draft international standards that must then be accepted by national entities. Also well known is the Codex Alimentarius, a United Nations based international standards organization comprised of 154 member countries and founded in 1962; Codex develops food safety and quality standards and codes of practice to help

ensure consumer protection and to promote international trade. The SPS Agreement specifically states that signatories shall preferentially use the standards of Codex.

It is also worthwhile to note that, for the food and agriculture sector, an understanding exists between the WTO and Codex to utilize the Codex standards relating to food product composition, packaging and labeling in resolving fair trade issue under the TBT.

Keeping in mind that food safety issues are dealt with by the SPS Agreement, product quality issues for all sectors including compositional standards for food are covered under the TBT Agreement. Since the primary concern of this project relates to the inappropriate application of quality standards as a regulatory tool, the remainder of this section deals with the TBT.

The TBT differentiates between a technical standard and a technical regulation:

The TBT defines a technical regulation as a

“Document which lays down a product’s characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labeling requirements as they apply to a product, process or production method.”

The TBT defines a standard as a

“Document approved by a recognized body, that provides, for common and repeated methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labeling requirements as they apply to a product, process or production method.”

These definitions of TBT coverage, which includes both industrial and agricultural products, deal with most of the substantive issues raised in this report. The organizational issues are not of a technical nature and must be dealt with in a manner beyond the parameters of the TBT. The following discussion will describe the TBT obligations followed by a direct application of TBT provisions to the problems identified by the Technical Team.

The TBT deals with three basic topics: preparation, adoption and application of technical regulations and standards, assessment of conformity, and information and assistance to developing countries. As mentioned before, these topics cover both industrial and agricultural goods, but not measures covered by the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). The SPS Agreement also been accepted by the Egyptian Government.

The Section of the Agreement that deals with preparation, adoption and application of technical regulations is particularly relevant to the Egyptian system of quality control. The primary focus of the obligations in this section relate to ensuring fairness in international trade, particularly by requiring that imports be treated no less favorably than the treatment accorded to domestic products.

The second requirement is that Members must ensure that technical regulations are not prepared

or adopted with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations can be expected to fulfill legitimate objectives, but not go beyond what is necessary to reach those objectives. That is to say that when there are necessary steps to be taken to achieve desired results, governments should not take unnecessary measures that disrupt normal trade and commercial practices.

The TBT offers examples of legitimate objectives which include, among other things, national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In order to determine if such requirements are legitimate the TBT offers examples of factors to be taken into consideration such as; available scientific and technical information, related processing technology, or intended end use of products. Similarly, regulations must not be maintained after the circumstances that prompted their introduction no longer exist (as in a major change in trading patterns or products traded).

Another key element to the operation of the TBT, and an essential ingredient in the initial successful negotiation of the TBT, is that where relevant standards or their completion is imminent, Members must use them, or their relevant parts, as a basis for their technical regulations. Again, there are considerations to be taken into account, including unusual geographical or climatic conditions, but these must be explained to other members on request. Such explanations can be challenged on the basis of “Legitimate purpose”, particularly in regard to the creation of an unnecessary barrier to trade.

Another important element in the TBT, and one that some members insisted upon before signing, is that all members must play a full part in the preparation by appropriate international standardizing bodies of standards for products for which they have adopted, or plan to adopt, technical regulations. This participation allows the views of members to be taken into account for what may eventually become a mandatory condition for production, trade, or investment.

In the context of the above, members must give “positive consideration” to accepting the regulations of other members if they are equivalent, even if different. This determination of equivalency should be based upon whether the regulations result in the same objectives, particularly in the area of *conformity-assessment*. This does not rule out, however, the right of a member to test the conformity of an import against an equivalent regulation to determine if the equivalencies are accurate.

An important concept found throughout the TBT, and an important element for quality control systems is that *technical regulations should be based on product performance rather than design or descriptive characteristics. Failure to observe this principle is likely to increase controversy on the issue of equivalent technical regulations that could result in formal disputes among WTO/TBT members.*

Given the Egyptian practices concerning products without established standards, the TBT section concerning such situations should be of particular interest. The TBT contains a series of procedural requirements (which are almost identical to those applicable to all sanitary and phytosanitary measures under the SPS Agreement) that must be observed.

All proposals to create new standards must be published, notified to the WTO Secretariat, and allowed a reasonable interval before entering into force. Exceptions to these procedures are made in the case of urgent problems of safety, health, environmental protection or national security.

Article 4 Annex 3 of the TBT deals with the preparation, adoption, and application of standards. A key to this process is that member governments ensure that standardizing bodies adhere to TBT obligations. These bodies must not perform their functions in a manner inconsistent with the TBT unless stated exceptions apply. As mentioned earlier, all members must participate in the development of international standards within the limits of their resources. This participation must be done by a single delegation in the international body. This requires that the central government control the full development and application process in accordance with its agreed upon obligations. Among these obligations are national treatment, most favored nation treatment, that standards/technical regulations be based on performance rather than design or descriptive characteristics, and the requirement that standards/technical regulation systems do not operate in a manner that unnecessarily create obstacles to international trade.

A further element of transparency is the requirement that members must publish a detailed work program every six months and announce this fact in a national or regional standards publication. Before adoption of a standard, interested parties have a period of 60 days to comment on the proposal. Upon request, they shall be given a copy of the draft standard for comment purposes and such comments are to be taken into account. If the draft standard deviates from accepted international standards, an explanation must be given.

Much of this report describes Egyptian conformity assessment practices. This is an important element of the TBT. For the purposes of the TBT, a conformity assessment procedure is any procedure used, directly or indirectly, to determine that relevant requirements in technical regulations or standards are fulfilled. Included as, inter alia, procedures for sampling, testing and inspection; evaluation, verification and assurance of conformity; registration, accreditation and approval as well as their combinations.

The elements relevant to members in connection with the assessment of conformity are contained in Articles 5 and 6 of the TBT. Article 5 states that:

- “(a) procedures are prepared, adopted or applied so as to grant access for suppliers of like products from other Members in accordance with the principles of national and MFN treatment. This entails a right to an assessment under the rules of the procedures, including assessment at the site of the facilities and the use of the mark;
- “(b) procedures are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. This means, inter alia, that conformity assessment procedures must not be more strict or be applied more strictly than is necessary to give the importing Member adequate confidence that products conform with the applicable technical regulations or standards, taking into account the risks non-conformity would create.

In order to bring these principles into effect, the TBT contains a number of specific practical steps:

- “(a) procedures must be undertaken and completed as expeditiously as possible, and in an order not prejudicing other Members products;
- (b) the standard processing period must be published or the anticipated period communicated; the completeness of the documentation must be promptly examined on receipt and the applicant informed of all deficiencies; the competent body must, on request, proceed as far as practicable; the applicant can inquire about the stage of the procedure, with any delay being explained;
- (c) information requirements must be limited to what is necessary to assess conformity and determine fees;
- (d) the confidentiality of information about other Members products must be respected in the same way as for domestic products and so as to protect legitimate commercial interests;
- (e) fees must be equitable in relation to those charged regarding national or third country products, taking into account costs arising from the distance between the applicant’s facilities and the assessment body;
- (f) the location of conformity assessment and the selection of *samples* must not cause unnecessary inconvenience;
- (g) a procedure used following changes in a product’s specifications must be limited to that necessary to determine whether the product still meets the technical regulations or standards;
- (h) there must be a procedure for reviewing complaints about the procedure and taking corrective action when justified”

A final element of transparency is the establishment of inquiry points in each WTO member. Such points should be in a position to answer all reasonable questions from other members and to provide relevant documentation upon request.

The TBT anticipates that mutual recognition will involve a measure of reciprocity and that negotiations must be necessary to achieve the goals of this Agreement. However this also implies that those unwilling to participate may find their interests overlooked.

The normal dispute settlement provisions of the WTO apply in regard to any issue where Members disagree.

This summary of the TBT does not include provisions relating to non-central government standards bodies because this does not appear to be at issue in Egypt.

The following are representative examples of relevant WTO obligations:

***Recommendations
(see following section)***

WTO application from TBT

6.1	N.A.
6.2	Article 5
6.3	Articles 2.2, 2.7, 2.8, 5.1, 5.2.1, 5.22, 6.1
6.4	Articles 2.7, 2.8, 5.1.1, 5.2.1, 5.2.7, 5.2.8, 5.3
6.5	Articles 2.4
6.6	Articles 2.2, 2.3, 2.8
6.7	Articles 5.2.1, 5.2.3, 5.3, 5.4, 5.5, 5.6
6.8	Articles 2.2, 5.1.2, 5.2.1, 5.2.8, 5.6, 6.1
6.9	Article 2
6.10	Articles 2.6, 11.2
6.11	Articles 2, 3, 10.1
6.12	Articles 5.2, SPS Articles 5,7,8
6.13	Articles SPS 5, 7, 8
6.14	Article 2.3
6.15	Article 5.2
6.16	Article 5.2
6.17	N.A.
6.18	Article 2.2
6.19	Articles 2.2, 2.7, 2.8

6.0. RECOMMENDATIONS

Presented below are the recommendations resulting from the findings obtained by the Research Study of the Quality Control System in Egypt.

The Technical Team recognizes that issues involved in providing governmental assurance of the safety and integrity of products produced domestically in Egypt or those imported or exported into or out of Egypt are complex and often interrelated. The Team also recognizes that the current policies and procedures relating to quality assurance have developed over many years and often reflect the political and societal values of Egypt. Nevertheless, as described above, the Technical Team believes that there are substantial changes that ought to occur within the current system in order to provide for a more dynamic and vibrant economy, to provide Egyptian consumers greater product variety and quality, and, very importantly, to allow Egypt to meet its' obligations under International Trade Agreements, especially the General Agreement on Tariffs and Trade (GATT). These changes are presented in our recommendations.

The following recommendations are accompanied by both a rationale and a time frame for implementation.

6.1. ELEVATE THE EXISTING PRIME MINISTERIAL COMMITTEE ON STANDARDS AND QUALITY CONTROL AUTHORIZED BY DECREE NO. 1193/1966 INTO A STANDING COMMITTEE WITH DEFINED POWERS AND AUTHORITY.

Time frame: By 15 July 1996.

Rationale: A body is needed to guide and direct both the short and long term process of change to be undertaken in the governmental and private sector quality control system in Egypt.

Note: A list of the Council is given in Appendix L.

6.2 UNDERTAKE A COMPREHENSIVE REVIEW OF LAWS AND DECREES RELATING TO THE IMPLEMENTATION OF QUALITY CONTROL FOR BOTH FOOD, AGRICULTURE AND MANUFACTURED GOODS. REVISE CURRENT LAW, DECREES AND TECHNICAL SPECIFICATIONS AS APPROPRIATE.

Time frame: Initiate Review by 1 January 1997. Target completion of review and revision by 1 January 1999.

Rationale: Recommendations presented in this report involve extensive and fundamental changes to both the process involved in assuring quality control and in the organizational structure required for implementation. These changes affect multiple agencies and the

interrelationships between programs. Revisions to existing laws and decrees will be needed to implement these recommendations of this report and to ensure that procedures and systems work correctly and efficiently. These revisions should be undertaken to ensure a continuity and consistency in the legal standards and requirements of Egypt with respect to quality control.

Comment: The review of laws, decrees and technical regulations should be undertaken in a manner that enables Egypt to readily utilize international norms and codes of practice. A fundamental review of procedures by which countries (including the EU, the U.S., Australia, Canada and Japan) ensure product safety and prevent economic cheating may be appropriate in this review process. The review should be undertaken through the Prime Minister's Council on Quality Control (see recommendation 1) using, as needed, an expert committee comprised of Egyptian Government officials, legal experts and representatives of Egyptian industry and consumers. Outside expert advisors, including government officials and private individuals/companies within the food and manufactured goods areas should assist the review committee.

6.3. ESTABLISH A SINGLE AUTHORITY FOR THE INSPECTION AND TESTING OF AN IMPORTED PRODUCT. FOCUS TESTING ON ENSURING PRODUCT AND SAFETY.

Time frame: By 1 January 1997.

Rationale: Imported products, especially food products, are inspected and tested by multiple governmental agencies. These multiple inspections increase clearance time, exacerbate decision making on product classification and acceptance/rejection, and increase costs. Additionally, current testing is focused on quality; it should focus instead on safety.

Comment: There is more than one model to accomplish this recommendation. For example, a single agency can be assigned the responsibility for import inspection and testing of a commodity type (e.g., Ministry of Health assigned the responsibility for inspection and testing of all processed foods). Alternatively, a single "umbrella" agency can have responsibility for the inspection and testing of all imported products. The Technical Team, for reasons primarily associated with the differing scientific expertise needed for various product types, believes assigning different agencies sole authority for different product types is the preferable route to proceed and is the basis for additional recommendations (Nos. 6.11, 6.12, 6.13, 6.14 below).

Note that a 1 January 1997 implementation date is suggested. We strongly encourage the discontinuing of multiple inspections as soon as possible. Recognizing that the final restructuring may require a time period extending beyond 1 January 1997, interim arrangements may be made to accomplish this recommendation.

The Technical Team notes that this recommendation is for imported products. The same (should it occur) can be said for domestic products; only a single agency should have jurisdiction over a given product type, including inspection of processing facilities.

6.4. IMPLEMENT "COMPLIANCE HISTORY" AS THE BASIS FOR THE FREQUENCY OF SAMPLING AND TESTING OF IMPORTED PRODUCTS.

Time frame: By 1 January 1997.

Rationale: Currently, each and every consignment of an imported product is sampled and tested irrespective of its compliance history (i.e., frequency of violation). This policy unnecessarily utilizes scarce resources to sample and test products which seldom have a compliance problem. Scarce resources can be better utilized by designing a system that bases the frequency of sampling and testing on the compliance history of the product type internationally, the country of export, the exporter, the shipper and the importer.

Comment: We suggest that this process begin immediately by ceasing routine irradiation testing for products originating from countries that have clearly shown no problem with this situation. We also suggest that a compliance history review be taken of existing products, importers, exporters, and shippers between 1 July 1996 and 31 December 1996 to determine the initial compliance histories of all products and entities. Additionally, during this six month period, a plan should be developed for the frequency of testing based on compliance history.

6.5. ACCEPT AND UTILIZE THE CODEX ALIMENTARIUS DOCUMENT PROPOSED DRAFT GUIDELINES FOR THE DESIGN, OPERATION, ASSESSMENT AND ACCREDITATION OF FOOD IMPORT AND EXPORT INSPECTION AND CERTIFICATION SYSTEMS AS THE GUIDANCE DOCUMENT FOR REVISIONS TO THE IMPORT CONTROL SYSTEMS FOR FOOD PRODUCTS.

Time frame: By 15 July 1996.

Rationale: This document, currently at Step 5 of the Codex Alimentarius approval process, is an internationally recognized set of elements that constitute a properly designed import and export inspection and certification system.

Comment: Use of this document will, by its content, require a review of the legislative framework and control programs and operations used for food import and export inspection and certification.

6.6. ASSESS THE USE OF QUALITY STANDARDS AS REGULATORY REQUIREMENTS FOR PRODUCTS WITH THE OBJECTIVE OF DISCONTINUING THEIR REGULATORY USE TO THE MAXIMUM EXTENT POSSIBLE.

Time frame: Develop a plan of work for review of all standards by commodity sector by 1 September 1996.

Initiate standards review by 1 January 1997 with revision of all standards by 31 December 1998.

Rationale: The acceptance of a product within a government regulatory system should be based solely on the assurance that the product is safe and that it does not present an economic cheat to the consumer. Many of the current requirements for the legal acceptance of a product in Egypt relate purely to quality attributes that do not relate either to safety or to economic fraud; these requirements should be deleted from legal requirements for a product.

Comment: The technical team recognizes that the separation of quality attributes from those relating to safety and the prevention of economic fraud is difficult and complex. While what constitutes safety is often easy to agree upon, what constitutes economic fraud as separate from quality attributes that should be determined by buyer/seller relationships may be difficult. For example, proper labeling and proper weights and measures are examples of *bona fide* measures required to prevent misleading or cheating the consumer. On the other hand, proper sugar or solids levels, or proper color, size, and shape are product attribute that are normally the domain of buyer/seller relationships and left to consumer preference. The Technical Team recommends that appropriate technical review committees, by product sector, evaluate each and every existing mandatory Egyptian product standard to determine which elements should be retained and which elements should be deleted based on the acceptable criteria of ensuring consumer safety and preventing serious economic fraud. The review committees should be comprised of government officials, academic professionals, private manufacturers and/or their trade association representatives selected by them, and consumer representatives. The Committees should agree upon criteria, using specific examples within given product sectors, that can be used during their review to accept or reject specific elements of standards. The Technical Team recognizes that this review needs to be undertaken in conjunction with the more fundamental review of Ministerial Law and Decrees (see recommendation x below).

6.7. RECOGNIZE INTERNATIONAL STANDARDS CERTIFICATION FOR NON-FOOD IMPORTS AND REDUCE INSPECTION LEVELS TO MINIMUM SPOT CHECKS.

Time frame: By 1 September 1996

Rationale: International standards for non-food manufactured goods such as those adopted and published by International Organization for Standardization (ISO) and the Committee for European Standardization (CEN) provide criteria for the acceptance of products that are recognized in the international community. In a similar fashion, Egypt can utilize these standards, combined with spot checks based on the compliance history of the product, importer, etc. (see recommendation 6.3 above) to accept non-food items. Such a program can immediately reduce government costs associated with import inspection and increase the availability of variety of manufactured products, including new technology.

6.8. REPLACE MANDATORY SHELF LIFE DATES FOR SENSITIVE PRODUCTS WITH MANUFACTURER'S RECOMMENDED SHELF LIFE SUPPORTED WITH APSCIENTIFIC DATA. REASSESS PENALTIES FOR SHELF LIFE VIOLATIONS.

Time frame: 1 September 1996.

Rationale: Shelf life requirements for sensitive products are appropriate. Sensitive products are those that will spoil or deteriorate (change their normal acceptable characteristics) after a specified time under specified conditions of storage. Deterioration is usually defined as a loss of normal color, flavor, and texture, or odor. Shelf life normally is applied to food products. Shelf life will vary by product type and may vary within a product type depending upon the specific ingredients, processing technique and distribution and retail mechanism. The manufacturer, with a comprehensive knowledge of the product, is best able to determine the shelf life of the sensitive product manufactured, distributed and sold by him.

Shelf life violations rarely result in an unsafe product. Spoilage that does not cause illness, or a loss of normal product characteristics is usually the result of product remaining beyond its stated shelf life date. Consequently, imprisonment and/or heavy fines are not appropriate for shelf life violations.

Comment: Shelf life should be determined within the context of the specific conditions under which the product is held and distributed. This includes special climatic conditions that may involve high heat such as that which occurs in Egypt. Also included are special distribution conditions, including extended transportation and holding requirements, and limited cooling, freezing or other situations involved in the distribution and sale of a product.

6.9. ESTABLISH DUE PROCESS AND TRANSPARENCY IN THE DEVELOPMENT AND PROMULGATION OF REGULATIONS. THIS PROCESS TO INCLUDE:

- **ADVANCED NOTICE OF PROPOSED RULEMAKING.**
- **OPPORTUNITY FOR PUBLIC COMMENT.**
- **ESTABLISHED AND KNOWN IMPLEMENTATION DATES.**
- **MANDATORY ECONOMIC IMPACT STATEMENTS.**
- **AN APPEAL PROCESS.**

Time frame: By 1 September 1997.

Rationale: Currently, individuals outside of government are unable to learn, in advance, of proposed new or amended regulations (laws, decrees, technical specifications). Further, there is no opportunity for public comment in the decision making process, no fixed implementation dates, no assessment of the economic impact that new rules may have on the business community or the consumer, and no appeal process when a business person or consumer considers the rule to be unfair and significantly adverse to their interest. These deficiencies need to be remedied.

Comment: The advanced notice of proposed rule making should require an adequate advance announcement of the consideration of a new law, decree, or technical specification; adequacy should involve public written notice in known and readily available publications, and sufficient time for both oral (though a hearing) and written comments to be submitted. Final rule making should clearly respond to all comments. Clear and fixed (by law) dates for implementation should exist, the only exception being severe and imminent danger to human health. An ability to appeal decisions, based on sound scientific, technical or legal reasons, should be available, with final decisions made by official bodies that are entirely independent from the agencies establishing the standard(s). The potential economic impact to industry, government and the consumer should be identified.

6.10. ESTABLISH THE EGYPTIAN ORGANIZATION FOR STANDARDIZATION AND QUALITY CONTROL (EOS) AS VOLUNTARY STANDARDS INSTITUTE WITH RESPONSIBILITIES FOR:

- **SECRETARIAT FOR INTERNATIONAL STANDARDS ORGANIZATIONS.**
- **DEVELOPMENT OF VOLUNTARY EGYPTIAN PRODUCT STANDARDS.**
- **IMPLEMENTATION OF THE EGYPTIAN QUALITY MARK PROGRAM.**
- **COORDINATING QUALITY ENHANCEMENT TRAINING AND TECHNOLOGY DEVELOPMENT PROGRAMS.**
- **PROVIDING PRIVATE LABORATORY ACCREDITATION SERVICES.**

Time frame: By 1 September 1997.

Rationale: While recommendation 6.6 above is planned to eliminate quality standards as a regulatory tool there will still be a vital need for Egypt to develop and maintain quality standards for voluntary use by industry. Further, there is important need for Egypt to interface with and participate in international standards organizations, including such groups as ISO, CEN and the Codex Alimentarius. EOS should fulfill both of these roles. Additionally, domestic training and technology development programs related to quality enhancement are needed. The Egyptian Quality Mark Program can also provide the basis for a quality identity for Egyptian products that could be effectively utilized to ensure that quality products are produced for both the domestic and export markets. As Egypt moves to a voluntary quality standards system, there is also need for private laboratories to assist in this area. Private laboratories are also needed to serve as reference laboratories for dispute resolution. Accreditation of these laboratories is needed and is a service that can be fulfilled by EOS.

Comment: At present, the image of the quality of Egyptian products in the international marketplace is often less than satisfactory. The EOS, though a voluntary standards program and a strengthened Quality Mark Program, can replace this image with a positive view of Egyptian product. Further, it absolutely essential that Egypt participate fully in international standards organizations and utilize these standards (and certification programs) to help ensure quality in Egyptian manufactured products. The secretariat function of EOS will be important in this regard. The EOS should also play a role in coordinating quality related training and technology development programs that enhance product quality. The transition of EOS from a developer of mandatory standards to that of a developer of and facilitator for voluntary standards should be undertaken through a formal plan of work coordinated by the President of the EOS and using special committees and advisors as appropriate.

6.11. RESTRUCTURE THE GENERAL ORGANIZATION FOR IMPORT AND EXPORT CONTROL (GOEIC) WITH RESPONSIBILITY FOR:

- **REGULATORY AUTHORITY FOR ENSURING THE SAFETY OF MANUFACTURED (NON-FOOD) PRODUCTS.**
- **PROVIDING GUIDANCE AND ASSISTANCE TO IMPORTERS AND EXPORTERS TO ASSURE THEIR PRODUCTS MEET IMPORT AND EXPORT REQUIREMENTS.**
- **ASSISTING EGYPTIAN MANUFACTURERS TO OBTAIN VOLUNTARY QUALITY STANDARDS LEVELS FOR DOMESTIC PRODUCED AND SOLD PRODUCTS.**

Time frame: By 1 September 1997.

Rationale: Other recommendations in this report assign responsibility for assuring the safety of foods. Safety of manufactured goods is also essential. GOEIC currently has the most extensive expertise and facilities needed for ensuring the safety of manufactured goods. Further, while recommendation 6.6 above is designed to eliminate quality standards as a regulatory tool, GOEIC maintains expertise in the quality control area that can be very helpful both to importers and exporters, and to the domestic food and manufacturing industry, to ensure, on a voluntary basis, that their products meet technical import/export requirements or voluntary quality levels.

Comment: The Technical Team believes that is advisable, given the changes recommended in this report, to discontinue the name "General Organization for Import and Export Control." We are recommending that the manufactured goods regulatory safety responsibilities be housed within the existing Ministry of Supply and Foreign Trade as a "Manufactured Products Safety Authority". The Technical Team understands that domestic control of manufactured (non-food) goods is currently the responsibility of the Department of Industrial Control within the Ministry of Industry. It is preferable to have only one authority responsible for the safety of all manufactured goods, domestic and imported. Discussion is needed on the final delineation of responsibility. Duplication must be avoided. We are also recommending that the quality related functions noted above be housed in an "Institute of Quality Management." The Institute would be under the direction of a Board of Directors comprised of appropriate government agency representatives and the private sector. The Technical Team sees the quality functions as requiring analytical services that can be provided by certain of the GOEIC laboratories (other than those assigned to regulatory safety testing of manufactured goods). It would be the expectation that all GOEIC laboratories transferred to the Institute for Quality Management would be privatized within a five-year time period.

6.12. GIVE THE MINISTRY OF HEALTH FOOD CONTROL DIVISION THE SOLE AUTHORITY FOR THE INSPECTION OF IMPORTED FRESH AND PROCESSED FOODS (INCLUDING MEAT, POULTRY DAIRY AND SEAFOOD) EXCEPT FOR THE FOLLOWING:

- **VETERINARY INSPECTION OF MEAT AND POULTRY (TO BE RETAINED BY MOA VETERINARY MEDICAL SERVICES;**
- **PLANT PEST AND DISEASE INSPECTION OF FRESH AGRICULTURE COMMODITIES (TO BE RETAINED BY MOA PPQ);**
- **INSPECTION OF GRAIN AND RELATED PRODUCTS (TO BE RETAINED BY MOA).**

Time frame: 1 January 1997.

Rationale: Recommendation 6.3 above recommended a single authority for the testing of an imported product. For foods, the Technical Team recommends

MOH be this single authority.

Comment: Recommendation 6.3 above also notes that there is more than one model to accomplish a single inspection of an imported product. At least one alternative to this specific recommendation (that is, that MOH be the single authority for imported food) is given in Recommendation 6.3. Options can be reviewed by the Prime Minister's Quality Control Council (or other implementing body) for the most appropriate approach to be used by Egypt. The key point is that multiple inspection and testing of imported food products be discontinued.

6.13. DISCONTINUE THE INSPECTION (EXCEPT VETERINARY ANIMAL HEALTH INSPECTIONS) AND ANALYTICAL TESTING OF IMPORTED MEAT AND POULTRY (INCLUDING ALL FRESH AND FROZEN MEAT AND MEAT CUTS, AND FROZEN POULTRY), SEAFOOD AND DAIRY PRODUCTS BY THE MINISTRY OF AGRICULTURE VETERINARY MEDICAL SERVICES AND TRANSFER DUTIES TO THE MOH FOOD CONTROL DIVISION.

Time frame: 1 January 1997.

Rationale: Recommendation 6.3 above recommends elimination of multiple inspection and testing of imported products. Currently the MOH Food Control Division has the responsibility for all food except for meat, poultry, dairy and seafood. Further, MOH, currently has the final determination of acceptance for imported foods, irrespective of the agency responsible for inspection. Because meat, poultry, dairy products and seafood is a subset of food generally, and given the ultimate responsibility of MOH regarding regulatory approval of food, the Technical Team recommends transfer of the responsibility of the above four products to MOH.

Comment: As noted elsewhere in this report, Egypt is too small a country to maintain multiple authorities for the inspection and testing of either imported or domestic product. Further, the Technical Team's site visit of both the MOH and MOA Central Laboratories (and the MOH Alexandria laboratory) indicated the MOH laboratories to be better equipped and operated than those of MOA. This recommendation is derived from these findings and considerations. The Technical Team also notes that should multiple domestic inspections of food (or other products) also occur (a situation not studied in this project), this duplication should also be discontinued.

It is also important to note that the Technical Team, based on visits undertaken during this study, and on previous reports on regulatory quality control in Egypt, believes and understands that other areas within the Ministry of Agriculture are operating appropriately; this includes the areas dealing with plant protection and quarantine, livestock inspection, and grain inspection. Therefore, this report does not review these areas in any depth.

6.14. DISCONTINUE REGISTRATION AND ANALYSIS OF CERTAIN FOODS BY THE NUTRITION INSTITUTE.

Time frame: 1 January 1997

Rationale: Certain of the foods currently required for registration by the Nutrition Institute, specifically calorie-modified foods for the general population, energy foods, bottled water, and infant and baby foods do not differ in their characteristics and function from normal foods and are not intended for special at risk populations or those suffering from a disease state. A separate registration, analysis and determination of acceptability for these products is unnecessary and should be discontinued.

6.15. ENHANCE MOH FOOD CONTROL DIVISION TESTING LABORATORIES AND INSPECTION SERVICES.

Time frame: By 31 December 1997.

Rationale: This report recommends placing additional responsibility on the MOH Food Control Division. Site visits to two MOH Laboratories indicated that enhancement to food safety analytical equipment and the training of personnel in food safety testing would be beneficial. The Technical team, from site observation, also believes training of field food inspectors, at least for imported products, would be beneficial.

Comment: The Technical Team recommends that prior to any commitment to enhance MOH laboratories, either with respect to equipment or personnel training, a complete evaluation of the capabilities and management of appropriate laboratories be undertaken and recommendations prepared for enhancement needs and the sustainability of enhancements. This evaluation should be carried out using ISO Guide 25 guidelines.

6.16. REVIEW THE NEED FOR THE MOH IMPORT TECHNICAL REVIEW COMMITTEE WITH A VIEW TOWARDS DISCONTINUING IT.

Time frame: By 31 December 1997.

Rationale: The MOH Import Technical Review Committee is the one of the major causes of delay in the importation of food products. The bulk of its work appears to involve labeling violations; these problems should be remedied administratively.

Removal of most quality standards as regulatory requirement should remove the bulk of remaining workload. Food safety violations should be able to be handled by reconditioning or re-export of product. A properly functioning food control authority should make the current import technical review committee unnecessary.

6.17. INCREASE COMPUTERIZATION OF IMPORT ADMINISTRATIVE PROCESSES.

Time frame: 31 December 1999.

Rationale: Currently, except for the customs authority, all import processes including record keeping and product classification is carried out manually using outdated carbon paper technology. Computerization would, among other benefits, speed up the import process, allow rapid access to findings by importers, allow regulators to rapidly determine the compliance history of a product or importer, and permit improved access to statistical information.

6.18. CONSIDER IMPLEMENTATION OF A "ONE STOP SHOP" IMPORT FACILITY AT MAJOR PORTS.

Time frame: By 1 March 1997 (determination of feasibility).

Rationale: A single location in which customs and all import inspection agencies are located would be convenient for importers.

Comment: This concept does not mean that all import inspection would be done by a single authority. It does mean that all authorities involved in the inspection of imported goods (foods and non-food manufactured items) would be located in a single physical facility.

6.19. ELIMINATE MEAT FAT LEVEL AS A PREREQUISITE FOR IMPORT.

Time frame: 15 July 1996.

Rationale: The fat content of meat is a purely quality item and is not related to product safety. The existence of this product standard overly restricts the availability and variety of meat products available to Egyptian consumers.

7.0. FUTURE WORK

The Team believes that an excellent and unique opportunity currently exists within Egypt for improving trade, and with it Egypt's economy and well being, that should not be missed. Senior Government Officials have expressed an openness and willingness to change the current system. Egypt's commitment to the WTO, through its signing of the GATT, and Egypt's participation in Regional Free Trade Agreements provide the legal incentive for change.

Based on the findings and recommendations presented in this report, the Technical Team notes five areas where future work in association with the Government of Egypt will be beneficial in furthering the goal of meaningful revision to the country's quality control system. We hope that action by the Government of Egypt will be taken to implement the above noted recommendations and to undertake the future work listed below.

Following review and acceptance of this report, it is suggested that a workshop be scheduled no later than October 1996 to develop an implementation plan, including specific work tasks, relative to these recommendations. Technical assistance to undertake these work items can be appropriate based on GOE commitment to reform.

7.1. Streamline the Inspection System.

Effort in this area should, minimally, involve obtaining a single inspection authority for each specific commodity (elimination of multiple inspection of product), implementing an inspection frequency based on the compliance history of a product, importer, exporter and shipper (elimination of inspection of each consignment), and implement sampling plans that link similar products (eliminate multiple sampling of essentially identical products).

7.2. Upgrade Regulatory Food Laboratories and Inspection Programs.

Upgrade MOH food laboratories with respect to equipment, analytical procedures and analyst training. As noted above, this process should begin with an ISO 25 evaluation of appropriate laboratories to assess their current analytical and management capabilities. Additionally, train inspectors to ensure representative samples in which sample integrity is maintained.

7.3. Review All EOS Standards.

As the key component in separating safety from quality elements that exist in the EOS standards used for import product inspection, a comprehensive review of each and every EOS standard must be carried out. This review must utilize technical experts knowledgeable in the quality and safety aspects of these commodities. The review team should also include individuals from outside the Egyptian system that can bring an independent judgment into the analysis in regards to what elements are important to keep from a standpoint of safety (and which safety standards ought to be modified), and what elements ought to be deleted as purely quality components, and what elements deserve a

fuller discussion.

7.4. Implement Initial Reforms in Transparency and Due Process.

Immediate changes are recommended to provide for an advanced notice to the public (including private industry) of proposed decrees and laws and an opportunity for comment (and consideration by GOE of the comments). Subsequently, attention should be focused on implementing an appeal process.

7.5. Assist in the Review of the Organization Structure, Legal Framework, and Regulatory Programs Relating to Quality Control.

Many of the recommendations presented in this report relate to a re-structuring of key components of Egypt's quality control system. Additionally, recommendation 4.2 relates to a comprehensive review of the laws, decrees and technical specifications relating to this area. The technical team believes that Egypt would benefit from expert technical assistance in carrying out these activities.

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Figures and Tables

Figure 3.1.1

**Egyptian Organization
 For
 Standardization And Quality Control**
 Organizational Structure
 May, 1996

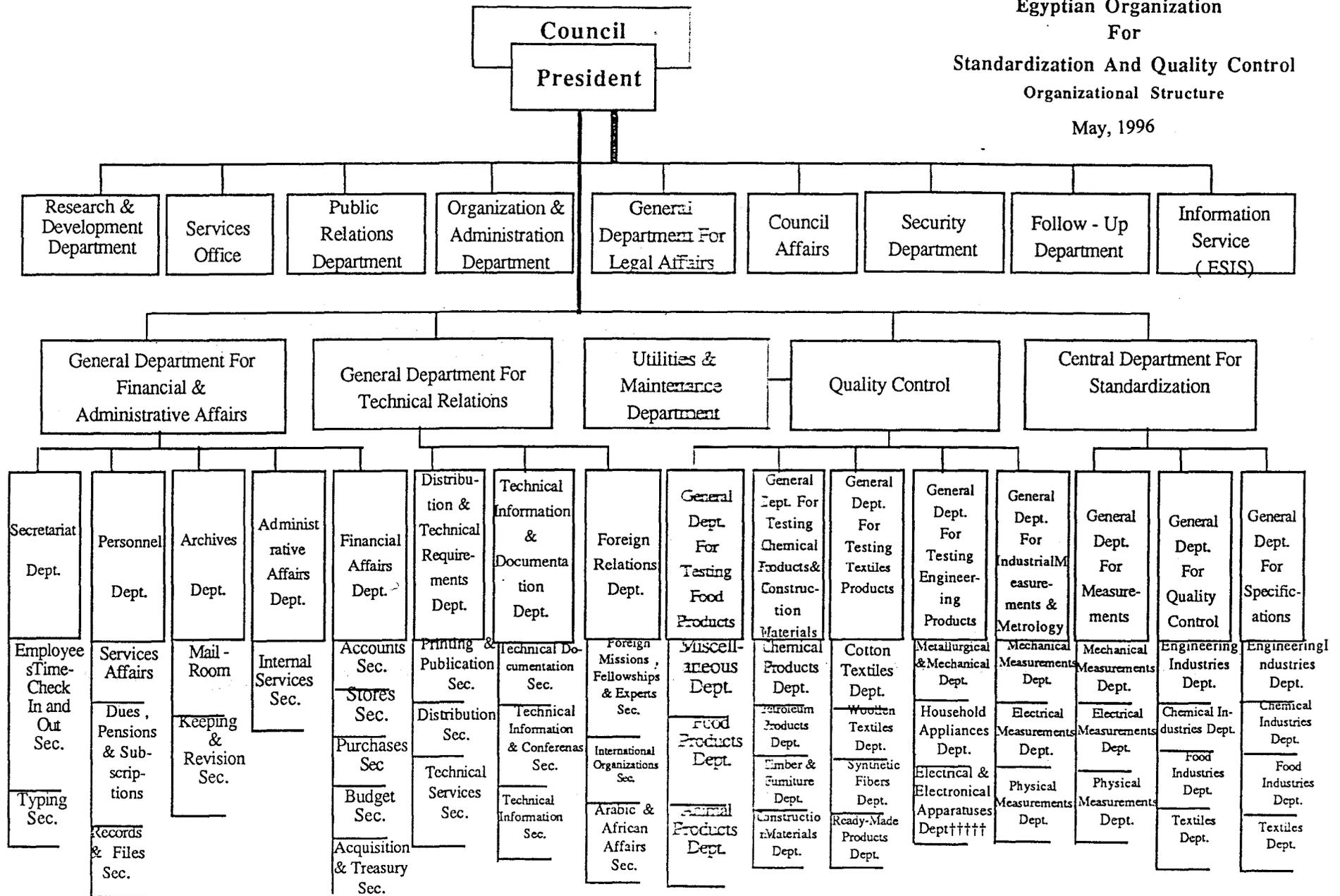


Figure 3.2.1.1A Ministry of Health, Undersecretariat for Communicable Disease, Central Administration

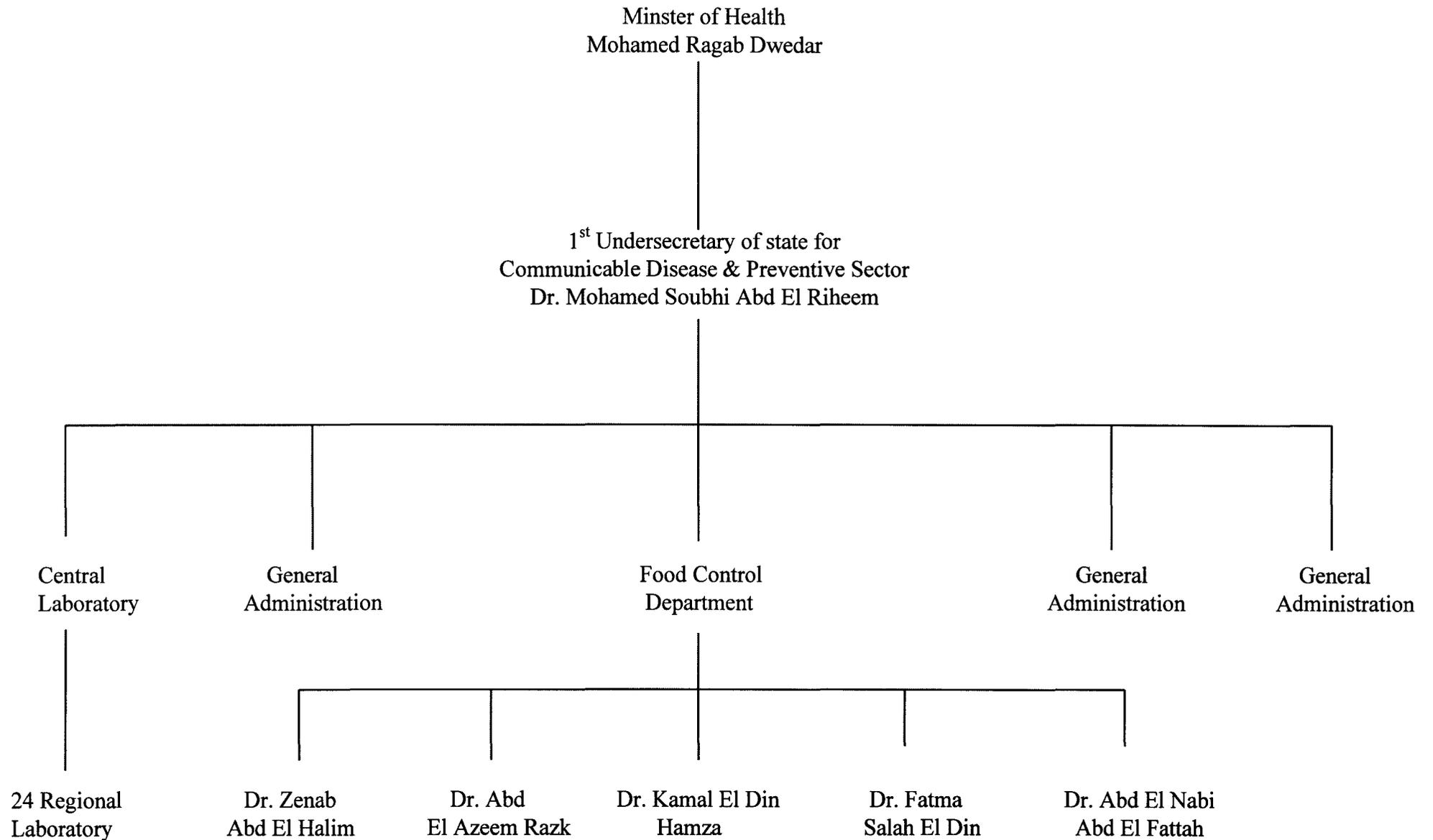


Figure 3.2.1.1B

Organizational Chart of Food Control Within Health Affairs Directorates

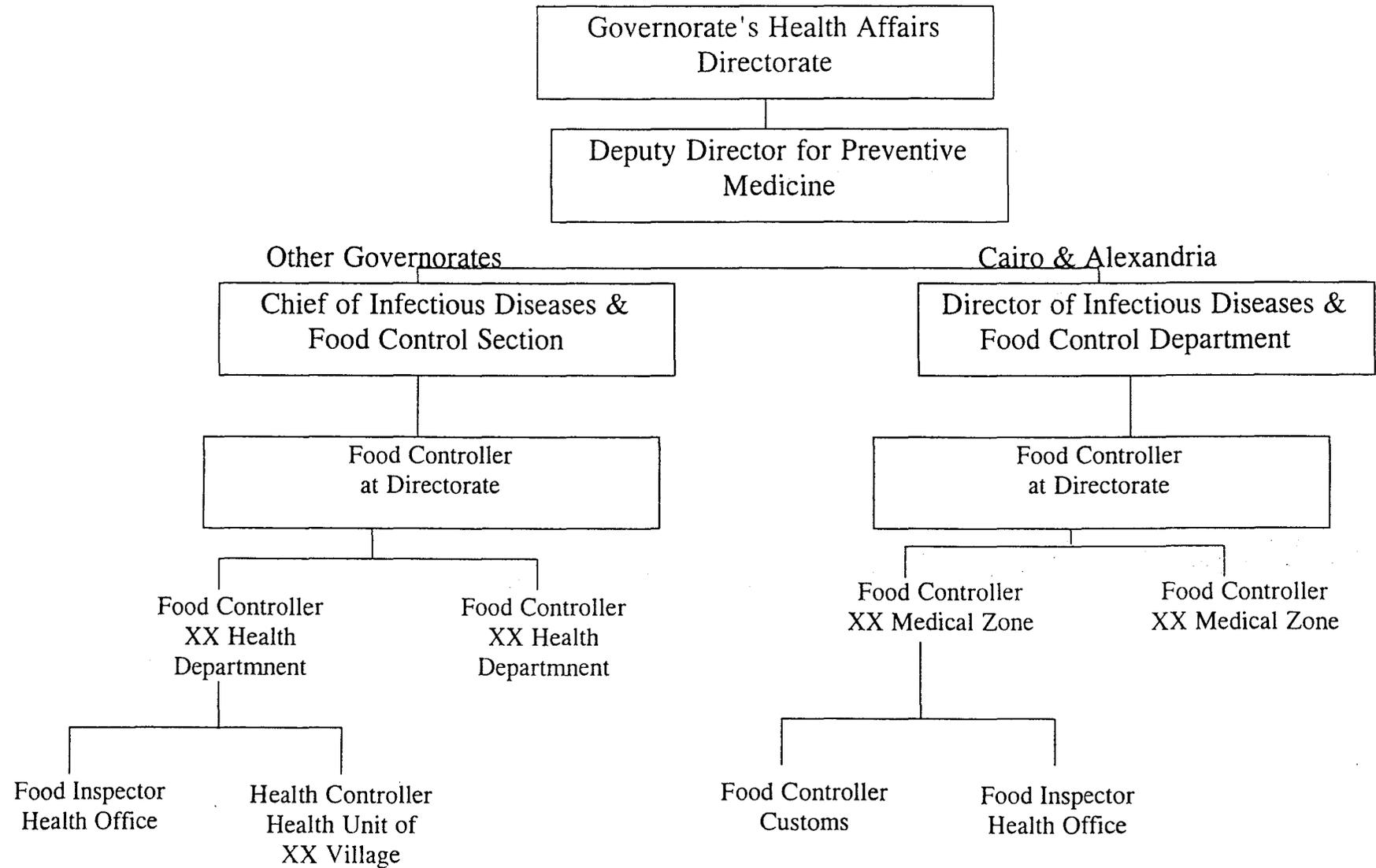


Figure 3.2.1.1C Ministry of Agriculture, Plant, Protection and Quarantine

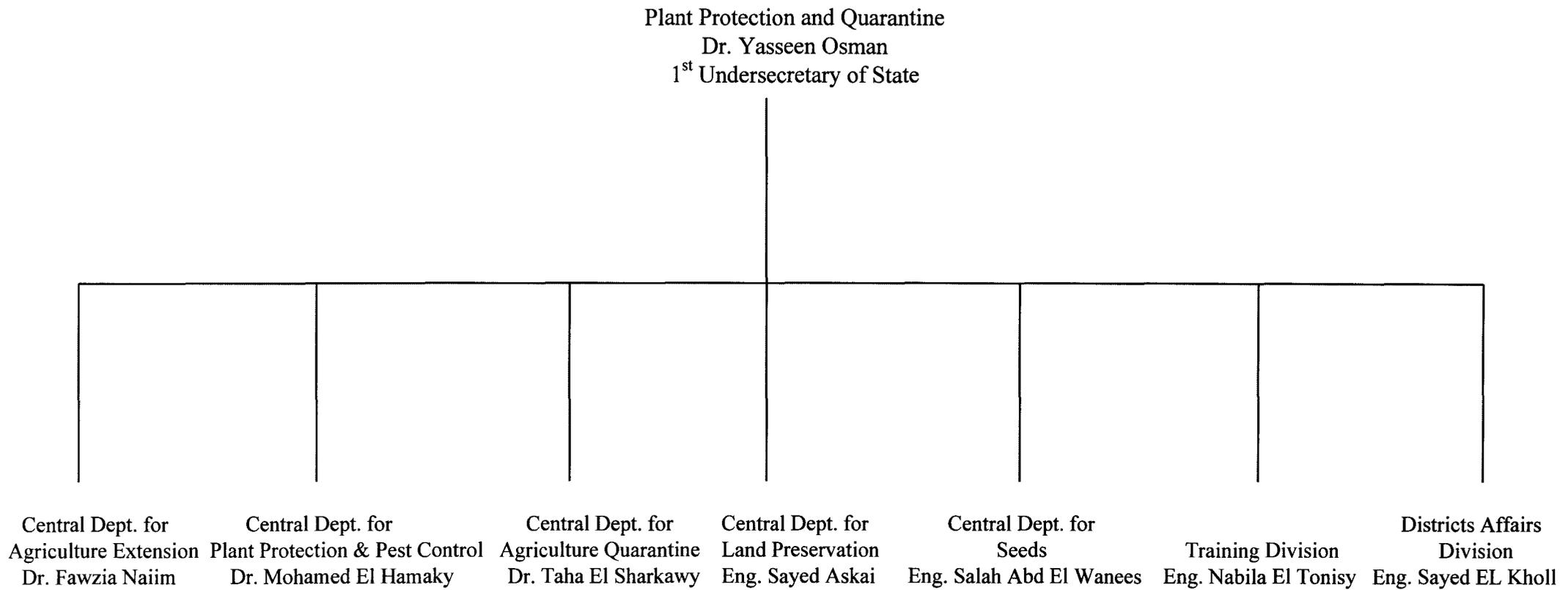


Figure 3.2.1.1D

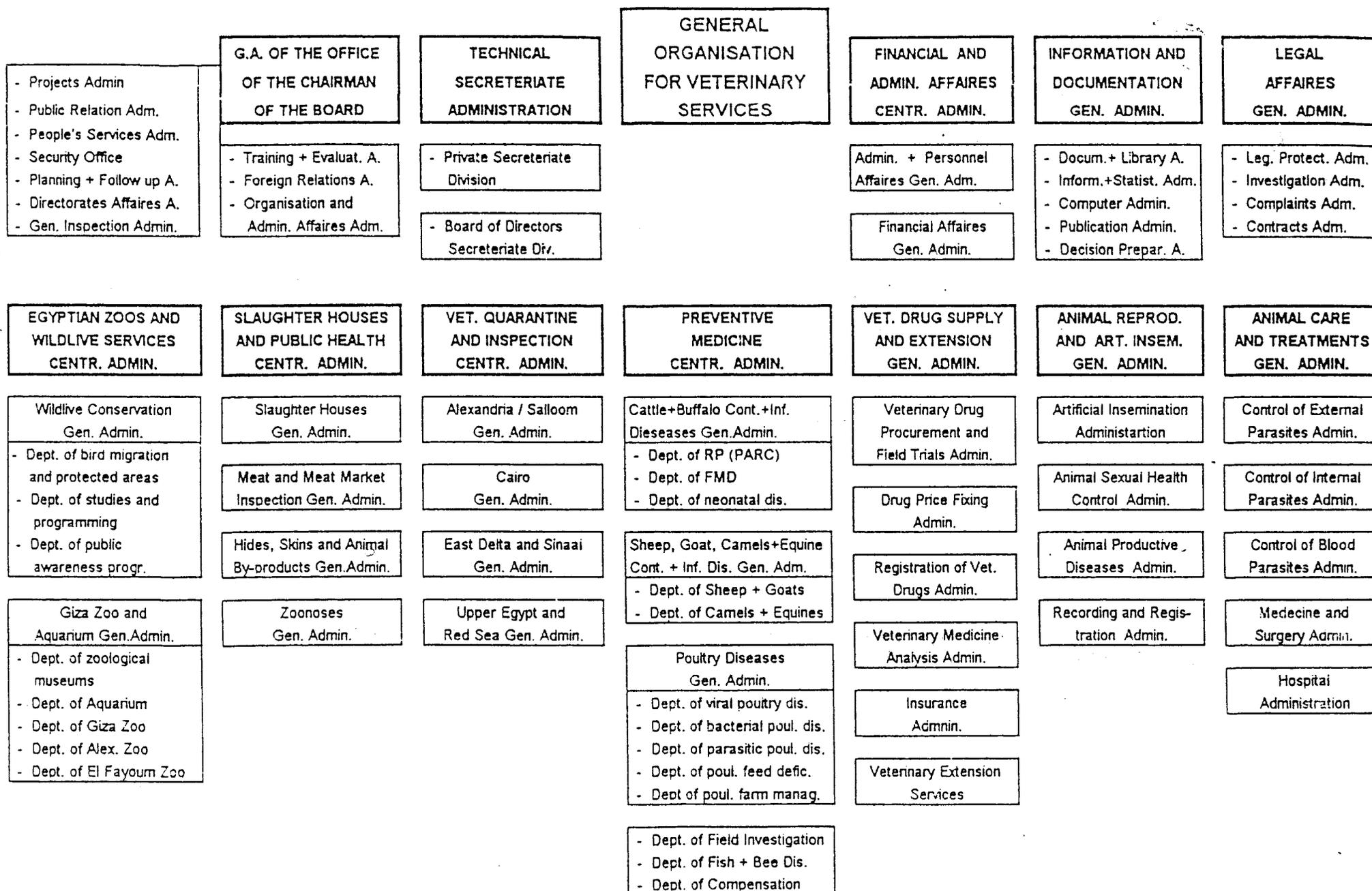


Figure 3.2.1.1E

General Organization for Import and Export Control (GOEIC) Import Control

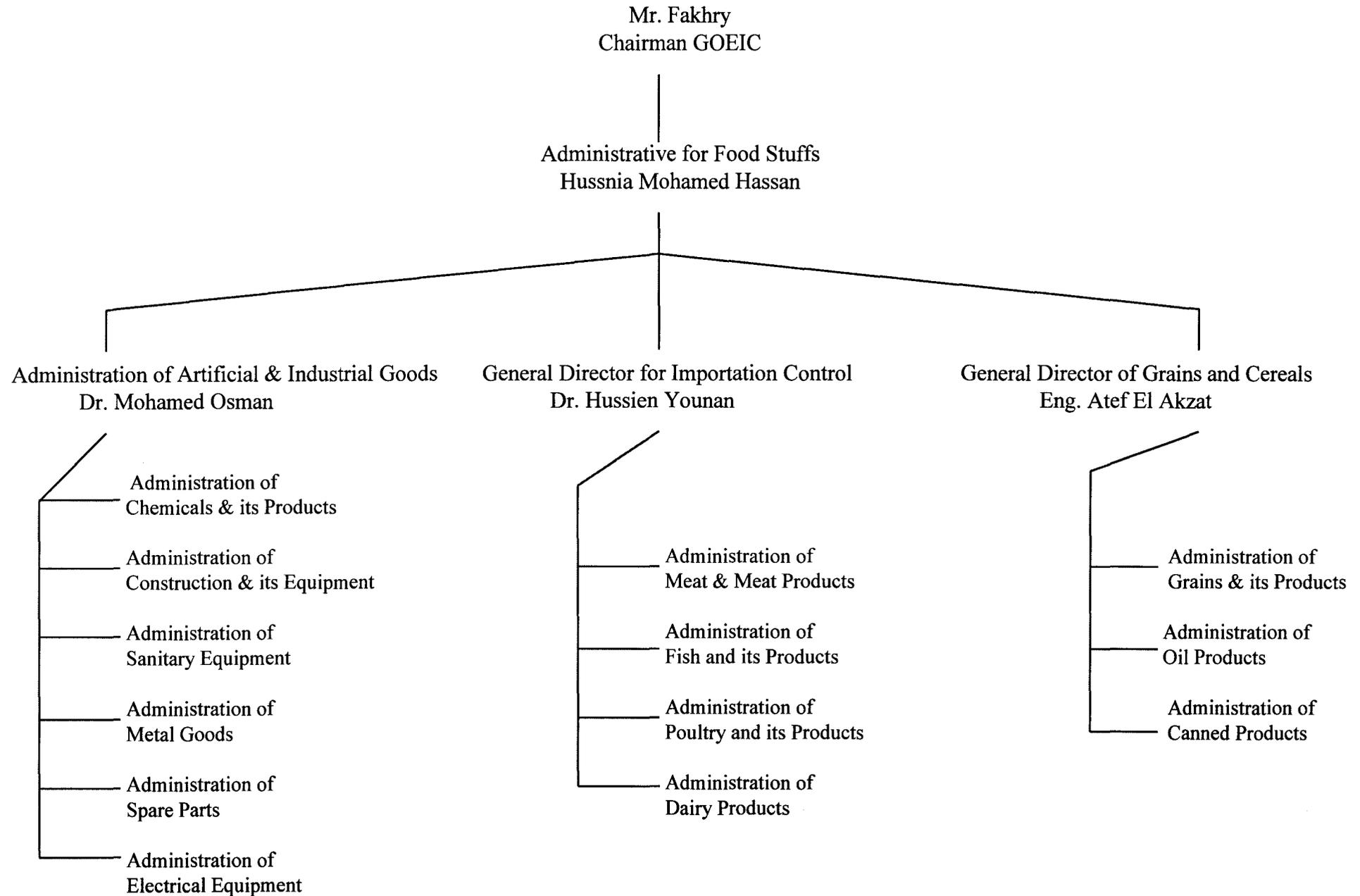


Figure 3.2.1.1F General Organization for Import and Export Control (GOEIC) Export Control

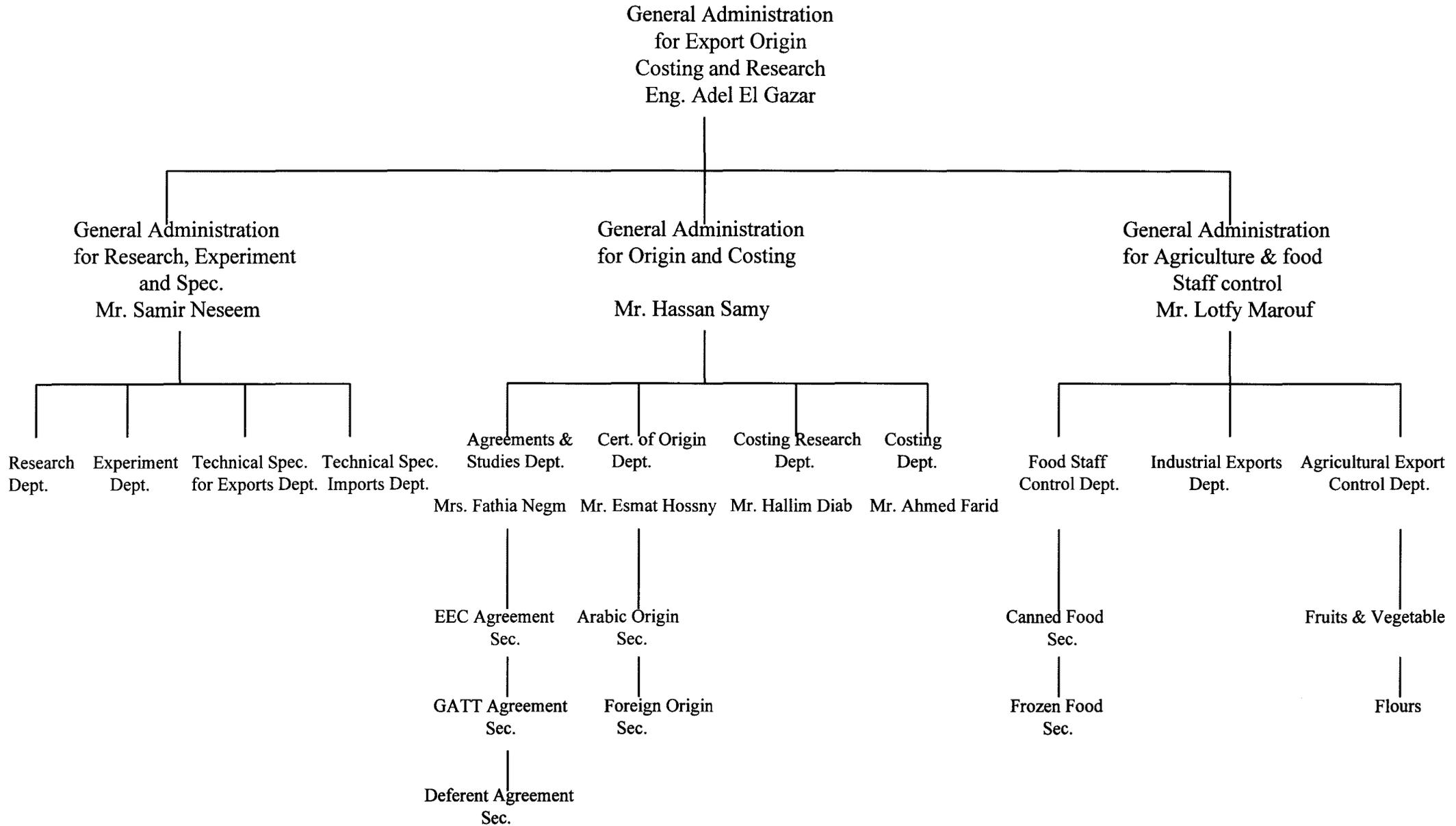


Figure 3.2.1.2. Examples of EOS Product Standards.

FROZEN MEAT (beef and lamb)

General requirements

- Must be clean and without impurities.
- Must be free from irradiation.
- Must be free from growth promoting hormones.
- Must be free from antibiotics.
- Must pass a visual veterinary inspection.
- Must meet Haalal inspection.
- Must be free from hair and skin.
- Must be free from offal.
- Must be frozen at 140C and stored at -18C or below.
- Shelf life is 9 months for beef, buffalo, camel; 6 months for lamb. Retail packs (<1 kg have 3 month shelf life).
- Fat must not exceed 7% for direct consumption, 20% if further manufactured.
- For brisket and flank, fat must not exceed 20% and shelf life is 6 months. Must use these cuts for processing only.

Specifications

- Free from freezer burn.
- Have a normal appearance and texture.
- Free from foreign odors.
- Surface of meat must not be viscous (slimy) or have signs of spoilage or damage.
- Free of pathogenic bacteria, parasites, and harmful excretions.
- Drip must be less than 1% by weight.
- Ph must be 5.6-6.2.
- Total volatile nitrogen must be less than 20mg% as N.
- Total plate count must be less than 1,000,000 CFU/gm.
- Must be salmonella negative.
- Must be shigella negative.
- Must be mold negative (viable count).

CHEDDAR CHEESE: Part of Standard # 1007, 1989 for hard cheeses as a group.

General Requirements for hard cheeses

1. Free from large gaseous holes.
2. Free from off odors.
3. Have normal texture, odor, and taste.
4. Prepared from pasteurized milk or product has received an equivalent treatment (aged 60 days or more).

5. Hydrogen Peroxide permitted to be added to raw milk for cheese making upon collection as long as no residual is present when cheese process initiated.
6. Lactic acid starter cultures permitted.
7. Can use calcium chloride, potassium chloride and enzymes (pork source not allowed).
8. Can use flavorings.
9. Can use permissible colors and preservatives per MOH technical regulations.
10. Must be free from fat other than milkfat.
11. Must be free from starch.
12. Can use permissible coatings.

Specifications for Cheddar Cheese

1. Must have proper firmness.
2. Must be yellow with appropriate general color.
3. Must be free from discoloration.
4. Small gaseous holes are permitted.
5. Must be shaped in terms of blocks or cylinders.
6. Must be coated or wrapped in transparent wrapping material that is food grade. Wax coatings can be used.
7. Fat must be >45% for full claim cheese, equal to or >35% for half fat and equal to or > than 25% for half cream cheese.
8. Moisture must be <39%.
9. Heavy metals must not exceed: Hg, 0.02 ppm, Ti, 0.25 ppm; Pb, 0.3 ppm; copper, 0.3ppm; Zn, 0.2 ppm.
10. Must be pathogen and their toxins negative.
11. Must be E. coli negative.
12. Must be free from molds and their toxins.

KETCHUP: Part of the general standard for processed tomato products, standard # 132, 1974.

Included in this general standard is juice, paste, sauce, pulp, concentrated tomato products. A general standard applies to all products with specific specifications for each individual products.

General Requirements for Processed Tomato Products

1. Color must be natural and appropriate.
2. Must be free of off odor.
3. Must be free of preservatives except for ketchup.
4. Each tomato product must be in agreement with it specific product specification.
5. Must meet pesticide MRLs.
6. Must be free from pathogenic and spoilage microorganisms.
7. Must be radiation negative.

8. Must meet the following heavy metal levels; tin, <0.2 ppm; lead, <0.3 ppm; copper, < 5 ppm; arsenic, <150 ppm.
9. Yeast and mold < 10 per/gm.

Product specifications for Ketchup

1. Total solids > 25%.
2. Total sugars < 8%.
3. Acidity, not less than 1% and not more than 2.5% as citric.
4. Product must conform to label ingredients (i.e., if salt is on label, must contain salt, if spices indicated, must contain same (by microscopic test; is vinegar added, must contain acetic acid, etc.).
5. Preservatives must meet MOH specification.

Note: for ketchup, only micro testing done is yeast and mold.

FROZEN STRAWBERRIES

General requirements (visual/organoleptic evaluation)

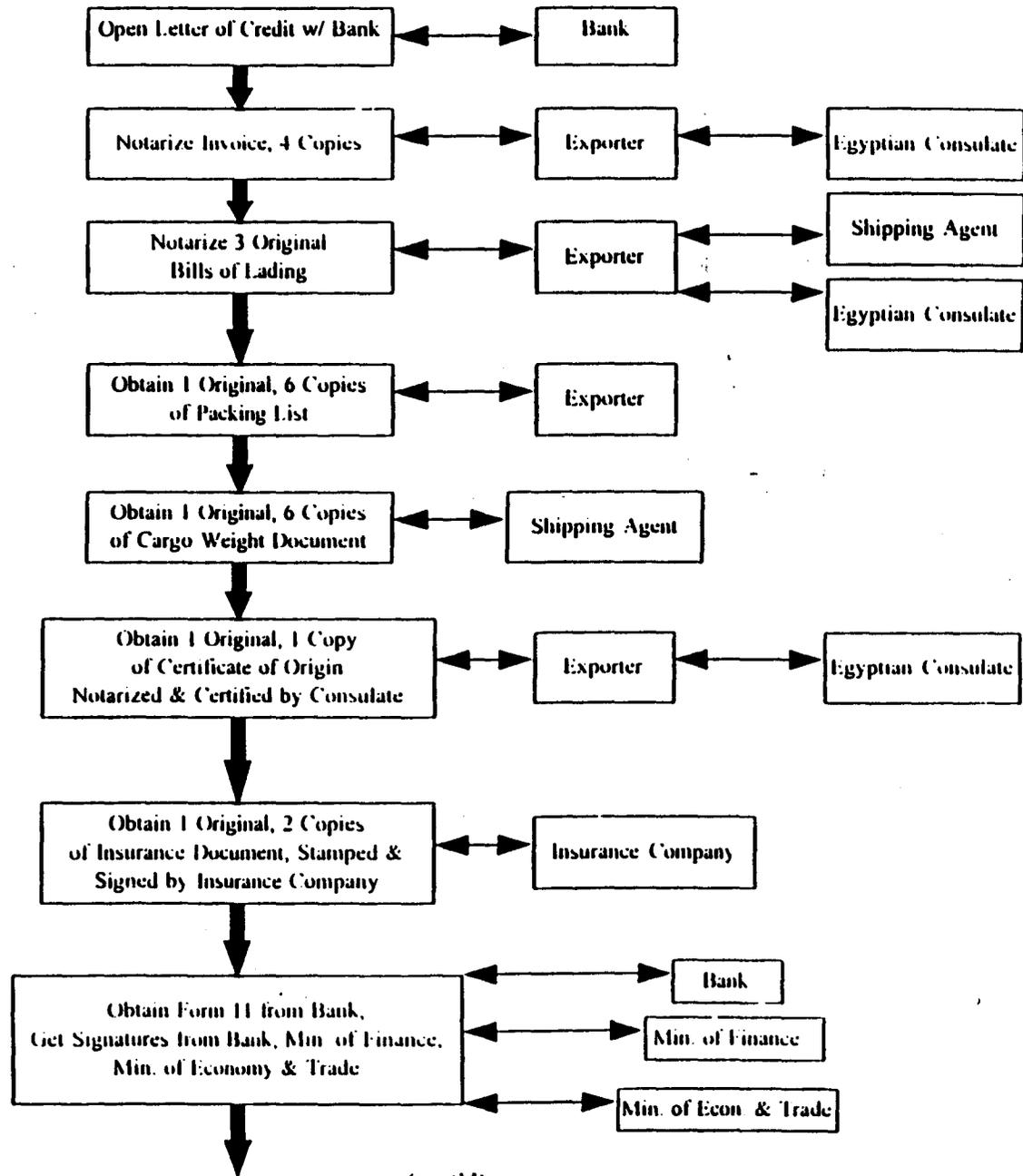
Must be well ripened, homogenous.
Must be free of damaged/broken pieces.
Must be free from insect damage.
Should not be overripe.
Should be uniform in color.
Should be free from foreign plant material.
Should have a good texture, characteristic color, and flavor.
Nutritive sweeteners can be added (sucrose, glucose, dextrose).
Ascorbic acid and citric acid can be added according to need.
Should be free of other preservatives and colorants.

Specifications

Total solids requirement given.
Should be free of extraneous material (i.e., dirt, sand).
Total bacterial count not to exceed 10,000 CFU/gm.
Total coliform count not to exceed 10 CFU/gm.
Free of pathogenic bacteria.
Free of mold (both visual and by enumeration).
Meet pesticide MRL requirements.
Must be irradiation negative.
Heavy metal (Pb, As, Sn) limits given.

- a) Product standards include labeling and packaging requirements not shown here.

Figure 3.3.1.3 Road Map,
 Import Procedures
 Pg. 1 of 5



(cont'd)

Figure 3.3.1.3 Road Map,
 Import Procedures
 Pg. 2 of 5

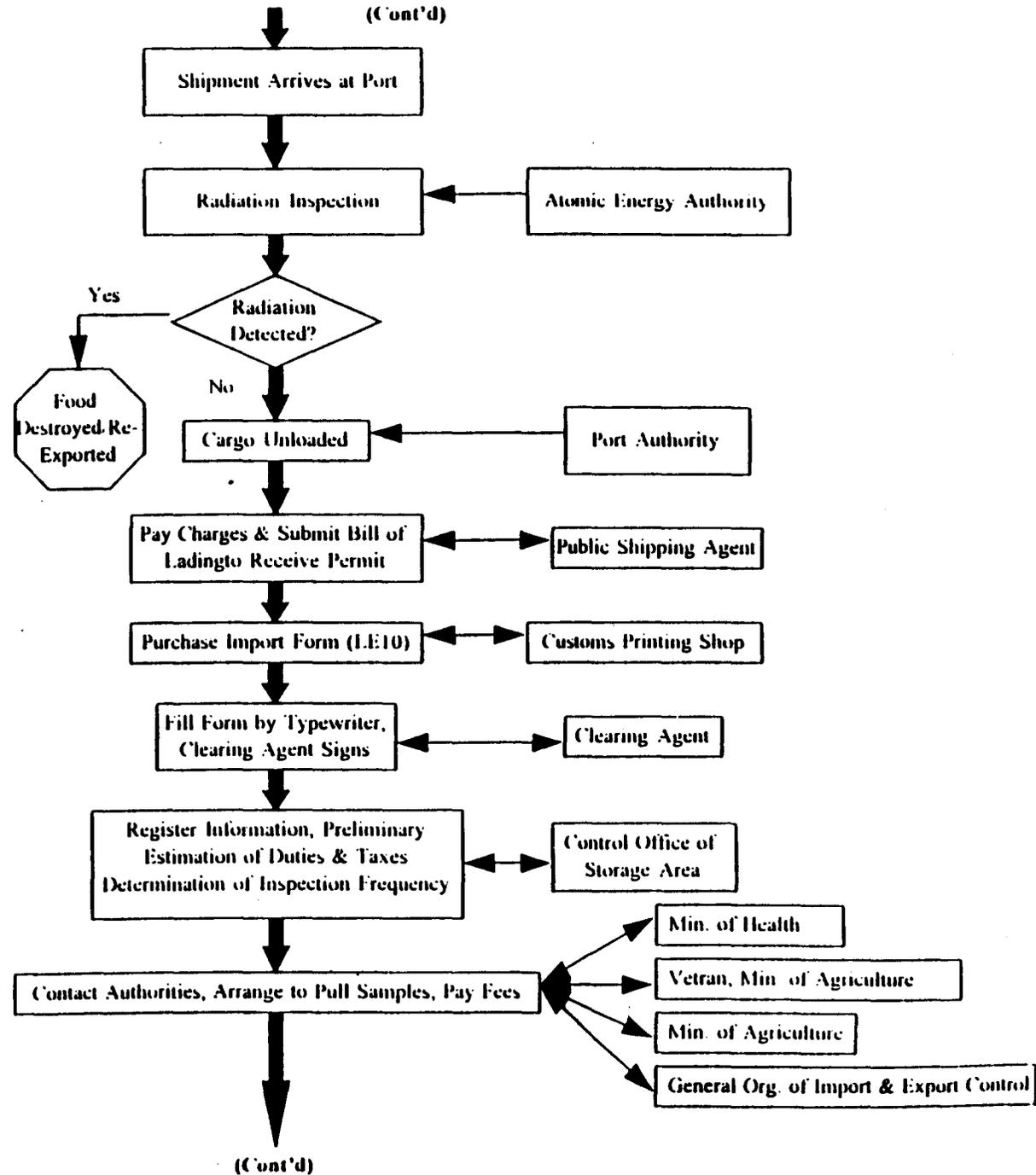
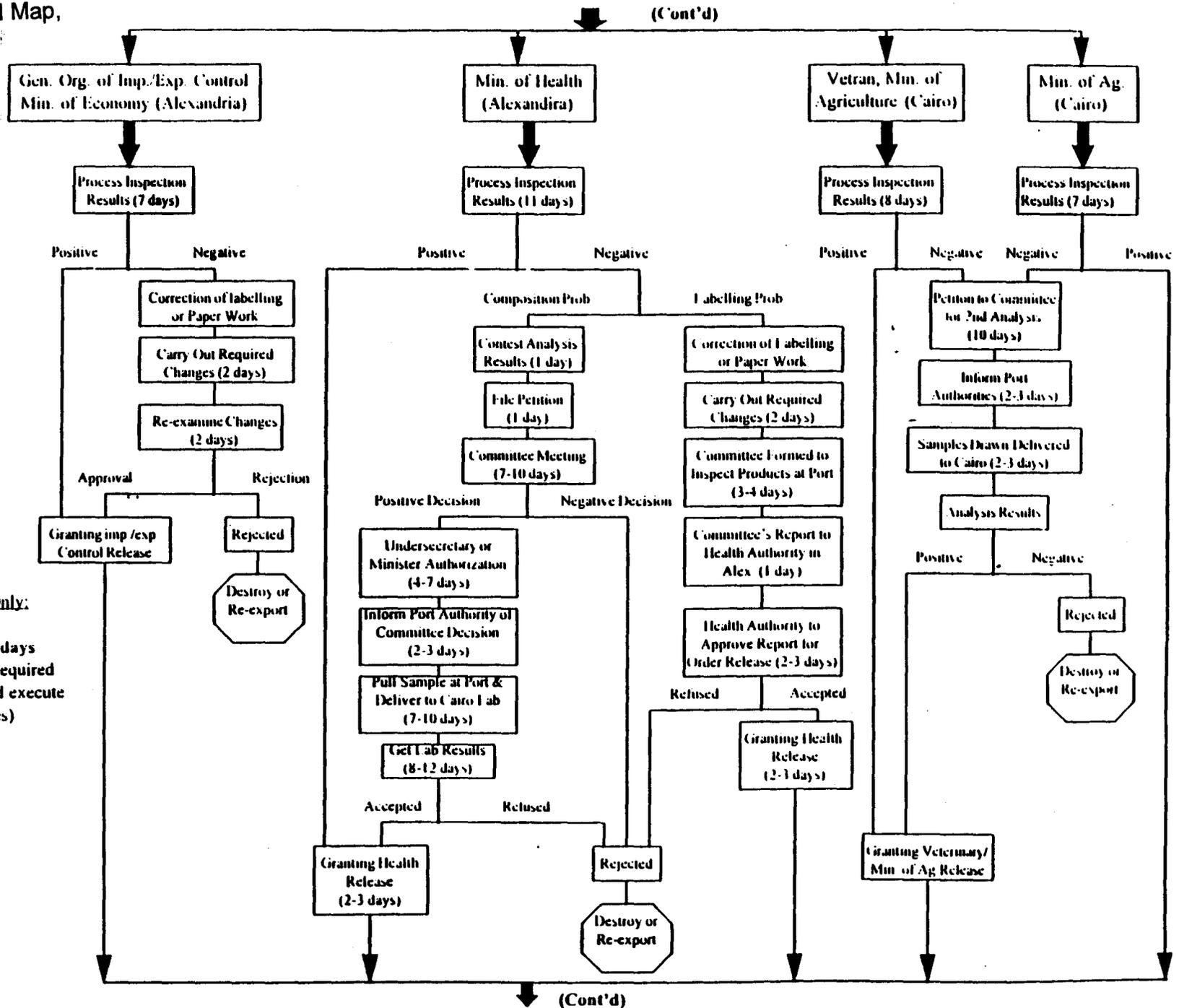


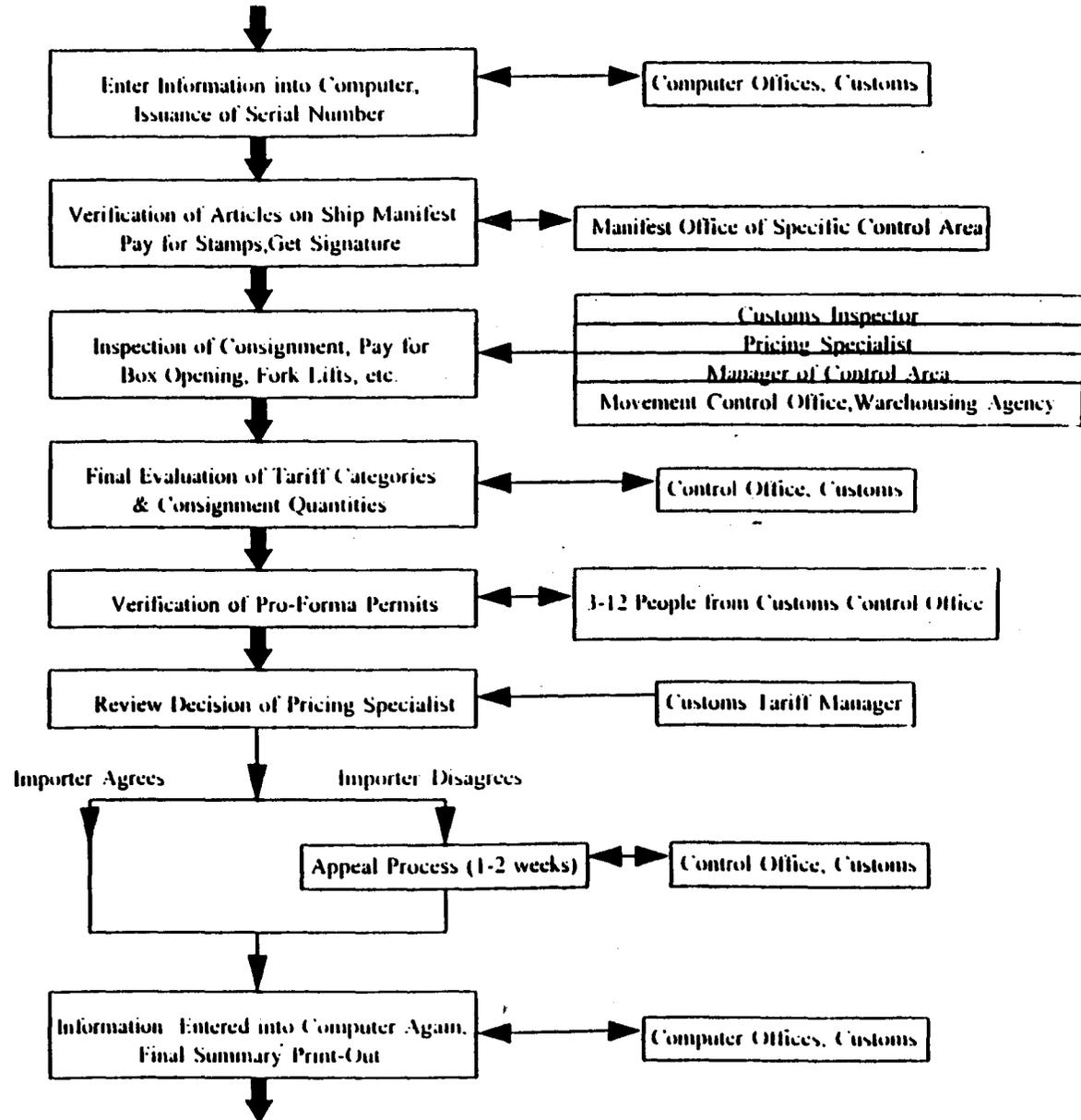
Figure 3.3.1.3 Road Map,
 Import Procedures
 Pg. 3 of 5



**Required Time
 for Inspections Only:**

11 - 62 working days
 (excluding time required
 to arrange for and execute
 pulling of samples)

Figure 3.3.1.3 Road Map,
 Import Procedures
 Pg. 4 of 5



(Cont'd)

Figure 3.3.1.3 Road Map,
Import Procedures
Pg. 5 of 5

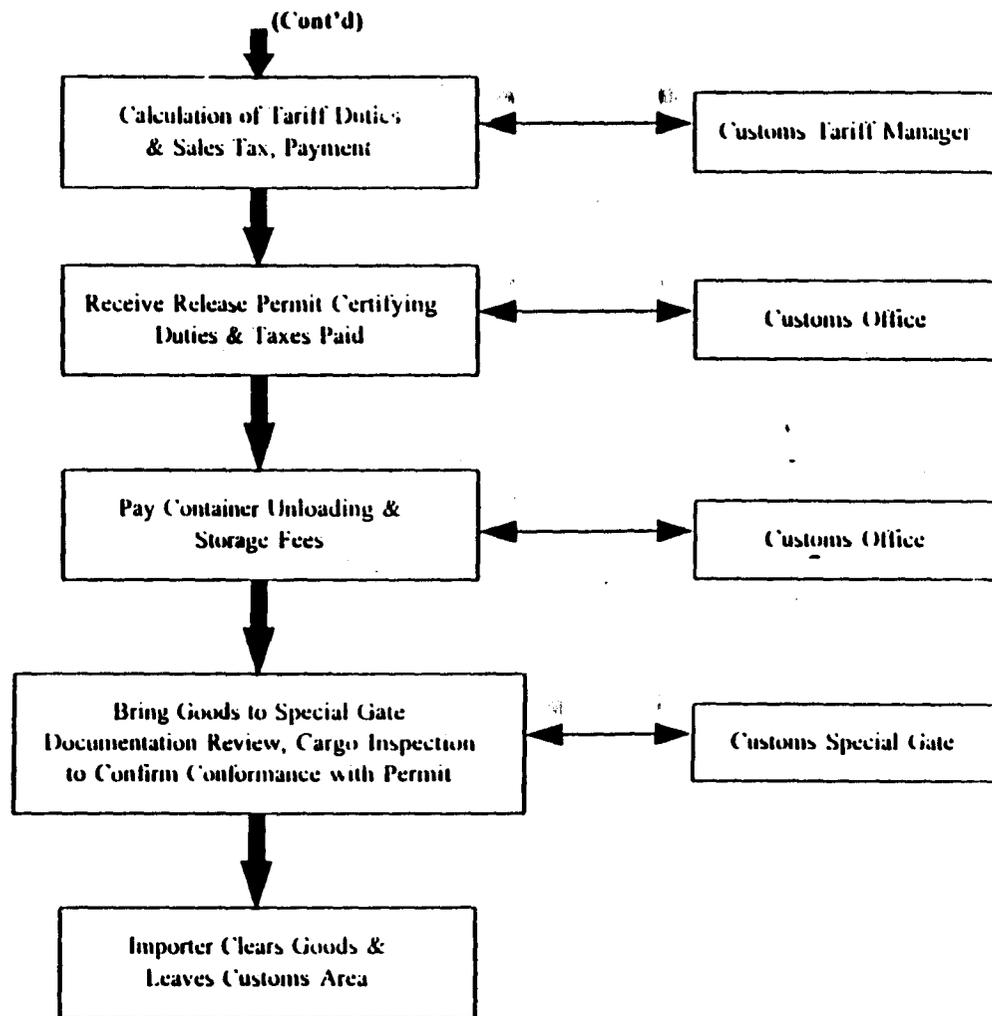


TABLE 3.4.2.2 OVERLAPPING TESTING RESPONSIBILITY

GENERAL PRODUCT TYPE: DAIRY PRODUCTS (MILK, CHEESE, ICE CREAM).

<u>TEST TYPE</u>	<u>GOIEC</u>	<u>MOH</u>	<u>MOA-VET. MED.</u>
PERCENT FAT	X	X	X
PERCENT MOISTURE	X	X	X
PERCENT SOLIDS	X	X	X
PERCENT SOLIDS NOT FAT	X	X	X
TOTAL BACTERIAL COUNT		X	X
COLIFORM COUNT		X	X
PATHOGENIC BACTERIA		X	X
ANTIBIOTICS		X	X
GROWTH PROMOTING HORMONES			X
HEAVY METALS		X	X
TOXICOLOGY (PESTICIDE RESIDUE)		X	X

NOTE: ALL LOTS ARE SUBJECT TO TESTING IRRESPECTIVE OF COMPLIANCE HISTORY OF PRODUCT, COUNTRY, IMPORTER, EXPORTER OR SHIPPER.

Development Economic Policy Reform Analysis Project

Final Report

**RESEARCH STUDY OF THE
QUALITY CONTROL SYSTEM IN EGYPT**

VOLUME II: APPENDICES

Prepared For
The Government of Egypt

Submitted To
USAID
Economic Analysis/Policy Office
Cairo, Egypt

Submitted By:
Nathan Associates Inc.

Under
Contract # 263-0233-C-00-6001-00



July 1996

APPENDIX A

Selected Egyptian Product Standards

ARAB REPUBLIC OF EGYPT

ES: 2368 - 1993

**UDC: 634.75: 664.8
037.5**

EGYPTIAN STANDARD

2368 - 1993

FROZEN STRAWBERRIES

EGYPTIAN ORGANIZATION FOR STANDARDIZATION

FROZEN STRAWBERRIES

1. Area

These standards cover the general and special quality attributes relating to quick frozen strawberries that are prepared for direct consumption.

2. Definition

Frozen strawberry fruits are the product prepared from fresh, clean unblemished and mature fruits. After the removal of caps, the fruits are cleaned and quick-frozen in an appropriate manner.

3. General conditions

- 3.1. Fruits must be mature, free from defects, homogenous, unbroken, free from caps (calyxes), bruises, decays and insect damage.
- 3.2. Fruits must not be overmature and should be free from uncolored fruits
- 3.3. Fruits must be free from stems and its residuals and foreign leaves
- 3.4. Fruits must have a coherent texture and maintain its distinctive natural characteristics.
- 3.5. The following saccharides may be added:
 Sucrose, dextrose, glucose and fructose. If the saccharide was in the form of syrup, it should only cover the fruits and fill in the gaps among the fruits.
- 3.6. Ascorbic acid and citric acid may be added in line with good manufacturing practices
- 3.7. The product must be free from preservatives and coloring agents.

4. Standards

- 4.1. Total soluble solids (TSS) in strawberries so prepared (with dry saccharides added) should not be less than 18% or more than 35% calculated as sucrose through the use of a refractometer at 20 °C
- 4.2. Total soluble solids (TSS) in strawberries prepared by adding a sugary syrup should not be less than 15% or more than 25%.
- 4.3. Impurities and sand should not exceed 0.1% of the gross weight.
- 4.4. In case of quick freezing, no more than 10% of the fruits in each packet should be in agglomerates.
- 4.5. Total number of aerobic bacteria must not exceed 10.000 cells/gm
- 4.6. Count of colon group must not exceed 10 cell/gm
- 4.7. The product should be free from pathogenic micro-organisms
- 4.8. The product should be free from E. coli
- 4.9. The product should be free from fungal growth
- 4.10. Fungal germs and yeasts should not exceed 10 cell/gm
- 4.11. Residues of insecticides should not exceed the limits set by the FAO and the EOS (to be issued by EOS)

4.12. Radiation assay should not exceed the limits defined by the concerned authority.

4.13. Arsenic should not exceed 0.1 PPM, lead 0.2 PPM and tin 150 PPM.

5. Packing and labeling

5.1. The product must be packed in convenient, clean and outside-humidity-preventive packages of the same type and size, according to the Presidential Decree No. 798 concerning packages of foodstuffs.

5.2. Provisions of ES No. 1546 "Labels of packed foods" must be observed. The following information must be written in clear UN-erasable Arabic and may be written in any other foreign language besides Arabic:

- Name of product
- Name, address and trade-mark of the producer
- Net weight of the packet
- Compositional ingredients
- Production and expiry dates
- In case of domestic production, the phrase "Made in Egypt" must be written on the label.
- Requirements of storage, transportation and handling

5.3. When packing quick frozen strawberries, the following shall be observed:-

5.3.1 Packing should be undertaken under circumstance that preserve characteristics and quality standards.

5.3.2. Prevention of bacterial contamination from the surrounding atmosphere.

5.3.3. The package should protect the product. It should not allow loss of humidity dehydration and should be free from any pores.

5.3.4. The product must be stored at no more than (-18 °C).

Transportation and handling should maintain the same degree no re-freezing is permissible.

1. References

Codex Stan. no. 52/1981

Codex standard for quick frozen strawberries.

2. Bodies that took part in setting the standards:-

1. El-Nasr for preserved foods (Kaha)
2. Edefina for preserved foods
3. Food Industries Development Center (KAHA)
4. Faculty of Agriculture, Ain Shams University, Department of Food Industries.
5. Central Laboratories, MOH, Chemical and Microbiological Section.
6. Chemist Mahmoud Gom'ah Ahmed.

Arab Republic of Egypt

ES: 49 - 1993

USC: 664 - 34 -665.3

**EGYPTIAN STANDARD
49/1993
VEGETABLE EDIBLE OILS
PART (8)
EDIBLE COTTON-SEED OIL GRADE ONE**

**THE EGYPTIAN ORGANIZATION FOR STANDARDIZATION AND
QUALITY CONTROL**

Edible Cotton-seed oil “Grade one”

Preamble:

This ES hereby annuls and replaces ES 49 (Part - C) of 1986

1. Area

This Es covers the general and special quality attributes of edible cotton seed oil “grade one”

2. Definition

Cotton-seed oil “grade one” is the oil extracted from cotton seeds and normalized, whitened, from which odor and estereen are removed and is prepared for direct human consumption.

3. General conditions

- 3.1. Free from any other oils or fats
- 3.2. Clear and palatable has acceptable identified flavor and aroma.
- 3.3. Free from rancidity
- 3.4. Free from residues of the primary materials from which it was extracted and from materials used in its purification.
- 3.5. Positive to Halven Test.

4. Standards

- 4.1. Volatile substances should not exceed 0.2% at 105 °C
- 4.2. Relative density at 20 °C should range between 0.918 and 0.926
- 4.3. Relative coefficient/Deflection factor at 40 °C should range between 1.458 and 1.466.
- 4.4. Iodine number should range between 99 and 119
- 4.5. Saponification number should range between 189 and 198 m.gm Potassium Hydroxide / gm of oil.
- 4.6. Non-saponifiable materials should not exceed 1.5%
- 4.7. Acidity number should not exceed 0.4 mgm of Potassium Hydroxide / gm of oil (which is equivalent to 0.2% as oleic acid)
- 4.8. Peroxide number should not exceed 10 melliequivalent of active oxygen / kg of oil
- 4.9. Insoluble impurities should not exceed 0.05% by weight.
- 4.10. Saponifying contents should not exceed 0.005% by weight
- 4.11. Color index should not exceed 35 for yellow and 7 for red in a 5¼ inches cell nor 20 for yellow and 1.4 for red in a one-inch cell.

4.12. Arsenic, Lead and Copper should not exceed 0.1 m.gm/kg. Iron should not exceed 1.5 m.gm/kg.

4.13. Residues of pesticides must fall within limits define by the FAO of the United Nations and the limits to be set by EOS in this connection.

4.14. Fatty acids content, as measured by Gas Chromatography analysis should range between:

^c less than 14	Less than 0.1
^c 14	0.4 - 2
^c 16	17 - 31
^c 16:1	0.5 - 2
^c 18	1 - 4
^c 18:1	13 - 44
^c 18:2	33 - 59
^c 18:3	0.1 - 2.1
^c 20:3	Less than 0.7
^c 20:1	Less than 0.5
^c 22	Less than 0.5
^c 22:1	Less than 0.5
^c 24	Less than 0.5

4.15. Anti-Oxidative, if added, should not exceed:

4.15.1. Gallate compounds (separately or collectively) 100 mg/kg

4.15.2. Anisole Hydroxy Biotyle } 200 mg/kg Separately or combined
+ Tulwin Hydroxy Biotyle }

4.15.3 Ascorbyle Palmitates } 200 gm/kg

4.15.4 Ascorbyle estiarates } separate or combined

4.15.5 Natural or artificial Tokoferolates as per good manufacturing practices

4.15.6 Dilaurylthio dispropionates 200 mg/kg

4.16. Tertiary Butyl Hydroquinone 120 mg/kg

4.16.1 Citric acid according to state-of-the-art

4.16.2. Sodium citrates according to state-of-the-art

4.16.3. Citrates and Isoprobyle mixture } 100 mg/kg

4.16.4. Monoglyceride citrates } separate or combined

4.16.5 Phosphoric acid }

4.17. Anti-foaming agents

4.17.1. Dimethyle silicon (separate or in mixture with silicon dioxide) 10 mg/kg

4.18. Crystallization inhibitors

4.18.1 Oxy stiarin 1250 mg/kg

5. Packing and labeling

5.1. The product must be packed in convenient packs that guarantee its protection against any change in its physical or chemical characteristics and that fulfill the technical requirements in food packages as stipulated in the relating decrees.

5.2. Provisions of ES 1546 regarding “labels of foodstuffs, packed or bottled” must be observed. Each packet or label affixed to it must contain the following information in Arabic and possibly in any other language besides Arabic:-

5.2.1. Name, address and trade mark of the producer

- 5.2.2. Name and grade of the edible oil
- 5.2.3. Net weight of packet
- 5.2.4. Dates of production and expiry
- 5.2.5. Name of antioxidants and oxidatives (if any)
- 5.2.6. Made in (A.R.E) if locally-produced and country of origin if imported.
- 5.3. Packed products must be transported by a means that protects it against contamination and mechanical damage.
- 5.4. Packed products must be stored away from direct sunlight or any source of heat, humidity and harmful material

6. Inspection and testing

Inspection and testing will be conducted in accordance with ES (51) covering chemical analysis of edible oils, hydrogenated oils, or edible oil mixtures and margarins.

7. Technical Terminology

Antifoaming agents
Crystallization Inhibitors
Dilauryl thiodipropionates
Tertiary butyl hydroquinones (TBHQ)

8. References

COXDEX STAN 22 - 1981
CODEX STANDARD FOR EDIBLE OIL
CAC / VOL. X1 - ED. 1

9. Agencies that took part in this ES Amendments

- Faculty of Agriculture Cairo University
- MOH Laboratory
- Institute of Nutrition
- State's Agency of Chemistry
- Cairo Company for Oils and Soap
- The Egyptian Salt, Soda and oils company

Arab Republic of Egypt

**ES 804-1995
UDC 664.95
ICS**

EGYPTIAN STANDARDS

804 - 1995

TUNA AND BONITO

**EGYPTIAN ORGANIZATION FOR STANDARDIZATION AND QUALITY CONTROL.
CAIRO**

Preamble

These standards annul and replace ES 804/1990 regarding canned Tuna and Bonito.

1. Area covered by these ES

These standards relate to the general conditions and special specifications of various types of Tuna and Bonito and ways of their inspection and testing.

2. Definition

Canned Tuna and Bonito is a preserved Tuna or Bonito meat, packed in tin or any other convenient packages, having been prepared and packed in an edible oil, salty solution or both.

3. Fish varieties used:

Canned Tuna	Bonito
- Thunnus alalunga	- Sarda chiliensis
- Thunnus albacares	- Sarda Orientals
- Thunnus atlanticus	- Sarda Sarda
- Thunnus obesus	- Sarda Velox
- Thunnus thynnus maccoyii	- (Cybiosarda elegans)
- Thunnus thynnus Orientals	- (Gymnosarda unicolor)
- Thunnus thynnus - thynnus	- (Orcynopsis unicolor)
- Thunnus tongoll	- (Sarda austalis)
- Euthynnus affinis	
- Euthynnus alletteratus	
- Euthynnus lineatus	
- Euthynnus pelamis	
- (Syn. Katsuwonus pelamis)	
- (Allothuss fallai)	
- (Auxis rochei)	
- (Auxis thazard)	

4. General conditions

- 4.1. Canned Tuna or Bonito meat must be selected from fresh or frozen fish varieties, clean and good for human consumption.
- 4.2. It must have the characteristic color, taste and odor.
- 4.3. It must be free from meat of other fish varieties.
- 4.4. It must be free from scales, skins, bones, blood clots and meat of red muscles. It must also be regularly pressed together inside the packet.
- 4.5. The edible oil added to the product must meet the standards of edible oils.
- 4.6. The salt used must conform with the standards of the edible salt.
- 4.7. Pressure inside the can must be negative.

5. Standards:

5.1. Tuna and Bonito meat should be packed in the following grades:-

5.1.1. Fancy grade

5.1.1.1. Large chunks: solid packs resulting from cross-sectional cuts in the fish meat at not one-inch thickness. They should be aligned parallel to the tin's edges. Smaller chunks and flakes should not exceed 18% of the net weight of the can, color of the fish meat must be white (light). A can may contain 1-3 solid pieces.

5.1.2. First grade

5.1.2.1 Large chunks: (as in fancy grade) fish should be of dark color.

5.1.2.2. Medium chunks of less than 0.5-inch-thickness, not exceeding 50% of the tin's net weight. Fish meat color must be light (or white)

5.1.2.3. Flakes; cans contain more than 50% less than 0.5-inch-thick chunks of white color.

5.1.3. Second grade

5.1.3.1. Chunks or flakes (as in first grade) of dark meat.

5.1.3.2. Shredded meat, small uniform pieces of white, light or dark color, and does not form paste

5.2. pH should range between 5.9 and 6.1

5.3. Edible salt in the product should not exceed 2%

5.4. Solution formed in the product should not exceed 5% of the net weight when oil is used alone as a medium for packing.

5.5. Meat's net weight in the final product should not be less than 70% of the tin's weight stated on the label, provided that the medium of packing should be adequate enough to cover the meat.

5.6. The product must be free from pathogenic bacteria and their toxins.

5.7. The product must be free from non-aerobic bacteria (which produce Hydrogen Sulfides).

5.8. The product must be free from Clostridium Botulinum and its toxins.

5.9. Total volatile nitrogenous alkalines should not exceed 40 mg/100 gm as nitrogen in the sample. This same percentage in raw fish (as intermediate raw material) should not exceed 20 mg/100 gm in the sample.

5.10. Histamines should not exceed 10 mg/100gm of the end product.

5.11. Heavy metals must conform with ES 2360/1993 concerning maximum limits of heavy metals in foodstuffs.

5.12. Radiation should be within limits defined by the concerned authorities.

6. Packs and labels

6.1. Tuna and/or Bonito meat must be packed in tin cans coated internally with anti-rust material, or in convenient packs to maintain flavor, color and natural odor of the contents.

- 6.2. Packs must fulfill the requirements stipulated in the presidential Decree No. 798 of 1957 and ES 153 regarding tins produced for packaging foodstuffs.
- 6.3. Provisions of Ministerial Decree No. 354/1985 must be observed, with particular reference to labeling canned and frozen foods and similarly are the provisions of ES 1546 covering the information to be given Arabic in addition to the language of the country of origin in case of imported canned and/or frozen foods:-
 - 6.3.1. Name, grade, form and color of the canned meat
 - 6.3.2. Producer's name, address and trade mark.
 - 6.3.3. Net weight of the packet.
 - 6.3.4. Net weight of canned meat
 - 6.3.5. List of ingredients
 - 6.3.6. Medium of packaging.
 - 6.3.7. Operation number
 - 6.3.8. Production and Expiry dates
 - 6.3.9. "Made in Egypt" if the product is locally -produced. Otherwise, reference must be made on the label to the country of origin.

7. Testing

Testing shall follow ES 2760/1994 which indicates methods of physical and chemical testing of fish and fish-products (part II canned fish).

8. Technical Terminology

- Blood Clots
- Bonito (*Sarda Chiliensis*)
- Chunks
- Clostridium Botulinum
- Dark Meat
- Fancy grade
- First grade
- Flakes
- Light meat
- Red muscle (red meat)
- Second grade
- Shredded (grated)
- Solid pack
- White meat

9. References

1. Codex Standard No. 70 - 1981
Canned Tuna and Bonito in water or oil
Codex Alimentarius Commission

2. Egan, S Kirk Sawyer 1981

Pearson's "Chemical Analysis of Food," 8th edition, Churchill Livingstone
Edinburgh, London, Melbourne and New York.

10. Participating Agencies

- MOH Laboratories
- Department of Chemistry
- Faculty of Agriculture, Cairo University,
- National Research Center.
- GOIEC
- Chamber of Commerce, Alexandria
- EDFINA Co.
- El-Qana (Suez Canal) company for fish processing
- An Expert from EOSQC
- National Institute for Oceanology and fisheries.
- Institute of Nutrition
- Faculty of Agriculture, Zagazig University,
- Faculty of Agriculture Mansourah University,
- Food Industries' Holding Company.

APPENDIX B

Permitted Food Additives in Egypt

(From A Practical Guide to Egyptian Food Import Requirements and Procedures, Office of Agricultural Affairs, Cairo, Egypt, January 1996)

FOOD ADDITIVES

With minor exceptions noted below, no artificial color can be imported in any form.

- Azo Carmoisine
- Sunset Yellow FCF
- Titanium Dioxide
- Coccine Nouvelle
- Azo-garanine
- Tartazine
- Brilliant Black
- Fast Green FCF
- Brilliant Blue
- Erythrosine
- Indigo Carmine

The following natural color extracts have been determined fit for human consumption and may be imported. All other colors are banned from importation subject to special appeal by the importer. In most cases, the Ministry of Health has been reluctant to approve the importation and use of any food color not on the list.

- Saffron
- Annatto
- Al Kanna
- Cochincial and cochincal red
- Orseille and orseille paste
- Chlorophyll
- Indigo (natural and synthetic)
- Caramel
- Legwood and its extract
- Sumae and its extract
- Beta-apo-8-carotenal
- Beta-apo-8-carotenal acid
- Methyl and ethyl
- Canthaxanthine
- Riboflavin



**FOOD PRODUCTS
TO WHICH COLORS CAN BE ADDED**

PRODUCT	TYPE OF COLORING PERMITTED
1) DAIRY PRODUCTS	
- Yogurt	Natural
- Butter	Natural
- Cooked cheese	Natural
- Cheese whey	Natural
- Outer cover for dried or Processed cheese	As permitted <u>1/</u>
2) FROZEN PRODUCTS	
- Frozen dairy products	Natural
- Frozen non-dairy products	Natural
- Sausages	Natural
3) FISH	
- Smoked	Natural
- Caviar	As permitted <u>1/</u>

1/ See Appendix B



PRODUCT	TYPE OF COLORING PERMITTED
4) TOMATO PRODUCTS	
- Sauces	As permitted <u>1/</u>
5) DRINKS	
- Pastries	Natural
- Ready powder drinks	
- Natural	Natural
- Artificial	As permitted <u>1/</u>
- Sweetened drinks	
- Natural	Natural
- Artificial	As permitted <u>1/</u>
- Artificial syrup	As permitted <u>1/</u>
6) SOFT DRINKS	
- Cola and By-products	Natural
- Natural	Natural
- Artificial	As permitted <u>1/</u>
7) FRESH EGGS	
- Eggshell prepared for Easter	As permitted <u>1/</u>

1/ See Appendix B



PRODUCT	TYPE OF COLORING PERMITTED
8) FRUIT PRODUCTS	
- Canned fruits "Cherry only"	As permitted <u>1/</u>
- Dried fruits "Cherry only"	As permitted <u>1/</u>
9) SUGAR PRODUCTS	
- Dried sweets	As permitted <u>1/</u>
- Rock candy	As permitted <u>1/</u>
- Jelly	As permitted <u>1/</u>
10) JAMS/MARMALADE	Natural
11) FLOUR PRODUCTS & CARBOHYDRATES	
- Pastries	Natural
- Cream powder	Natural
- Pudding powder	As permitted <u>1/</u>
- Macaroni	Natural
12) APPETIZERS	
- Ginger	Caramel
- Milky sauce (mayonnaise)	Caramel
- Sauce	Natural
- Mustard	Natural
13) POPCORN AND BY-PRODUCTS	Natural

1/ See Appendix B



ALLOWABLE FOOD PRESERVATIVES

PRESERVATIVE	INT'L CODE
Sorbic acid	200
Sodium sorbate	201
Potassium sorbate	202
Calcium sorbate	203
Benzoic acid	210
Sodium benzoate	211
Potassium benzoate	212
Calcium benzoate	213
Ethyl p-hydroxy benzoate	214
Sodium ethyl p-hydroxy benzoate	215
Propyl p-hydroxy benzoate	216
Sodium propyl p-hydroxy benzoate	217
Methyl p-hydroxy benzoate	218
Sodium methyl p-hydroxy benzoate	219
Nisin	234
Natamycin (pimaricin)	235

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**FOOD PRODUCTS TO WHICH PRESERVATIVES
CAN BE ADDED**

PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mg/kg or mg/lit
Uncooked fresh cheese	Sorbic acid and salts	1000
Cooked cheese	Nisin Natamycin (pimaricin) Lysorium	12.5 1 mg/100c ² (Provided good manufacturing processes are used).
Cooked & packed cheese in the form of slices for consumption	Sorbic acid and salts	1000
Processed cheese	Nisin Sorbic acid and salts	12.5 2000
Hard, semi-hard & semi-soft cheese	Sodium or potassium nitrate	50
Cheese-like products derived from milk	Sodium or potassium nitrate	50

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PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mg/kg or mg/lit
Thermally untreated dairy products to which sugar and other substances are added	Sorbic acid and salts	300
	Benzoic acid and salts	300
Products with 60% fat content or more, except butter	Sorbic acid and salts	1000
Products with less than 60% fat content	Sorbic acid and salts	2000
Peeled potatoes	Sulphur dioxide and salts	50
Ready-made, semi or frozen potatoes	Sulphur dioxide and salts	100
Potato paste	Sulphur dioxide and salts	50
Dried potatoes	Sulphur dioxide and salts	400
Ready & frozen mushrooms	Sulphur dioxide and salts	50

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PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mg/kg or mg/lit
Dried mushrooms	Sulphur dioxide and salts	100
Dried ginger	Sulphur dioxide and salts	150
Dried tomatoes	Sulphur dioxide and salts	200
Dried onions	Sulphur dioxide and salts	300
Dried garlic	Sulphur dioxide and salts	300
Dried yellow carrots	Sulphur dioxide and salts	300
Dried coconut	Sulphur dioxide and salts	50
Dried fruits	Sorbic acid and salts	1000
Dried apricots, raisins, prunes & figs	Sulphur dioxide and salts	2000
Dried bananas	Sulphur dioxide and salts	1000
Dried apples & pears	Sulphur dioxide and salts	600
Other dried fruits & unpeeled nuts	Sulphur dioxide and salts	500



PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mg/kg or mg/lit
Olives, pickled olives, olive derivatives	Sorbic acid and salts	1000
Pickled vegetables or in salt solutions or oil, except olives	Sorbic acid and salts Benzoic acid and salts	1000 1000
Pickled fruits or vegetables in salt solutions, or in oil, except olives and yellow yellow pepper	Sulphur dioxide and salts	100
Lemon slices in bottles	Sulphur dioxide and salts	250
Canned cherries	Sulphur dioxide and salts	100
Pastry & puff fillings (basically fruits)	Sulphur dioxide and salts	100



PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mg/kg or mg/lit
Candied fruits & vegetables, e.g. marrons glaces	Sulphur dioxide and salts	100
	Sorbic acid and salts	1000
	Benzoic acid and salts	1000
Jam, jelly & marmalade (thermally untreated depending upon the packaging)	Sulphur dioxide and salts	50
	Benzoic acid and salts	250
	Sorbic acid and salts	500
Low calorie marmalade	Sorbic acid and salts +	
	Benzoic acid and salts	1000
	Benzoic acid and salts	500
Fruit sauce or core fruit and other fruit and vegetable derivatives	Sorbic acid and salts	1000
Sweets and candy (except chocolates)	Sorbic acid and salts	1000
	Benzoic acid and salts	250
Chewing gum	Sorbic acid and salts	1000
Starch (except when used for children food or complementary preparations)	Sulphur dioxide and salts	50



PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mg/kg or mg/lit
Syrup to cover candies, pastes & frozen food	Sorbic acid and salts	1000
	Sulphur dioxide and salts	40
Low calorie bread	Propionic acid salts	2000
All kinds of bakery & bakery products	Sorbic acid and salts	2000
	Propionic acid and salts	2000
Liquid eggs (yolk, albumin or both)	Sorbic acid and salts	5000
	Benzoic acid and salts	5000
Dried, frozen or concentrated eggs	Sorbic acid and salts	1000
Cooked, dried & thermally untreated meat products (e.g., pasturma & dried sausages)	Sodium or potassium nitrite	50
Cooked undried ther- mally treated meat, e.g., luncheon, or thermally, un- treated e.g., fresh sausages	Sodium or potassium nitrite	100



PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mg/kg or mgm/lit
Canned meat products	Sodium or potassium nitrite	50
Unpacked pork & products	Sodium or potassium nitrite	175
Cooked, dried or undried, thermally untreated, or treated meat products	Sodium or potassium nitrate	250
Canned meat products	Sodium or potassium nitrate	250
Jelly used as meat topping (processed, cooked, or dried)	Sorbic acid and salts Benzoic acid and salts	1000 1000
Burger meat mixed with at least 4% vegetables or cereals (uncooked or untreated thermally)	Sulphur dioxide and salts	450



PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mg/kg or mg/lit
Glucose syrup or dried syrup	Sulphur dioxide salts	20
Molasses & treacle	Sulphur dioxide and salts	70
All sugars	Sulphur dioxide and salts	15
Juices (not from sucrose)	Sulphur dioxide and salts	40
All vinegars	Sulphur dioxide and salts	70
All mustards	Sulphur dioxide salts	250
All ketchups	Sorbic acid and salts	1000
	Benzoic acid and salts	1000
Mayonnaise	Sorbic acid and salts	1000
Gelatine	Sulphur dioxide and salts	50
Complementary liquids & beverages for special nutritive uses	Sorbic acid and salts	2000
	Benzoic acid and salts	2000
	Parahydroxy benzoate and salts	2000



PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mg/kg or mg/lit
Special foods apart from baby food	Sorbic acid and salts	1500
	Benzoic acid and salts	1500
Lemon juice & lime	Sulphur dioxide and salts	350
Soft drinks & juices (non-alcoholic & low calories drinks)	Sorbic acid and salts	300
	Benzoic acid and salts	150
	Sulphur dioxide and salts	50
Artificial & natural concentrated juices & concentrated fruit juices	Benzoic acid and salts	1000
	Sorbic acid and salts	1000
	Sulphur dioxide and salts	250
Sweetened or un-sweetened juices & fruit juices ready for direct consumption	Sorbic acid and salts	300
	Benzoic acid and salts	150
	Sulphur dioxide and salts	50
Liquid tea concentrates	Sorbic acid and salts	600
	Benzoic acid and salts	600
Beer and non-alcoholic beer	Sulphur dioxide and salts	50



PRODUCT	NAME OF FOOD PRESERVATIVE	MAXIMUM ALLOWED CONCENTRATION mgm/kg or mgm/lit
Alcoholic beverages with not more than 15% alcohol concentration	Sorbic acid and salts	200
	Benzoic acid salts	200
Fruit wine, non-alcoholic wine, cider & similar non-alcoholic products	Sulphur dioxide and salts	200
	Sorbic acid and salts	200
Snacks made of potatoes, cereals or starch	Sorbic acid and salts	1000
Ready nuts or coated ones	Sorbic acid and salts	1000
Soybean paste	Sorbic acid and salts	1000
Salted fish	Sorbic acid and salts	200
Caviar	Boric acid or borax	4 gm/kg

N.B. NOTE THE GENERAL CONDITIONS ON THE NEXT PAGE.

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GENERAL CONDITIONS

- If a number of preservatives are mixed together, the total quantity of each added preservative must not exceed the maximum percentage allowed when each is used separately. For example:

Added Preservative	Maximum Limit Allowed	Amount Expected To Be Used	Percentage
Preservative No. 1	1000	500	50%
Preservative No. 2	800	200	25%
Preservative No. 3	200	not more than 50%	25%
<hr/>			
Total			100%

- For non-alcoholic juices and soft drinks, Sorbic acid and salts may be mixed with Benzoic acid and salts in the following concentration:

250 parts per million of Sorbic acid and salts

PLUS

150 parts per million of Benzoic acid and salts

- Concentrations for the following preservatives are calculated (estimated) on the basis of free acid:

Sorbic acid and salts

MINUS

Benzoic acid and salts

MINUS

Parahydroxy benzoate and salts

- Nisin may be present in certain kinds of cheeses due to fermentation.

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The concentration of Potassium and Sodium Nitrate is calculated on the basis of the estimated amount of Sodium Nitrate (NaN_{21}) remaining.

The concentration of Sodium and Potassium Nitrate is calculated on the basis of Sodium Nitrate (NaN_{31}).

Propionic acid and salts may be created naturally during the processes of fermentation in certain products.

Benzoic acid may be present in certain products as a result of fermentation.

Natamycin is for external use only and should not be present at a depth exceeding 5 cm for hard cheese, semi-hard cheese and semi-soft cheese.

The indicated concentrations for preservatives from Sulphur Dioxide and salts are estimated on the basis of Sulphur Dioxide (S_{21}).

If Sulphur Dioxide, Nisin, Propionic acid and salts, or Benzoic acid are found in any food product for which they are not allowed, or in percentages less than indicated below, the negligible concentration is not considered to exist:

SUBSTANCE	NEGLECTIBLE CONCENTRATION
Sulphur dioxide	10 parts per million
Nisin	1 part per million
Propionic acid and its salts	20 parts per million
Benzoic acid	10 parts per million

FOOD PRODUCTS TO WHICH NO PRESERVATIVES CAN BE ADDED

- Honey
- Animal or vegetable fats or oils (except virgin oils and olive oils)
- Butter
- Pasteurized and sterilized (including UHT sterilization) milk and cream (including skimmed, plain, and semi-skimmed)
- Unflavored fermented milk products
- Natural mineral water, spring water and table water
- Coffee (excluding flavored instant coffee) and coffee extract
- Tea leaves (unflavored)
- Dry pasta
- Foods for infants and young children
- Cocoa and chocolate products
- Frozen and deep frozen fresh fruits and vegetables
- Fruit cocktail

- Unprocessed fish, crustaceans and molluscs, including frozen and deep frozen products
- Quick cook rice
- Refined olive oil including olive pomace oil
- Fresh minced meat (frozen or not frozen)
- Fresh pasta
- Partially dehydrated and dehydrated milk
- Canned and bottled fruit and vegetables (excepted those indicated in Appendix E)

APPENDIX C

*Egyptian Maximum Pesticide Residue Limits
(MRL's) for Agricultural Commodities*

*(From A Practical Guide to Egyptian Food Import
Requirements and Procedures, Office of Agricultural
Affairs, Cairo, Egypt, January 1996)*



**INSECTICIDES AND FUNGICIDES KNOWN TO BE REGISTERED
AND AVAILABLE FOR USE IN EGYPT (1994)**

INSECTICIDE/ FUNGICIDE (Common Name)	Registered for use	Recommended for use	Known to be avail- able for use +	EOS * Standard
Acephate		Yes		Yes
Aldicarb		Yes	Yes	
Alpha-cypermethrin	Yes			
Anilazine		Yes		
Azinphos-methyl			Yes	
Benalaxyl	Yes	Yes	Yes	
Bendiocarb		Yes	Yes	
Benomyl	Yes	Yes	Yes	
Bitertanol	Yes	Yes	Yes	
Bromopropylate		Yes		Yes
Bupimirate	Yes		Yes	
Captan	Yes	Yes		Yes
Cabaryl	Yes	Yes	Yes	Yes
Carbendazim	Yes	Yes	Yes	

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INSECTICIDE/ FUNGICIDE (Common Name)	Registered for use	Recommended for use	Known to be avail- able for use+	EOS * Standard
Carbofuran	Yes	Yes	Yes	Yes
Carbosulfan	Yes	Yes	Yes	
Carboxin	Yes	Yes	Yes	
Chlorpyrifos-methyl	Yes	Yes	Yes	Yes
Copper Compounds	Yes	Yes	Yes	
Cyanophos	Yes			
Cyfluthrin	Yes			
Cyhalothrin	Yes			
Cymoxanil		Yes	Yes	
Cypermethrin	Yes		Yes	
Cyproconazole		Yes		
Deltamethrin	Yes			
Diazinon	Yes	Yes	Yes	Yes
Dichlofluanid	Yes	Yes	Yes	Yes
Dichlorvos		Yes		Yes
Dicofol	Yes	Yes	Yes	Yes
Dimethoate	Yes		Yes	Yes
Diniconazole	Yes	Yes	Yes	



INSECTICIDE/ FUNGICIDE (Common Name)	Registered for use	Recommended for use	Known to be avail- able for use+	EOS * Standard
Dinocap	Yes	Yes	Yes	
Diphenyl		Yes	Yes	Yes
Dithiocarbamates	Yes	Yes	Yes	Yes
Edifenphos	Yes			Yes
Esfenvalerate	Yes			Yes
Edifenphos	Yes			Yes
Esfenvalerate	Yes			
Ethirimol	Yes			
Ethoprophos		Yes		
Fenamiphos		Yes		Yes
Fenarimol	Yes	Yes	Yes	
Fenitrothion	Yes	Yes	Yes	Yes
Fenopropathrin	Yes		Yes	
Fenthion	Yes	Yes	Yes	Yes
Fenvalerate	Yes		Yes	
Flusilazole	Yes	Yes		
Formetanate	Yes			
Formothion	Yes	Yes	Yes	Yes
Fosetyl		Yes	Yes	



INSECTICIDE/ FUNGICIDE (Common Name)	Registered for use	Recommended for use	Known to be avail- able for use+	EOS * Standard
Furanthiocarb	Yes			
Hexaconazole	Yes	Yes		
Imazilil		Yes		
Iprodione	Yes	Yes	Yes	
Malathion	Yes	Yes	Yes	Yes
Metalaxyl	Yes	Yes	Yes	
Methamidophos	Yes		Yes	Yes
Methfuroxam		Yes		
Methomyl	Yes	Yes	Yes	
Monocrotophos	Yes		Yes	Yes
Myclobutanil	Yes	Yes		
Nuarimol		Yes		
Omethoate	Yes			Yes
Orthophenylphenol		Yes	Yes	Yes
Oxadixyl		Yes	Yes	
Oxamyl		Yes		
Oxycarboxin	Yes	Yes	Yes	
Penconazole		Yes		
Pencycuron	Yes			



INSECTICIDE/ FUNGICIDE (Common Name)	Registered for use	Recommended for use	Known to be avail- able for use+	EOS * Standard
Pendimethalin		Yes		
Permethrin	Yes			
Petroleum Oil	Yes	Yes	Yes	
Phenthoate	Yes	Yes	Yes	
Phosalone	Yes	Yes	Yes	Yes
Phoxim	Yes	Yes		
Piperonyl butoxide		Yes		
Pirimicarb	Yes	Yes	Yes	Yes
Pirimiphos-methyl	Yes	Yes	Yes	Yes
Procymidone	Yes	Yes		
Profenofos	Yes		Yes	
Propamocarb		Yes	Yes	
Propargite	Yes	Yes	Yes	
Propiconazole	Yes		Yes	
Propineb	Yes	Yes	Yes	
Prothiocarb	Yes			
Prothiofos	Yes	Yes	Yes	
Pyrazophos		Yes		
Pyrethrins		Yes		Yes

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INSECTICIDE/ FUNGICIDE (Common Name)	Registered for use	Recommended for use	Know to be avail- able for use+	EOS * Standard
Pyrifenox			Yes	
Sulphur	Yes	Yes	Yes	
Tebuconazole		Yes		
Tetrachlorvinphos		Yes	Yes	
Tetradifon		Yes	Yes	
Thiabendazole		Yes	Yes	Yes
Thiobencarb		Yes		
Thiodicarb	Yes			
Thiophanate-methyl	Yes	Yes	Yes	Yes
Tolcofos-methyl	Yes		Yes	
Tralomethrin	Yes			
Triadimefon	Yes	Yes	Yes	
Triadimenol	Yes	Yes		
Triazophos	Yes	Yes	Yes	
Trichlorfon	Yes	Yes	Yes	Yes
Tricyclazole		Yes		



INSECTICIDE/ FUNGICIDE (Common Name)	Registered for use	Recommended for use	Known to be avail- able for use+	EOS * Standard
Tridemorph		Yes		
Triforine		Yes	Yes	
Vinclozolin	Yes	Yes	Yes	

Total: 107

72

78

63

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+ Information limited to Beni Suef and Ismailia Governorates

*** EOS = Egyptian Organization of Standards**



EGYPTIAN ORGANIZATION STANDARDS (EOS)

MAXIMUM RESIDUE LIMITS (MRL) IN FOOD COMMODITIES

	EOS REF.
INSECTICIDES	
Acephate	2685-1994
Aldrin	2079-1992
Bromophos	2074-1992
Bromophos-ethyl	2075-1002
Bromopropylate	2707-1994
Carbaryl	2078-1992
Carbofuran	2686-1994
Cartap	2687-1994
Chlordane	2019-1991
Chlorfenvinphos	2014-1991
Chlorobenzilate	2696-1994
Chlorpyrifos	1991-1960
Chlorpyrifos-methyl	2684-1994
Cruformate	1991-1958
DDT	2081-1992
Diazinon	1991-1968
Dichlorvos	1991-1967
Dicofol	2697-1994
Dimethoate	1991-1965
Dioxathion	1991-1953
Disulfoton	2708-1994
Edifenphos	2688-1994
Endosulfan	2016-1991
Endrin	1991-1954

**EOS REF.**

Ethiofencarb	2694-1994
Ethion	2017-1991
Fenamiphos	2717-1994
Fenbutatin oxide	2695-1994
Fenchlorfos	2080-1992
Fenitrothion	1991-1964
Fensulfothion	1991-1956
Fenthion	1991-1961
Formothion	1991-1970
Heptachlor	2698-1994
Lindane	1991-1966
Malathion	2222-1992
Methamidophos	2689-1994
Methidathion	2223-1992
Mevinphos	2699-1994
Monocrotophos	2224-1992
Omethoate	2225-1992
Parathion	2700-1994
Parathion-methyl	2701-1994
Phosalone	2228-1992
Phosmet	2692-1994
Phosphamidon	2229-1992
Piperonyl butoxide	2230-1992
Pirimicarb	2691-1994
Pirimiphos-methyl	2718-1994
Propoxur	2709-1994
Pyrethrins	2231-1992



	EOS REF.
	2710-1994
	2705-1994
	2712-1994
FUNGICIDES	
Captan	2021-1991
Chlorothalonil	2714-1994
Cyhexatin	2706-1994
Dichlofluanid	2737-1994
Dicloran	2715-1994
Diphenyl	1991-1962
Diphenylamine	1991-1963
Dithiocarbamates	2693-1994
Dodine	2716-1994
Fentin	1991-1957
Folpet	1991-1969
Orthophenylphenol	2226-1992
Quintozene	2702-1994
Thiabendazole	2704-1994
Thiophanate-methyl	2711-1994
HERBICIDES	
Chinomethionate	2713-1994
Chlormequat	2015-1991
2, 4-D	1991-1959
Diquat	1991-1952
Paraquat	2227-1992
FUMIGANTS	
Hydrogen cyanide	2077-1992
Hydrogen phosphide	2076-1992
(Inorganic bromide	2703-1994



		EOS REF.
PLANT GROWTH REGULATOR	Maleic hydrazide	2690-1994
MISC.PESTICIDES STANDARDS	Definitions/terms	2013-1991
	Limits for medicinal and aromatic plants	2020-1991
OTHER CHEMICAL CONTAMINANTS	Heavy metals	2360-1993
	PCBs	2359-1993
	Mycotoxins	1875-1990
	Toxic amines	1796-1990



**METHODS OF ANALYSIS FOR PESTICIDE RESIDUES
AND OTHER CHEMICAL CONTAMINANTS**

		EOS REF.
PESTICIDES	Methods for testing for pesticides: A	1466-1979
OTHER CONTAMINANTS IN FOOD	PCBs	2359-1993
METALS IN FOODS	Antimony	1447-1979
	Copper	1979-1448
	Lead	1865-1990
	Mercury	1806-1990
	Tin	1979-1448
METALS IN BOTTLED DRINKING WATER	Aluminium	1851-1990
	Barium	1845-1990
	Cadmium	1876-1990
	Chromium	1848-1990
	Copper	1849-1990
	Lead	1862-1990
	Manganese	1843-1990
	Silver	1850-1990
	Zinc	1844-1990

APPENDIX D

Shelf Life Information for Egyptian Food Products

*(From A Practical Guide to Egyptian Food Import
Requirements and Procedures, Office of Agricultural
Affairs, Cairo, Egypt, January 1996)*



SHELF-LIFE FOR FOOD PRODUCTS

1. VALIDITY PERIOD FOR FISH AND FISH PRODUCTS

Frozen fish kept at a temperature of -18 degrees Centigrade or less.

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Cold-Smoked Fish	288/91	5 months	Suitable for product
Hot-Smoked Fish	288/91	3.5 months	Suitable for product
Semi-Hot-Smoked Fish	288/91	3.5 months	Suitable for product
Frozen Fish	889/92	6 months	Polyethylene bag
Shrimps and Shellfish	516/93	8 months	Plastic/cardboard

Refrigerated fish kept at temperatures ranging from 0 to 4 degrees Centigrade.

Cold-Smoked Fish	288/91	2 months	Suitable for product
Hot-Smoked Fish	288/91	15 days	Air-tight
		7 days	Suitable for product
Smoked Fish	288/91	15 days	Air-tight
Semi-Hot		7 days	Suitable for product
Salted Fish	1725/89	12 months	Suitable for product.

Fish kept at suitable temperatures in well-ventilated stores.

Sardines	287/90	36 months	Sterilized metal
Tuna Fish	804/90	36 months	Sterilized metal

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PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Fish kept at suitable temperatures in well-ventilated stores.			
Anchovy in Oil	808/88	18 months	Tight metal
		18 months	Tight glass
		12 months	Untight metal
Anchovy Paste in Tubes		12 months	Tubes
Mackerel Fish	1521/82	36 months	Sterilized metal
Salmon Fish	1472/80	36 months	Sterilized metal
Salted Fish	1725/89	6 months	Suitable for product



2. VALIDITY PERIOD FOR MILK AND DAIRY PRODUCTS

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Milk products kept at suitable temperatures.			
Sterilized Milk	1623/90	12 months	Tin container
		6 months	Other container
Steamed or Fumigated Milk	1830/90	12 months	Tin can
		6 months	Other container
Powder Skimmed Anti-humidity and Milk	1648/88	24 months	air-tight container
Powder Milk Full-Cream or Partly Skimmed	1648/88	24 months	Metal
Local Condensed Milk	1830/90	12 months	Metal
		6 months	Other container
Grafted Milk Sterilized	1641/91	12 months	Metal
		6 months	Other container
Sterilized Cream	154/92	12 months	Metal
		6 months	Other container

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PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Milk products kept at suitable temperatures.			
Processed Cheese, Processed Cheese Paste	999/88	12 months	Air-tight metal
Cooking Butter - Buffalo Ghee	154/92	24 months	Air-tight metal
- Cow Ghee		12 months	Other container
Full Cream Cooked Cheese	1008/70	12 months 6 months	Metal Suitable for product
Feta Cheese	1008/80	12 months 6 months	Metal Suitable for product

Refrigerated and cooled milk products kept at temperatures ranging from 0 to 5 degrees Centigrade.

Pasteurized Milk	1616/90	5 days	Suitable for product
Grafted Yogurt	1650/91	15 days	Welded container
Milch	582/79	15 days	Suitable for product



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Processed Cheese and Processed Cheese Spread	999/88	6 months	Suitable for product
Solid Cheese	1007/89	18 months	Suitable for product
Butter			
- Natural Cow Butter	154/92	2 months	Suitable for product
- Buffalo Butter		2 months	Suitable for product
Feta Cheese (Cream or Soft Cheese)	1008/70	12 months	Suitable for product
Plain Yogurt (Curdled Milk)	1000/90	7 days 15 days	Welded container
Semi-Solid Cheese	1183/73	9 months	Suitable for product
Soft or Cream Fresh Cheese	1008/70	1 month	Suitable for product
Refrigerated Soft or Cream Cheese	1008/70	6 months	Suitable for product



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
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Frozen milk products to be kept at a temperature of -15 degrees Centigrade or less.

Ice Cream	1185/93	12 months	Suitable for product
Butter	154/92	18 months	Suitable for product
- Natural Cow Butter		18 months	Suitable for product -



3. VALIDITY PERIODS FOR VEGETABLE OILS, FATS AND OTHER OIL PRODUCTS

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Sesame Oil	49/92	12 to 24 months	Suitable for product provided it is packed in an inert gas atmosphere
Olive Oil	49/93	12 to 24 months	Suitable for product provided it is packed in an inert gas atmosphere
Maize Seed Capsule Oil	49/93	12 to 24 months	Suitable for product provided it is packed in an inert gas atmosphere
Linen Seed Oil	49/92	6 months	Suitable for product
Groundnut Oil	49/93	12 to 24 months	Suitable for product provided it is packed in an inert gas
Soybean Oil	49/93	12 to 24 months	Suitable for product provided it is packed in an inert gas



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Sunflower Oil	49/93	12 to 24 months	Suitable for product provided it is packed in an inert gas
Cottonseed Oil Grade No. 1	49/93	12 to 24 months	Suitable for product provided it is packed in an inert gas
Grade No. 2	1672/88	12 to 24 months	Suitable for product provided it is packed in an inert gas
Palm Tree Oil	1520/93	24 months	Suitable for product
Palm Tree Stone Oil	1632/92	24 months	Suitable for product
Palm Tree Oline	1706/89	12 to 24 months	Suitable for product provided it is packed in an inert gas
Palm Tree Nutritive	2249/92	12 months	Suitable for product
Table Oil for Frying and Roasting Purposes	2142/92	12 to 24 months	Suitable for product provided it is packed in an inert gas



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Salad Oil		12 to 24 months	Suitable for product provided it is packed in an inert gas
Grade Seed Oil	2098/92	12 to 24 months	Suitable for product provided it is packed in an inert gas
Safflower Seed	2099/92	12 to 24 months	Suitable for product provided it is packed in an inert gas
Mustard Oil	2100/92	12 to 24 months	Suitable for product provided it is packed in an inert gas
Papaya Oil	2101/92	12 to 24 months	Suitable for product provided it is packed in an inert gas
Summer Rape or Colza Oil of Low Content of Aeric Acid	1685/92	12 to 24 months	Suitable for product provided it is packed in an inert gas
Coconut Oil	1615/92	12 to 24 months	Suitable for product provided it is packed in an inert gas



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Synthetic Veg. Cooking Butter	50/82	12 to 24 months	Cardboard boxes lined with polyethelene
		36 months	Air-tight container provided it is packed in an inert gas
Hydrogenate Veg. Oil	50/82	3 months	Cardboard boxes lined with polyethelene.
		12 months	Suitable for product
Table Margarine	50/83	3 months	Suitable for product
Pies and Sweets Margarine		3 months	Suitable for product
Nutritional Animal Fat	1471/80	12 months	Suitable for product



4. VALIDITY PERIODS FOR GRAINS, CEREALS, AND SIMILAR PRODUCTS AND TEA AND COFFEE

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Corn	1601	2 years	
Grain silos		2 years	Suitable bags
Flour (all kinds)			
- Flour in Sundry Extractions	1251	9 months	Suitable for product
- Flour Mixed with Bakery Powder	942		
- Corn Flour Used in Biscuits and Sweets	2378		
White Flour			
Semolina	1649	9 months	Suitable for product
Sweet Paste	1668	9 months	Suitable for product
Biscuits			
- Plain Biscuits	416	1 year	Suitable for product
- Covered and Stuffed Biscuits	416	9 months	Suitable for product



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Macaroni			
- Made of Semolina	286	2 years	Suitable for product
- Made of 1st Class Flour		18 months	Suitable for product
Popcorn Maize Products	1525	3 months	Suitable for product
Corn Flakes	---	1 year	Suitable for product
Starch	357	2 years	Bags, plastic packing, or paper packs
White Dregs of Sesame Oil	941	1 year	Air-tight container
Sesame Oil Dregs	384	1 year	Any suitable container
Sweets	992	6 months	not packed in zinc
Halawa Tehiniya		1332	Not indicated
Packed Bread in all Forms and Kinds:	1419		Plastic
- with additives		7 days	
- without additives		3 days	
Crispies		2 months	Plastic
Tea	559	3 year	Suitable for product
Green Coffee	517	2 years	Suitable for product



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Roasted Coffee Ground	1474	2 years	Suitable for product Air-tight container
Quick Melting		2 years	Non-leaking air-tight container
Groundnut	2245		
- Unpeeled Fruits		1 year	Ventilated container
- Chick Peas and other than Chick Peas, Peeled and Unpeeled		3 months	Suitable for product
Grains and Cereals of all kinds:			
- Whole		1 year	Suitable for product
- Crushed (peeled)		2 years	Suitable for product
Bleached Rice	2244		
		1 year from hulling date	Bags/sacks
		1 year from packing date	Plastic



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Canned Grains & Cereals			
- Ready made Lentils	413	2 years	Metal container to suit the nature of the packed material
- Kidney Beans	415		
- Canned, Cooked Dehydrated Green Peas	719		
- Canned Chicken Peas	806		
- Canned Macaronis with Meat	1446		
Cakes		3 months 2 years	Air-tight container Metal
Couscous	2140	2 years	Suitable for product



5. VALIDITY PERIODS FOR SUGAR, SUGAR-SUBSTITUTES, SWEETS, COCOA AND SIMILAR PRODUCTS

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Cocoa Powder	465H/1/93	24 months	Metal or glass container, aluminum foil, provided it is packed in an inert gas during validity period
		12 months	Other packing such as paper or plastic wrapping in case of products not in inert gas
Dehydrated Sweets all kinds	464/92	12 months	Suitable for product
Raw Sugar	2363/93	18 months	Suitable for product
Imported Lactose Sugar	1904/90	24 months	Suitable for product
Sweets Sugar Powder	1903/90	12 months	Suitable for product
Dehydrous Dextrose	2102/92	12 months	Suitable for product
Dextrose Mono-Crystallization Water	2013/92	12 months	Suitable for product

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PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Sweets Glucose	2104/92	9 months	Suitable for product
Molasses	989/70	18 months	Suitable for product
Bee Honey	355/90	24 months	Suitable for product
Molasses Honey	356/90	9 months 18 months	Suitable container Product to be in air-tight, thermo-treated packs
Glucose Honey	359/90	9 months	Suitable for product
Cocoa Butter Substitutes	1499/81	24 months	Suitable for product
Fructose Syrup 42% - 55%	1587/86	9 months	Suitable for product
Sugar	358/90	36 months	Suitable for product
Other Chocolate	465/90	12 months	Suitable for product



6. VALIDITY PERIODS FOR VEGETABLES, FRUITS AND SIMILAR PRODUCTS

Quickly frozen products kept at a temperatures of -18 degrees Centigrade or less.

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Frozen Artichokes	1746/8	18 months	Suitable for product-
Frozen Grape Leaves	1766/89	18 months	Suitable for product
Sundry and Mixed Frozen Veg.	1776/89	18 months	Suitable for product
Frozen Green Beans	1743/89	18 months	Suitable for product
Frozen Green Jew's Mallow	1681/88	18 months	Suitable for product
Frozen Green Pigeon Peas	1748/89	18 months	Suitable for product
Frozen Green Spinach	1749/89	18 months	Suitable for product
Frozen Okra	1702/89	18 months	Suitable the product



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Frozen Semi-Fried Potatoes	2365/93	18 months	Suitable for product
Frozen Baked Beans Paste	2473/93	18 months	Suitable for product
Frozen Green Peppers	2475/93	18 months	Suitable for product
Frozen Yellow Carrots	2472/93	18 months	Suitable for product
Frozen Strawberry	2368/93	18 months	Suitable for product
Mango Juice	685/70	18 months	Suitable for product
Orange Juice	686/76	18 months	Suitable for product
Guava Juice	687/78	18 months	Suitable for product
Apricot Juice	1012/77	18 months	Suitable for product
Grapefruit Juice	1029/76	18 months	Suitable for product
Mandarin Juice	1550/84	18 months	Suitable for product
Grape Juice	1558/85	18 months	Suitable for product



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Strawberry Juice	1579/85	18 months	Suitable for product
Pineapple Juice	1580/85	18 months	Suitable for product
Lemon Juice	2220/92	18 months	Suitable for product
Apple Juice Concentrated	1581/85	18 months	Suitable for product
Orange Juice Concentrated	686/76	18 months	Suitable for product
Fried Potatoes Slices (chipsy)	1629/87	6 months	Suitable for product



7. VALIDITY PERIODS FOR VEGETABLES, FRUITS AND SIMILAR PRODUCTS

Products kept at a temperature of 30 degrees Centigrade or less in well ventilated stores.

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Canned Vegetables			
Canned Bean	335/76	24 months	Suitable for product
Canned Grape Leaves	805/92	24 months	Suitable for product
Sundry Vegetables	807/88	24 months	Suitable for product
Canned Fresh Green Peas	360/76 P.1	24 months	Suitable for product
Canned Fresh Okra	360/76 P.2	24 months	Suitable for product
Canned Fresh Artichokes	360/76 P.3	24 months	Suitable for product
Canned Fresh Green Beans	360/76 P.4	24 months	Suitable for product
Canned Fresh Green Spinach	360/76 P.5	24 months	Suitable for product

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PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Canned Potatoes	1610/86	24 months	Suitable for product
Canned Fruits			
Canned Dates	545/74	24 months	
Canned Pear and Apples	544/64	24 months	
Canned Mango	1242/74	24 months	Tin varnished with antacid varnish
Canned Peach	1243/74	24 months	
Canned Mandarin	2370/93	24 months	
Canned Grapefruit	2338/92	24 months	
Canned Strawberry	2369/93	24 months	
Canned Dates	545/74	12 months	Unvarnished white tin with the inside layer not less than 11.2 gm/m ²
Canned Pear and Apples	544/64	12 months	
Canned Mango	1242/74	12 months	
Canned Peach	1243/74	12 months	
Canned Mandarin	2370/93	12 months	
Canned Grapefruit	2338/92	12 months	
Canned Strawberry	2368/93	12 months	
Canned Fruit Juice			
Mango Juice	685/70	24 months	
Guava Juice	686/76	24 months	
Peach Juice	1558/85	24 months	Tin varnished with antacid varnish
Grape Juice	1578/85	24 months	
Strawberry Juice	1579/85	24 months	
Pineapple Juice	1580/85	24 months	
Apple Juice	1581/85	24 months	



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING	
Mango Juice	685/70	12 months	White tin not varnished with inside tin layer not less than 11.2 gm/m ²	
Guava Juice	686/76	12 months		
Peach Juice	1558/85	12 months		
Grape Juice	1578/85	12 months		
Strawberry Juice	1579/85	12 months		
Pineapple Juice	1580/85	12 months		
Apple Juice	1581/85	12 months		
Apricot Juice	1012/77	18 months		Suitable for product
Orange Juice	686/76	18 months		Suitable for product
Grapefruit Juice	1029/76	18 months		Suitable for product
Mandarin Juice	1550/84	18 months	Suitable for product	
Lemon Juice	2220/92	18 months	Suitable for product	
Dried Fruit Figs, Raisins, Dried Plums or Prunes, Apricots, etc.	129/86	12 months	Paper or plastic	
Bottled Fruit Juices	As above nos.	12 months	Glass, aluminum	
Pickles	452/90	18 months 12 months 6 months 24 months	Thermo-treated bottles Plastic aluminum foil Varnished metal box Antacid varnish	



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Tomato Products	132/86	18 months	Metallic package varnished with antacid varnish
Jam/Marmalade Jelly/Jam	129/86	24 months 18 months	Suitable for product in bottles for product to be opened within one week from the packing date
Frozen Fruit Core		18 months	Suitable for product
Canned Fruit Core and Canned Concentrated Fruit Juices used as raw materials for manufacture of fruit juices		24 months	Metal or plastic



8. VALIDITY PERIODS FOR ANIMAL FODDER

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Grains and Cereals included in the manufacture of Fodder			
Oats Grains	3 P. 2/1990	12 months	Bulk in silos, jute bags, or braided propylene bags
Rye Grains	3 P. 3/1990		
Maize Grains	3 P. 4/1990		
Barley Grains	3 P. 5/1990		
Sorghum Grains	3 P. 6/1990		
Cattle Cakes	3/1978	3 months	Jute bags
Bran	3/1978	3 months	Jute bags or sound and faultless propylene bags devoid of holes and tightly closed
Dung (Bird Droppings) and rejects	3/1978	3 months	Sound jute bags
Powders for Animal Proteins and Protein Concentrates	3/1978	12 months	Darkened paper bags isolated by a plastic layer
Fodders Additives	3/1978	12 months	Plastic bags or other suitable packaging



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Hays, Straw, and Peels	3/1978	12 months	In bulk, compressed bales or in sound jute bags
Manufactured Fodders or Urea Fodders	3/1978	6 months	Jute bags or propylene braided bags



9. VALIDITY PERIODS FOR SPECIALITY FOODSTUFFS

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Baby Milk	2072/91	18 months	Tight packaging duly sterilized or packed at time of discharge
Non-Milk Foods for Babies		12 months	Fortified glass, duly filtered and air tight
Fruit Juices for Children	2109/92	12 months	Sterilized air tight glass package
Food for Nursing Babies (in powder or Granules made of Grains, Cereals, Veg. or Fruits)	2072/91	24 months	For products in inert gas, air-tight metal packs at time of discharge
		12 months	Inert gas, cardboard packs lined with aluminum foil
Food for Children made basically of grains	1805/93	24 months	Inert gas, air-tight metal packs at time of discharge
		12 months	Inert gas, cardboard packs lined with aluminum foil



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Food for Children containing vegetables	1159/92	24 months	Inert gas, air-tight metal packs, milk duly packed at time of discharge
		12 months	Inert gas, cardboard packs lined with aluminum foil



10. VALIDITY PERIOD FOR MEATS AND MEAT PRODUCTS

Frozen meat kept at a temperature of -18 degrees Centigrade or less.

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Frozen Hamburger (beef)	1688	3 months From date of production	Suitable for product
Minced Meat Mixed with Soybean Protein	2097	3 months From date of production	Humidity-proof container or pack
Pure Minced Meat	1694	3 months From date of Production	Humidity-proof container or other suitable pack
Frozen Liver	1473	7 months From production to freezing	Polyethylene bags, cardboard anti-humidity pack
Frozen Kidneys, Hearts, Spleens, Tongues, Pancreas and Heart	2062	4 months for kidneys, hearts spleens, and tongues 2 months for brains and pancreas	Suitable for product



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Frozen Meat	1522	9 months for cow, camel, and buffalo meat 6 months for sheep, goat meat, prescott and flank steak	Air-tight, polyethylene bags. Treated cardboard humidity-proof container

Processed and manufactured meat requiring set preservation temperatures.

Jerked Beef (basturma)	1042	2 months	Layered packing material
Canned Sausages	1971	24 months	Tin packing
Frozen Sausages	1972	3 months	Suitable for product
Canned Corned Meat	1563	24 months	Tin can
Dehydrated Eggs	1523	6 months	Anti-humidity bags or tin packaging
Luncheon Meat	1114	4 months 24 months	Vaccum packed Can



PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Processed Luncheon			Polyethylene bags or humidity proof cellulose bags. For semi-dried products, pro-humidity cellulose or fibre bag
Canned Luncheon			Tin can
Barnyard Fowls & Frozen Rabbits	1090	9 months	Polyethylene bag, air-Tight kept in a strong, clean and anti-humidity cardboard boxes
Meatballs	1973	3 months	Humidity-proof suitable packaging



11. VALIDITY PERIOD FOR BEVERAGES

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Non-Alcoholic Soft Drinks	336 T	1 year	Glass bottles for beverages exceeding 250 ml
Non-Alcoholic Malted Soft Drinks	1765	1 year 1 year	Throw-away glass bottles
Fruit-Tasting Malted Soft Drink	1797	9 months 18 months	Plastic container Metal container
Sweetened Non-fizzy Drinks	1602	1 year 9 months 1 year 1 year 2 years	Bottles Plastic Cardboard Aluminum foil Metal container
Synthetic Drinks	374	3 years 2 years	Bottles Plastic
Natural Drinks	129	2 years 18 months	Bottles Plastic
Alcoholic Drinks	189	18 months	Bottles or metal container



12. VALIDITY PERIOD FOR WATER

PRODUCT	SPECIFICATION NUMBER	VALIDITY PERIOD	REQUIRED PACKAGING
Purified Natural Packed Drinking Water	1589/86	12 months	Plastic bottles, plastic or glass pack
Ready-to-drink and Packed Natural Mineral Water	1588/86	12 months	Plastic bottles, plastic or glass pack

APPENDIX E

*Products (and Inspection Fees) Controlled by the
General Organization for Export and Import Control
(GOEIC)*

-Customs-

Commodity	Inspection Fee
Edible vegetables plants, roots: Dry Pulses and other vegetables A. For retail selling B. For non-retail selling	½ piaster/Kg per shipment 1 piaster/Kg per shipment ½ piaster/Kg per shipment with a maximum of 100,000 L.E per shipment.
Edible fruits & shell plants A. For retail selling B. For non-retail selling	1 piaster/Kg per shipment ½ piaster/Kg per shipment
Coffee, Tea, and Spices A. For retail selling B. For non-retail selling	1 piaster/Kg per shipment ½ piaster/Kg per shipment with a maximum of 100,000 L.E/ Shipment
Grain (except seeds) A. Wheat B. Other grains	1 piaster per 2 ton of each shipment with a maximum of 100,000 L.E per shipment
Grain Flour	1 L.E per ton of each shipment, maximum 10,000 L.E/shipment
Starch and Seed	1 L.E/ton/shipment
Grain and Oil plants	1 L.E/ton with maximum 10,000 L.E per shipment.
Lupine ((Termin)) the Arabic spelling Watermelon seeds	½ piaster/Kg per shipment
Fats and Grease Margarine and Glycerin A. For retail selling B. For non-retail selling	½ piaster/Kg per shipment 2 L.E/ton/shipment maximum 10,000 L.E/shipment.
Plant oil and synthetic butter A. For retail selling B. For non-retail selling	½ piaster/Kg/shipment 1 L.E/ton/shipment maximum 10,000 L.E/shipment.
Industrial Animal & vegetable oil A. For retail selling B. For non-retail selling	½ piaster/Kg /shipment 1 L.E/ton/shipment maximum 10,000 L.E/shipment.
Processed Meat, Fish & other invertebrates.	1 piaster/Kg/shipment
Sugar beet & Sugar cane, & other liquid and non-liquid sugar.	½ piaster/Kg/shipment maximum 10,000 L.E/shipment
Sugar confectioneries exclusive of cocoa	1 piaster/Kg/shipment
Cocoa and its products A. For retail selling B. For non-retail selling	1 piaster/Kg/shipment ½ piaster/Kg/shipment

Commodity	Inspection Fee
Tabuoca prepared from starch	1 L.E/Kg/shipment
Processed food of grain, flour and starch origin and biscuit except children food	
Edible processed vegetables and fruits except those of children and babies	
A. For retail selling	1 piaster/Kg/shipment
B. For non-retail selling	½ piaster/Kg/shipment
Soft drink liquor and Alcohols	
A. For retail selling	1 piaster/Kg/shipment
B. For non-retail selling	½ piaster/Kg/shipment
Animal parts not for human consumption	
A. For retail selling	1 piaster/Kg/shipment
B. For non-retail selling	½ piaster/Kg/shipment
Tobacco and its products	
A. For retail selling	1 piaster/Kg/shipment
B. For non-retail selling	½ piaster/Kg/shipment maximum 10,000 L.E/shipment
Marble, Granite etc.	
A. Raw	½ piaster/Kg/shipment
B. Processed	1 piaster/Kg/shipment
Cement	1 L.E/ton/shipment maximum 10,000 L.E/shipment
Sodium Hydroxide	3 L.E/ton/shipment
Sodium Bicarbonate	3 L.E/ton/shipment
Gasoline	3 L.E/ton/shipment
Varnish and Wax	3 L.E/ton/shipment
Ink	3 L.E/ton/shipment
Perfumes, cosmetics, etc.	
A. For retail selling	1 piaster/Kg/shipment
B. For non-retail selling	½ piaster/Kg/shipment
Soap	3 L.E/ton/shipment
Detergents	5 L.E/ton/shipment
A. For retail selling	3 L.E/ton/shipment
B. For non-retail selling	maximum 10,000 L.E/shipment
Light Candle	3 L.E/ton/shipment
Jelly	3 L.E/ton/shipment
Glue	3 L.E/ton/shipment
Matches	1 piaster/Kg/shipment
Polyvinyl Chloride	3 L.E/ton/shipment
Phenol powder	3 L.E/ton/shipment
Wall and floor coverage	
Formica	1 piaster/Kg/shipment
Cool-man, Insulating containers	5 piaster for each container

<i>Commodity</i>	<i>Inspection Fee</i>
Pumps, home and kitchen and sanitary tools etc.	½ piaster/Kg/shipment
Tires for cars and Motorcycles	1 piaster/Kg/shipment maximum 25 piaster/shipment
Tanned leather	1 piaster/Kg/shipment maximum 3 L.E/ton/shipment
Wood	25 piaster/ton/shipment
Processed wood	1 piaster/Kg/shipment maximum 3 L.E/ton/shipment
Paper	½ piaster/Kg/shipment
Carbon paper	1 piaster/Kg/shipment
Boxes	½ piaster/Kg/shipment maximum 3 L.E/ton/shipment
Raw Lenin, silk or Lenin textile	1 L.E/ton/shipment
Carpets	1 L.E/ton/shipment
Processed cement	1 L.E/ton/shipment
Brakes tiles	1 piaster/Kg/shipment
Porcelain, Ceramics and glass	1 L.E/ton/shipment 1 piaster/Kg/shipment
Glass containers	½ piaster/Kg/shipment
Iron Bars	1 L.E/ton/shipment maximum 10,000 L.E/shipment
Gas Cylinders	1 piaster/Kg/shipment maximum 25 piaster/cylinder
Chains and Nails	1 L.E/ton/shipment
Aerosol Boxes	½ piaster/Kg/shipment
Shaving Blades	1 piaster/Kg/shipment
Home light apparatus	1 piaster/Kg/shipment maximum 2 L.E/apparatus
Steam Boiler	½ piaster/Kg/shipment maximum 5 L.E/Boiler
Motors	1 piaster/Kg/shipment maximum 10 L.E/motor
Pumps	1 piaster/Kg/shipment maximum 3 L.E/pump
Air condition	1 piaster/Kg/shipment maximum 5 L.E/apparatus
Refrigerators	1 piaster/Kg/shipment maximum 3 L.E/unit
Filters	5 piaster/Kg/shipment
Dish washers, washing machines	1 piaster/Kg/shipment maximum 3 L.E/units
Fir extinguishers	1 piaster/Kg/shipment maximum 1 L.E/unit

<i>Commodity</i>	<i>Inspection Fee</i>
Elevators	1 piaster/Kg/shipment maximum 10 L.E/unit
Mixers	5 piaster/Kg/shipment
Photovoltaics	1 piaster/Kg/shipment
Iron	1 piaster/Kg/shipment maximum 25 piaster/unit
Radio	25 piaster/unit
Radio cassette	1 L.E/unit
T.V and video	3 L.E/unit
T.V and Video parts	5 piaster/Kg
Motorcycles	1 piaster/Kg/shipment maximum 5 L.E/unit
Motorcycles and spare parts	1 piaster/Kg/shipment maximum 5000 L.E/shipment
Bicycles	1 piaster/Kg/shipment maximum 1 L.E/unit
Bicycles' spare parts	1 piaster/Kg/shipment maximum 2000 L.E/shipment
Trucks (freight & passengers)	1 piaster/Kg/shipment maximum 15 L.E/unit
Eye glasses, and parts	1 piaster/unit 1 piaster/Kg
Watches, and parts	1 piaster/unit 1 piaster/Kg
Wood furniture	1 piaster/unit maximum 3 L.E/ton
Ball points pen	1 piaster/Kg/shipment
Pencil, Black & colored	1 piaster/Kg/shipment
Plastic/ Acleric	1 piaster/Kg/shipment
Gas Heaters	1 piaster/Kg/shipment maximum 3 L.E/unit
Fluorescent starters	1 piaster/Kg/shipment

APPENDIX F

*Products with Mandatory Standards
Administered by the
Ministry of Health*

**Egyptian
Organization For
standardization
and Quality
Control**

**Egyptian Information
Standards service**

Mandatory Standards

1996

Standards Number =====	Standards Title =====	Decree Number =====
** 3/07		
* Animal feeding stuffs		
0003-1/1990	Animal feed - Part 1: Gegeneral provisions for the application of standards to grain used in animal feed .	* 0373-92
0003-2/1990	Animal feed - Part 2: Oats in animal feed .	* 0373-92
0003-3/1990	Animal feed - Part 3: Rye in animal feed .	* 0373-92
0003-4/1990	Animal feed - Part 4: Corn in animal feed .	* 0373-92
0003-5/1990	Animal feed - Part 5: Barley in animal feed .	* 0373-92
0003-6/1990	Animal feed - Part 6: Sorghum in animal feed .	* 0373-92
** 3/03		
* Edible fats and oils		
0049-1/1992	Vegetable edible oils - Part 1: Sesame oil (AMD.1987) .	* 0153-94
0049-2/1993	Vegetable edible oils - Part 2: Edible olive oil .	* 0153-94
0049-3/1993	Vegetable edible oils - Part 3: Edible maize oil .	* 0153-94
0049-4/1992	Vegetable edible oils - Part 4: Edible linseed oil .	* 0153-94
0049-5/1993	Vegetable edible oils - Part 5: Edible arachis oil .	* 0153-94
0049-6/1994	Vegetable edible oils - Part 6: Edible soya bean oil .	* 0153-94
0049-7/1993	Vegetable edible oils - Part 7: Edible sunflowerseed oil .	* 0153-94
0049-8/1993	Vegetable edible oils - Part 8: Edible cotton seed oil grade one .	* 0153-94

Standards Number =====	Standards Title =====	Decree Number =====
0050-1/1994	Hydrogenated oils and margarine - Part 1: Vegetable Samna (AMD.1984.1987) .	* 0206-88
0050-2/1982	Hydrogenated oils and margarine - Part 2: Hydrogenated vegetable oils (AMD.1984).	* 0206-88
0050-3/1994	Hydrogenated oils and margarine - Part 3: Table margarine (AMD.1987) .	* 0206-88
0051/1985	Standard methods for testing edible hydrogenated oils and margarine (AMD.1990) .	* 1064-90 * 0206-88
** 3/13		
* Processed meat,poultry products,bou 0063/1993	Methods of analysis and testing for meat and meat products .	** 0213-85
** 3/06		
* Processed fruits and vegetables 0129/1986	Fruit preserves (AMD.1988.1990) .	* 0047-91 * 0303-86 * 1069-88
0130/1990	Standard methods for testing preserved fruit products .	** 0139-85 ** 0926-86 ** 0281-
0132/1990	Preserved tomato products .	* 0549-91
** 3/02		
* Milk and milk products 0154-1/1991	Milk and milk products - Part 1: Raw milk .	* 0782-91
0155/1974	Physical and chemical methods for testing milk and dairy products .	* 0782-91 * 1151-90

Standards Number =====	Standards Title =====	Decree Number =====
** 3/06		
* Processed fruits and vegetables 0173/1988	Dehydrated potatoes .	* 0123-89
** 3/15		
* Beverages 0189/1962	Alcoholic beverages (AMD.1971)	* 1028-74 * 0351-65
** 3/11		
* Food additives and contaminants 0191/1972	Yeast .	* 0128-89
** 3/09		
* Essential oils ,spices and condimen 0284-1/1992	Mustard - Part 1: Mustard seed and powder .	** 0246-74
0284-2/1992	Mustard - Part 2: Mustard paste .	** 0246-74
** 3/06		
* Processed fruits and vegetables 0285/1986	Raisins .	* 1081-88
** 3/04		
* Cereal,pulses,legumes and derived products 0286-1/1988	Macaroni - Part 1: Macaroni .	** 1072-88
** 3/01		
* Fish and fishery products 0287/1990	Canned sardines .	* 0741-90

Standards Number =====	Standards Title =====	Decree Number =====
** 3/06		
* Processed fruits and vegetables 0335/1994	Canned baked beans .	** 0862-85
** 3/15		
* Beverages 0336-1/1986	Non alcoholic carbonated beverages - Part 1: General .	** 0142-88
0336-2/1987	Non alcoholic carbonated beverages - Part 2: Methods of analysis .	* 0142-88
** 3/05		
* Sugars,cocoa products and chocolate 0355-1/1990	Honey and methods of analysis - Part 1: Honey .	* 0048-91
** 3/04		
* Cereal,pulses,legumes and derived products 0357/1977	Edible starch (REV.1986) .	** 0120-89
** 3/05		
* Sugars,cocoa products and chocolate 0358/1990	Refined sugar and white sugar .	* 0778-91 * 0024/93
0359-2/1993	Glucose syrup and methods of analysis - Part 2: Methods of analysis for glucose syrup .	** 0289-85
** 3/06		
* Processed fruits and vegetables 0360-1/1976	Canned fresh vegetables - Part 1: Peas .	* 0115-85
0360-2/1976	Canned fresh vegetable - Part 2: Okra .	* 0115-85

Standards Number =====	Standards Title =====	Decree Number =====
0360-3/1976	Canned fresh vegetable - Part 3: Aartichoke .	* 0115-85
0360-4/1976	Canned fresh vegetables - Part 4: Beans .	* 0115-85
0360-5/1976	Canned fresh vegetable - Part 5: Spinach .	* 0115/85
** 3/15		
* Beverages 0374/1978	Artificial syrup (AMD.1988) .	* 0212-85 * 1066-88
** 3/06		
* Processed fruits and vegetables 0375/1993	Packed dehydrated dates .	** 0139-85
** 3/11		
* Food additives and contaminants 0383/1970	Vinegar (AMD.1985,1988) .	* 0129-89
** 3/04		
* Cereal,pulses,legumes and derived products 0384,0992,1332/1989	Halawa Tehenia .	* 0189-90
0413/1992	Packaged processed lentils .	** 0071-66
** 3/06		
* Processed fruits and vegetables 0415/1988	Canned cooked dry cowpea and canned cooked dry beans .	** 0071-66
** 3/04		
* Cereal,pulses,legumes and derived products 0416/1988	Biscuits .	* 0072-66

Standards Number =====	Standards Title =====	Decree Number =====
** 3/06		
* 0452/1990	Processed fruits and vegetables Packaged pickles .	* 0045-91
** 3/12		
* 0483/1990	Tobacco and tobacco products Meassel .	* 0417-92
** 3/04		
* 0517,1474/1987	Cereal,pulses,legumes and derived products Coffee and its products (AMD.1992) .	* 0336-87 * 0416-92
** 3/06		
* 0544/1964	Processed fruits and vegetables Canned pears and canned apples (AMD.1988) .	* 1070-88
0545/1974	Canned dates (AMD.1988) .	* 1070-88
** 3/04		
* 0559-1/1991	Cereal,pulses,legumes and derived products Tea - Part 1: Tea .	** 0307-91
0559-2/1991	Tea - Part 2: Methods of analysis and testing for tea .	* 0307-91
** 3/12		
* 0611/1990	Tobacco and tobacco products Pipe tobacco .	* 0417-92
0612,718/1991	Blended tobacco and cigarettes (AMD.1989) .	* 0417-92

Standards Number =====	Standards Title =====	Decree Number =====
** 3/06		
* Processed fruits and vegetables 0683/1994	Methods of testing fruit juices .	** 0281-87 ** 0773-86 ** 0139-
** 3/12		
* Tobacco and tobacco products 0684/1990	Tobacco snuff .	* 0417-92
** 3/06		
* Processed fruits and vegetables 0685/1970	Mnago juice (AMD.1985,1988) .	* 0925-86
0686/1976	Canned orange juice (AMD.1985,1988) .	* 0925-86
0687/1978	Guava juice (AMD.1985,1988) .	* 0925-86
0719/1988	Canned dehydrated cooked peas .	** 0139-85
** 3/11		
* Food additives and contaminants 0742/1991	Cyclamates used for sweetening foodstuffs .	** 0184-90
** 3/12		
* Tobacco and tobacco products 0743/1991	Cigarettes tobacco .	* 0417-92
** 3/09		
* Essential oils ,spices and condimen 0799/1985	Custard powder .	* 0120-89

Standards Number =====	Standards Title =====	Decree Number =====
** 3/05		
* 0800/1985	Sugars,cocoa products and chocolate Jally crystals .	* 0120-89
** 3/11		
* 0803/1966	Food additives and contaminants Baking powder .	* 0186-90
** 3/01		
* 0804/1990	Fish and fishery products Canned tuna and bonito .	* 1150-90
** 3/06		
* 0807/1988	Processed fruits and vegetables Canned mixed vegetables .	* 0125-89
** 3/11		
* 0853/1985	Food additives and contaminants Colouring materials for use in foodstuffs - Sunset Yellow .	* 1081-88
** 2/01		
* 1541/1983	Paints and Varnishes Auto finishes.	*0367-88
** 2/03		
* 1661/1988	Plastics,Resins and Adhasives Tooth brush.	*0598-90
** 2/07		
* 0004/1982	Miscelleneous Chemicals Aluminium sulphate (Alum) for purification of potable water hydrated	*0728-88

Standards Number =====	Standards Title =====	Decree Number =====
** 2/03		
* Plastics,Resins and Adhasives 0848/1987	Unplasticized pvc pipes and fittings for potable water supply.	*0739-90
1717/1989	Unplasticized polyvinylchloride sewage pipes and fittings(partial amd.1991).	*0775-91
** 2/11		
* Building Materials 0056/1986	Clay pipes and fitting for sewers sanitary and indutrial drainage.	*0315-87
** 2/06		
* Rubber and Rubber products 0479/1982	Rubber hose for liquified petroleum household appliances.	*0195-90
** 2/15		
* Petroleum products 0016/1986	Solar and diesel fuel for diesel engines.	**0285-92
0017/1986	Furnace fule(Mazout).	*0406-86
** 2/11		
* Building Materials 1395/1989	Roofing felts.	*0452-92
** 2/02		
* Paper and Paper products 0410/1970	Pencils,lead and copying.	*0546-88

Standards Number =====	Standards Title =====	Decree Number =====
** 2/17		
* Packing,packaging 2253/1992	Polyethylene sacks for packaging of ammonium and phosphatic fertilizers.	**0026-93
** 2/03		
* Plastics,Resins and Adhasives 1206/1973	PVC(vinly) asbestos floor tiles(partial amd.1986).	*0449-78 *0771-86 **0423-92
** 2/04		
* Leather and Leather products 0274/1986	Vegetable or chrome tanned leather	*0725-88
0466/1986	Vegetable or chrome tanned sole leather.	*0725-88
1548/1984	Leather shoes with PVC soles for heavy duty(partial amd.1986).	*0368-88
1496/1980	Artifical leather for garments.	*0368-88
1362/1977	Nappa leather.	* 0368-88
1342/1977	Patent leather.	*0368-88
1889/1990	Shoubak leather for ginning cotton industry.	*0454-92
1367/1977	Artificial leather.	**0368-88
1890/1990	Ginning leather.	*0454-92
** 2/08		
* Fertilisers 0145/1989	Ammonium nitrate fertilizer	*0598-90
1594/1986	Urea fertilizer.	*0412-88

Standards Number =====	Standards Title =====	Decree Number =====
** 2/07		
* Miscellaneous Chemicals		
0006/1982	Chlorinated lime	*0727-88
0273-2/1991	Sodium chloride - Part 2: industrial purposes	**0187-90
0007/1965	Copper sulphate types (1),(2),(3) and (4) (partial amd.1990)	*0726-88
0273-3/1991	Sodium chloride - Part 3: analytical reagent	**0187-90
0273-1/1991	Sodium chloride - Part 1: edible salt	**0187-90
1700/1989	Liquid aluminium sulphate(alum)for purification of potable waters.	*0454-92
1655/1988	Ammonium nitrate for the production of nitrous oxide used as anesthetic for medical purposes.	*0598-90
** 2/09		
* Pestiscides.Insectiscides		
1593/1991	House indecticide(aerosol).	*0374-92
** 2/01		
* Paints and Varnishes		
0382-1/1995	Ethyl Alcohol (Part 1):Ethyl Alcohol Types .	**0525-82
** 2/07		
* Miscellaneous Chemicals		
0012/1988	Safety matches	**0192-90 **0630-82

Standards Number =====	Standards Title =====	Decree Number =====
** 2/10		
* Gases.Pollution 0512/1964	Oxygen (gas.liquid)(partial amd.1991).	*644-69 *0374-92
0613/1986	Nitrous oxide gas(partial amd.1990).	**0412-88 **0374-92
0694/1991	Nitrogen gaseous-liquid.	**0644-69 **0374-92
0695/1977	Carbon dioxide gas.	*0624-83
** 2/07		
* Miscellaneous Chemicals 1561/1985	Pure ammonium nitrate for explosives.	*0412-88
** 2/05		
* Detergents and Soaps 1044/1993	Soap.	**0191-90
0698/1980	Non liquid household detergants.	*0060-82
1526/1982	Glycerine soap.	*0816-89
1643/1987	Liquid detergents for textiles.	*0502-89
1656/1988	Paste detergents for textile.	*0598-90
1644/1987	Non-liquid low foam detergents.	*0815-89
1562/1985	Household liquid detergent.	*0547-88
0717/1983	Tooth paste.	*0185-90
** 2/07		
* Miscellaneous Chemicals 1653/1988	Deodorant.	*0598-90
0444/1963	Eau de cologne(rev.1987).	**0183-90

Standards Number =====	Standards Title =====	Decree Number =====
0443/1991	Perfumes (partial amendment 1984).	**0131-89
** 2/15		
* Petroleum products		
0015/1986	Domestic kerosine.	*0523-86
0014/1991	Automotive gasoline-motor benzene.	**0132-89
1082/1981	Regenerated lubricating oils.	*0382-82
** 2/07		
* Miscellaneous Chemicals		
1592/1986	Foundry coke.	*0189-88
** 2/15		
* Petroleum products		
0018.1469/1986	Liquified petroleum gases.commercial butane-and commercial propane butane mixture.	*0407-86
** 2/14		
* Woods		
1838/1990	Laminated particale board covered with paper impregnated with melamine.	*0454-90
0906-1/1991	Particale boards - Part 1: specifications.	**0454-92
0906-2/1991	Particale boards - Part 2: methods of testing.	**0454-92
0949/1968	Plywood.	*699-88

Standards Number =====	Standards Title =====	Decree Number =====
** 2/12		
* Refractories 2060/1991	Permissible limits of lead and cadmium release from ceramic ware,glass ware,glass ceramic in contact with food.	*0422-92
** 2/13		
* Glass 0353/1970	Sheet or plate glass.	*0441-78
0354/1993	Road vehicles safety glass.	**0441-78
0558/1964	Glass containers for non-alcoholic beverages.	*0699-88
** 2/06		
* Rubber and Rubber products 0331/1963	Rubber heels and soles	**0411-88
0789/1985	Endless V-belt drives for industrial purpose.	*0366-88
** 2/03		
* Plastics,Resins and Adhasives 0332/1991	Melamine tableware	**0371-92
1575/1985	Woven polyethylene and polypropylene sacks.	*0545-88 *0598-90
** 2/04		
* Leather and Leather products 1537/1983	Plastic soles for light duty.	*0441-89
** 2/03		
* Plastics,Resins and Adhasives 1343/1977	Heavy duty polyethylene for open sacs	*0186-82

Standards Number =====	Standards Title =====	Decree Number =====
** 2/06		
* Rubber and Rubber products 1062/1970	Rubber cups for hydraulic actuating cylinders for passenger cars and other moderate duty vehicles(moderate duty and heavy duty).	*0450-78
** 2/03		
* Plastics,Resins and Adhasives 1283-1976	Plastic conduits and fittings for electrical installations.	*0113-77
1585/1985	Adhesive for footwear industry.	*0545-88
** 2/02		
* Paper and Paper products 1425/1978	Multi layer board.	**0774-91
0013/1964	Paper	*0661-69
1115/1980	Carbon paper.	*0546-88
1119/1991	Notebooks.	*0456-92
1897/1990	Self-copy paper.	*0454-92
0745/1985	Corrugated board containers.	*0724-88
** 2/01		
* Paints and Varnishes 0555/1988	Ready mixed oil-based priming paints.	**0397-69
0511/1964	Flatting varnish types 1 & 2(partial amd.1986)	*397-69
0509/1964	Exterior oil varnish types 1,2&3(partial amd.1986)	**0372-92

Standards Number =====	Standards Title =====	Decree Number =====
0388.409/1984	Ready mixed oil based paints for general purposes.	*0624-89
0510/1964	Extra hard drying varnish types 1 & 2(partial amd.1986)	*397-69
0744/1966	Synthetic paints for under coats(partial amd. 1986).	*0445-78
0793/1982	Glossy synthetic air drying enamel for exterior and interior surface.	**0780-91
1539/1993	White plastic emulsion paint for interior and exterior use.	**0367-88
1757/1989	Non glossy synthetic air drying enamel for exterior and interior surface.	*0781-91
0020/1958	Boiled linseed oil for paints(rev.1983)	**0413-88
0715/1966	Synthetic priming paints	*0445-78
1538/1992	Ready mixed oil for paints.	*0452-92
0326/1963	Blue black ink for writing	*0446-78
0327/1972	Dye base inks for writing (blue-green-red-violet-black)(partial amd.1986)	*0446-78
0328/1963	Ink for ball-point pens (partial amd.1986)	*0381-82
** 2/13		
* Glass 1577/1992	Crystal glass.	*0423-92
** 2/11		
* Building Materials 0583/1993	Sulphate resisting portland cement.	**0369-88
0974/1992	Portland blast furnace cement.	**0370-88

Standards Number =====	Standards Title =====	Decree Number =====
0188/1975	Industrial gypsum.	*0699-88
1031/1992	White portland cement.	**0369-88
** 2/13		
* Glass 0373/1991	Portland cement(ordinary and rapid hardening).	*0783-91 *0372-92
** 2/11		
* Building Materials 1078/1971	Mixed portland cement with sand.	*0370-88
0269/1974	Cement tiles.	*0370-88
** 2/16		
* Ceramics 0270,271/1988	Ceramic tiles.	*0950-88
** 2/11		
* Building Materials 0042/1980	Calcium silicate bricks(sand lime bricks).	*0950-88
** 2/16		
* Ceramics 0923/1994	China and stoneware tableware.	**0443-78
** 2/11		
* Building Materials 1524/1993	Fired building unit for bearing walls.	**0950-88
0041/1986	Acid-resisting bricks for lining sewerages tunnels.	*0699-88
1292/1991	Concrete bricks and blocks.	**0950-88 *0372-92

Standards Number =====	Standards Title =====	Decree Number =====
1401/1978	Cellular concrete building units.	*0950-88
0055/1991	Asbestos cement pressure pipes and joints.	*0423-92
** 4/02		
* Weaving_Mpholstery and Twellings 1619/1986	Gabardin cloth (cotton - polyester) .	* 0133-89
** 4/07		
* Miscellaneous 0118.119/1969	Light and heavy absorbent cotton ribbon gauze .	* 0471-70
0117/1969	Unbleached calico cotton bandage	* 0471-70
0120/1969	White absorbent cotton lint . (AMD.1978,1990)	* 0471-70
0115.116/1992	Absorbent medical cotton ribbon gauze .	* 0471-70
0114/1980	Cotton gauze tissue (dressing) . (REV.1989)	* 0471-70
0113/1969	Absorbent medical cotton .	* 0471-70
** 4/02		
* Weaving_Mpholstery and Twellings 1208-1/1988	Cotton fabrics for bed sheets - Part I: Made from ring spinning .	* 0133-89
1603/1993	Man - made fibres blankets	** 0133-89
** 4/07		
* Miscellaneous 1134/1986	Jute ribbons for upholstery .	* 0133-89

Standards Number =====	Standards Title =====	Decree Number =====
0931/1967	Cotton ribbons for slide fasteners .	* 0107-68
** 4/01		
* Fibers And Yarns 0127/1992	Cotton sewing threads .	** 0623-89
0128/1992	Cotton and blended cotton hand - sewing threads .	** 0499-75
1032/1993	Woollen yarns for hand made carpets and extva kelim .	** 0054-86
** 4/09		
* Packajing 0643/1993	Jute or kenaf fabrics .	** 0085-67
0644/1993	Jute or kenaf bags , sockets and sacks .	** 0085-67
** 4/02		
* Weaving_Moholstery and Twellings 1220/1974	Ordinary cotton leno fabrics .	** 1410-75
1174/1972	Cotton ticking jacouard weave .	* 0886-21
1210/1974	Cotton cretone fabrics .	* 1410-75
1630/1987	Polyster/cotton ticking jacouard weave .	* 0133-89
** 4/04		
* Textiles Floor Coverings 0728/1993	Hand - made carpets of all wool oie .	** 0054-86
0998/1987	Machine made carpet wool oie .	* 0133-89
0809/1993	Hand made kelim of wool weft .	** 0054-86

Standards Number =====	Standards Title =====	Decree Number =====
0943/1993	Hand made kelim of 60% wool weft .	** 0054-86
1646/1987	Machine made carpet of man - made fibres .	* 0133-89
** 4/06		
* Ready_Made Clothes 0389-1/1989	Knitted underwear garments - Part 1: Men wear	* 0742-90
** 4/07		
* Miscellaneous 0379/1963	Slide fasteners .	* 0107-68
** 4/02		
* Weaving_Monolstery and Twellings 1489/1980	Cotton flannel bedford fabrics . (REV. 1990)	* 0133-89
1490/1980	Napped stain fabrics . (REV. 1990)	* 0133-89
** 1/23		
* Ferrous Products 0601/1965	Steel pipes for general purposes.	*1032-91
0350/1992	Steel pipes suitable for screwing.	*1032-91
0402/1963	Steel tubes for petroleum pipelines.	*1032-91
0859/1966	Fitting and specials for steel pipes used for general purposes.	*1032-91
0888/1994	Malleable cast iron fittings threaded.	**1032-91
0010/1965	Cast iron pipes and specials for high pressure pipelines.	*1032-91

Standards Number =====	Standards Title =====	Decree Number =====
0186/1978	Cast iron pipes and fitting for sanitary purposes.	*1032-91
** 1/24		
* Non Ferrous Products 1857/1990	Aluminium irrigation tubing.	*1032-91
** 1/23		
* Ferrous Products 0262/1988	Hot rolled steel bars for concrete reinforcement. (partial amd.1993)	**0421-92 *472-92
** 1/13		
* Electrical Household Appliances 0537/1992	Desk type electrical fans.	**0502-82
** 1/12		
* Electrical Installations 0600/1987	Starters for tubular fluorescent lamps.	*0502-82
** 1/07		
* Circuit breakers 0704/1966	Air break knives electric switches.	*0502-82
** 1/12		
* Electrical Installations 0321/1987	Battasts for tubular fluorescent lamps.	*0502-82
** 1/03		
* Electrical Machines 1203/1973	Electrical motors and generators dimensions and rated output.	*0502-82

Standards Number =====	Standards Title =====	Decree Number =====
1086-1/1971	Fractional horse power electric motors and generators - Part 1: Electrical performance.	*0502-82
** 1/02		
* 0029/1987	Primary dry cells batteries.	*0420-92
** 1/09		
* Telecommunications & Information System 0959-1/1989	Aerials for the reception of sound and television broadcasting in the frequency range 30 MHZ to 1 GHZ - Part 1: Electrical and mechanical characteristics.	*0502-82
0959-3/1991	Aerials for the reception of sound and television broadcasting in the frequency range 30 MHZ to 1 GHZ - Part 3: Methods of measurements of mechanical properties.	*0502-82
0959-2/1990	Aerials for the reception of sound and television broadcasting in the frequency range 30 MHZ to 1 GHZ - part 2: Methods of measurements of electrical performance parameters.	*0502-82
** 1/06		
* Insulators 1163/1995	Tests For Ceramic insulators for distribution of Electric power up to 1kV.	*0502-82

Standards Number =====	Standards Title =====	Decree Number =====
** 1/02		
* 0630-3/1965	Electrical heated sterilizing ovens.	**0502-82
** 1/13		
* Electrical Household Appliances		
1634-1/1987	Solar heaters - Part 1: Definitions.	*0002-88
1634-4/1988	Solar heaters - Part 4: Thermal tank.	*0132-89
1634-3/1988	Solar heaters - Part 3: Components of solar flat collectors.	*0132-89
1634-2/1987	Solar heaters - part 2: Solar heating systems.	*0002-88
* 0320/1990	Household electric refrigerators.	*0046-91
* Electrical Household Appliances		
0322-1/1986	Electric irons - Part 1: General.	*0502-82
0378-1/1985	Domestic electric clothes washing machines - Part 1: General	*0378-92
0378-2/1985	Domestic electric clothes washing machines - Part 2: Design and electrical properties.	*0378-92
** 1/15		
* Safety systems		
0251/1962	Portable chemical fire extinguisher of the water type (soda and acid) (partial amd.1974)	**0365-75

Standards Number =====	Standards Title =====	Decree Number =====
0252/1962	Portable chemical fire extinguishers of the foam type (partial amd.1974)	**0365-75
0185/1962	Portable fire extinguishers of the water type under gas pressure	*0365-75
0850/1966	Portable fire extinguishers of the foam type (gas pressure).	*0365-75
0675/1988	Halogenated portable fire extinguishers (Halon 1211 - Halon 1301).	*0376-926
0735/1978	Portable carbon dioxide fire extinguishers.	**0365-75
0734/1992	Portable dry chemical powder fire extinguishers.	*0375-92
** 1/18		
* Road Vehicles		
2006/1991	Method of test for full-flow lubricating oil filters for internal combustion engines elements by pass component characteristics.	*0449-92
2005/1991	Methods of test for full-flow lubricating oil filters for internal combustion engines pressure drop - flow characteristics.	*0449-92
2007/1991	Methods of test for full-flow lubricating oil filters for internal combustion engines resistance to high pressure drop and elevated temperatures.	*0449-92
2008/1991	Methods of test for full-flow lubricating oil filters for internal combustion engines static burst pressure test .	*0449-92
0533/1964	Butane gas cylinder for 26.2 litre. (partial amd.1970)	*0001-66

Standards Number =====	Standards Title =====	Decree Number =====
** 1/20		
* Fluid Machines 0608/1965	Valves for liquified petroleum gas bottles	*0001-66
1160/1990	Water mixers.	*1065-90
** 1/22		
* Household Appliances Operated with gases 0164/1988	Domestic cooking appliances for use with liquified petroleum gases at 30 cm water gauge pressure or natural gas at 20 cm water gauge pressure	*0376-92
0372/1969	Water heaters for use with liquified petroleum gases at 30cm water gauge pressure.	*0001-66
** 1/18		
* Road Vehicles 0918-1/1991	Air filters for internal combustion engines and compressors - Part 1: Technical requirement for preformance test.	*0449-92
0918-2/1991	Air filters for internal combustion engines and compressors - Part 2: Performance test.	*0449-92
2048/1991	Air filter elements for passenger car - dimensions types - C and D .	*0449-92
2047/1991	Air filter elements for commercial vehicles - dimensions types - A and B .	*0449-92
2049/1991	Air filter elements for commercial vehicles - dimensions types - E and F.	*0449-92

Standards Number =====	Standards Title =====	Decree Number =====
1187/1973	General conditions for trailers trucks.	**0300-85
** 1/14		
* 0258.920/1989	Pressure regulator appliances for use with butane - propane gases.	**0190-90
** 1/20		
* Fluid Machines 1190/1993	W.C flushing cisterns (including dual flush cisterns and flush pipes).	**0662-82
** 1/14		
* 0376/1963	Horizontal boilers with fire tubes.	**0348-77

APPENDIX G

*GATT Sanitary and Phytosanitary
Subsidiary Agreement*

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AGREEMENT ON THE APPLICATION OF SANITARY AND PHYTOSANITARY MEASURES

Members,

Reaffirming that no Member should be prevented from adopting or enforcing measures necessary to protect human, animal or plant life or health, subject to the requirement that they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between Members where the same conditions prevail or a disguised restriction on international trade;

Desiring to improve the human health, animal health and phytosanitary situation in all Members;

Noting that sanitary and phytosanitary measures are often applied on the basis of bilateral agreements or protocols;

Desiring the establishment of a multilateral framework of rules and disciplines to guide the adoption, development and the enforcement of sanitary and phytosanitary measures in order to minimize their negative effects on trade;

Recognizing the important contribution that international standards, guidelines and recommendations can make in this regard;

Desiring to further the use of harmonized sanitary and phytosanitary measures between Members, on the basis of international standards, guidelines and recommendations developed by the relevant international organizations, including the Codex Alimentarius Commission, the International Office of Epizootics, and the relevant international and regional organizations operating within the framework of the International Plant Protection Convention, without requiring Members to change their appropriate level of protection of human, animal or plant life or health;

Recognizing that developing country Members may encounter special difficulties in complying with the sanitary or phytosanitary measures of importing Members, and as a consequence, in access to markets, and also in the formulation and application of sanitary or phytosanitary measures in their own territories, and desiring to assist them in their endeavours in this regard;

Desiring therefore to elaborate rules for the application of the provisions of the GATT 1994 which relate to the use of sanitary or phytosanitary measures, in particular the provisions of Article XX(b);

Agree as follows:

1. This Agreement applies to all sanitary and phytosanitary measures which may, directly or indirectly, affect international trade. Such measures shall be developed and applied in accordance with the provisions of this Agreement.
2. For the purposes of this Agreement, the definitions provided in Annex A shall apply.
3. The annexes are an integral part of this Agreement.
4. Nothing in this Agreement shall affect the rights of Members under the Agreement on Technical Barriers to Trade with respect to measures not within the scope of this Agreement.

Basic Rights and Obligations

5. Members have the right to take sanitary and phytosanitary measures necessary for the protection of human, animal or plant life or health, provided that such measures are not inconsistent with the provisions of this Agreement.
6. Members shall ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence, except as provided for in paragraph 22.
7. Members shall ensure that their sanitary and phytosanitary measures do not arbitrarily or unjustifiably discriminate between Members where identical or similar conditions prevail, including between their own territory and other Members. Sanitary and phytosanitary measures shall not be applied in a manner which would constitute a disguised restriction on international trade.
8. Sanitary or phytosanitary measures which conform to the relevant provisions of this Agreement shall be presumed to be in accordance with the obligations of the Members under the provisions of the GATT 1994 which relate to the use of sanitary or phytosanitary measures, in particular the provisions of Article XX(b).

Harmonization

9. To harmonize sanitary and phytosanitary measures on as wide a basis as possible, Members shall base their sanitary or phytosanitary measures on international standards, guidelines or recommendations, where they exist, except as otherwise

provided for in this Agreement, and in particular in paragraph 11.

10. Sanitary or phytosanitary measures which conform to international standards, guidelines or recommendations shall be deemed to be necessary to protect human, animal or plant life or health, and presumed to be consistent with the relevant provisions of this Agreement and of the GATT 1994.

11. Members may introduce or maintain sanitary or phytosanitary measures which result in a higher level of sanitary or phytosanitary protection than would be achieved by measures based on the relevant international standards, guidelines or recommendations, if there is a scientific justification, or as a consequence of the level of protection a Member determines to be appropriate in accordance with the relevant provisions of paragraphs 16 through 23. Notwithstanding the above, all measures which result in a level of sanitary or phytosanitary protection different from that which would be achieved by measures based on international standards, guidelines or recommendations shall not be inconsistent with any other provision of this Agreement.

12. Members shall play a full part within the limits of their resources in the relevant international organizations and their subsidiary bodies, in particular the Codex Alimentarius Commission, the International Office of Epizootics, and in the international and regional organizations operating within the framework of the International Plant Protection Convention, to promote within these organizations the development and periodic review of standards, guidelines and recommendations with respect to all aspects of sanitary and phytosanitary measures. 13. The Committee on Sanitary and Phytosanitary Measures, as provided for in paragraphs 38 and 41, shall develop a procedure to monitor the process of international harmonization and coordinate efforts in this regard with the relevant international organizations.

Equivalence

14. Members shall accept the sanitary or phytosanitary measures of other Members as equivalent, even if these measures differ from their own or from those used by other Members trading in the same product, if the exporting Member objectively demonstrates to the importing Member that its measures achieve the importing Member's appropriate level of sanitary or phytosanitary protection. For this purpose, reasonable access shall be given, upon request, to the importing Member for inspection, testing and other relevant procedures.

15. Members shall, upon request, enter into consultations with the aim of achieving bilateral and multilateral agreements on recognition of the equivalence of specified sanitary or phytosanitary measures. *Assessment of Risk and Determination of the Appropriate Level of Sanitary or Phytosanitary Protection*

16. Members shall ensure that their sanitary or phytosanitary measures are based on an assessment, as appropriate to the circumstances, of the risks to human, animal or plant life or health, taking into account risk assessment techniques developed by the relevant international organizations.

17. In the assessment of risks, Members shall take into account available scientific evidence; relevant processes and production methods; relevant inspection, sampling and testing methods; prevalence of specific diseases or pests; existence of pest-or disease-free areas; relevant ecological and environmental conditions; and quarantine or other treatment.

18. In assessing the risk to animal or plant life or health and determining the measure to be applied for achieving the appropriate level of sanitary or phytosanitary protection from such risk, Members shall take into account as relevant economic factors: the potential damage in terms of loss of production or sales in the event of the entry, establishment or spread of a pest or disease; the costs of control or eradication in the territory of the importing Member; and the relative cost effectiveness of alternative approaches to limiting risks.

19. Members should, when determining the appropriate level of sanitary or phytosanitary protection, take into account the objective of minimizing negative trade effects.

20. With the objective of achieving consistency in the application of the concept of appropriate level of sanitary and phytosanitary protection against risks to human life or health, or to animal and plant life or health, each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade. Members shall co-operate in the Committee on Sanitary and Phytosanitary Measures in accordance with paragraphs 38, 39 and 40 of this Agreement to develop guidelines to further the practical implementation of this provision. In developing the guidelines the Committee shall take into account all relevant factors, including the exceptional character of human health risks to which people voluntarily expose themselves.

21. Without prejudice to paragraph 10, when establishing or maintaining sanitary or phytosanitary measures to achieve the appropriate level of sanitary or phytosanitary protection, Members shall ensure that such measures are not more trade restrictive than required to achieve their appropriate level of protection, taking into account technical and economic feasibility.

22. In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary

measures on the basis of available pertinent information, including that from the relevant international organizations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time.

23. When a Member has reason to believe that a specific sanitary or phytosanitary measure introduced or maintained by another Member is constraining, or has the potential to constrain, its exports and the measure is not based on the relevant international standards, guidelines or recommendations, or such standards, guidelines or recommendations do not exist, an explanation of the reasons for such sanitary or phytosanitary measure may be requested and shall be provided by the Member maintaining the measure.

Adaptation to Regional Conditions, including Pest- or Disease-Free Areas and Areas of Low Pest or Disease Prevalence

24. Members shall ensure that their sanitary or phytosanitary measures are adapted to the sanitary or phytosanitary characteristics of the area - whether a country, part of a country, or areas of several countries - from which the product originated and to which the product is destined. In assessing the sanitary or phytosanitary characteristics of a region, Members shall take into account, inter alia, the level of prevalence of specific diseases or pests, the existence of eradication or control programmes, and appropriate criteria or guidelines which may be developed by the relevant international organizations.

25. Members shall, in particular, recognize the concepts of pest- or disease-free areas and areas of low pest or disease prevalence. Determination of such areas shall be based on factors such as geography, ecosystems, epidemiological surveillance, and the effectiveness of sanitary or phytosanitary controls.

26. Exporting Members claiming that areas within their territories are pest- or disease-free or areas of low pest or disease prevalence shall provide the necessary evidence thereof in order to objectively demonstrate to the importing Member that such areas are, and are likely to remain, pest- or disease-free or areas of low pest or disease prevalence, respectively. For this purpose, reasonable access shall be given, upon request, to the importing Member for inspection, testing and other relevant procedures.

Transparency

27. Members shall notify changes in their sanitary or phytosanitary measures and shall provide information on their sanitary or phytosanitary measures in accordance with the provisions of Annex B.

Control, Inspection and Approval Procedures

28. Members shall observe the provisions of Annex C in the operation of control, inspection and approval procedures, including national systems for approving the use of additives or for establishing tolerances for contaminants in foods, beverages or feedstuffs, and otherwise ensure that their procedures are not inconsistent with the provisions of this Agreement.

Technical Assistance

29. Members agree to facilitate the provision of technical assistance to other Members, especially developing country Members, either bilaterally or through the appropriate international organizations. Such assistance may be, inter alia, in the areas of processing technologies, research and infrastructure, including in the establishment of national regulatory bodies, and may take the form of advice, credits, donations and grants, including for the purpose of seeking technical expertise, training and equipment to allow such countries to adjust to, and comply with, sanitary or phytosanitary measures necessary to achieve the appropriate level of sanitary or phytosanitary protection in their export markets.

30. Where substantial investments are required in order for an exporting developing country Member to fulfil the sanitary or phytosanitary requirements of an importing Member, the latter shall consider providing such technical assistance as will permit the developing country Member to maintain and expand its market access opportunities for the product involved.

Special and Differential Treatment

31. In the preparation and application of sanitary or phytosanitary measures, Members shall take account of the special needs of developing country Members, and in particular of the least-developed ones.

32. Where the appropriate level of sanitary or phytosanitary protection allows scope for the phased introduction of new sanitary or phytosanitary measures, longer time-frames for compliance should be accorded on products of interest to developing country Members so as to maintain opportunities for their exports.

33. With a view to ensuring that developing country Members are able to comply with the provisions of this Agreement, the Committee on Sanitary and Phytosanitary Measures, provided for below, is enabled to grant to such countries, upon request, specified, time-limited exceptions in whole or in part from obligations under this Agreement, taking into account their financial,

trade and development needs.

34. Members should encourage and facilitate the active participation of developing country Members in the relevant international organizations.

Consultations and Dispute Settlement

35. The provisions of Articles XXII and XXIII of the GATT 1994 as elaborated and applied by the WTO Understanding on Rules and Procedures Governing the Settlement of Disputes shall apply to consultations and the settlement of disputes under this Agreement, except as otherwise specifically provided herein.

36. In a dispute under this Agreement involving scientific or technical issues, a panel should seek advice from experts chosen by the panel in consultation with the parties to the dispute. To this end, the panel may, when it deems it appropriate, establish an advisory technical experts group, or consult the relevant international organizations, at the request of either party to the dispute or on its own initiative.

37. Nothing in this Agreement shall impair the rights of Members under other international agreements, including the rights to resort to the good offices or dispute settlement mechanisms of other international organizations or established under any international agreement.

Administration

38. A Committee on Sanitary and Phytosanitary Measures shall be established to provide a regular forum for consultations. It shall carry out the functions necessary to implement the provisions of this Agreement and the furtherance of its objectives, in particular with respect to harmonization. The Committee shall reach its decisions by consensus.

39. The Committee shall encourage and facilitate ad hoc consultations or negotiations among its Members on specific sanitary or phytosanitary issues. The Committee shall encourage the use of international standards, guidelines or recommendations by all Members and, in this regard, shall sponsor technical consultation and study with the objective of increasing coordination and integration between international and national systems and approaches for approving the use of food additives or for establishing tolerances for contaminants in foods, beverages and feedstuffs.

40. The Committee shall maintain close contact with the relevant international organizations in the field of sanitary and phytosanitary protection, especially with the Codex Alimentarius Commission, the International Office of Epizootics, and the Secretariat of the International Plant Protection Convention, with the objective of securing the best available scientific and technical advice for the administration of this Agreement and in order to ensure that unnecessary duplication of effort is avoided.

41. The Committee shall develop a procedure to monitor the process of international harmonization and the use of international standards, guidelines or recommendations. For this purpose, the Committee should, in conjunction with the relevant international organizations, establish a list of international standards, guidelines or recommendations relating to sanitary or phytosanitary measures which the Committee determines to have a major trade impact. The list should include an indication by Members of those international standards, guidelines or recommendations which they apply as conditions for import or on the basis of which imported products conforming to these standards can enjoy access to their markets. For those cases in which a Member does not apply an international standard, guideline or recommendation as a condition for import, the Member should provide an indication of the reason thereof, and, in particular, if it considers that the standard is not stringent enough to provide the appropriate level of sanitary or phytosanitary protection. If a Member revises its position, following its indication of the use of a standard, guideline or recommendation as a condition for import, it should provide an explanation for its change and so inform the WTO Secretariat as well as the relevant international organizations, unless such notification and explanation is given according to the procedures of Annex B.

42. In order to avoid unnecessary duplication, the Committee may decide, as appropriate, to use the information generated by the procedures, particularly for notification, which are in operation in the relevant international organizations.

43. The Committee may, on the basis of an initiative from one of the Members, through appropriate channels invite the relevant international organizations or their subsidiary bodies to examine specific matters with respect to a particular standard, guideline or recommendation, including the basis of explanations for non-use given according to paragraph 41 above.

44. The Committee shall review the operation and implementation of this Agreement three years after entry into force of the Agreement Establishing the WTO, and thereafter as the need arises. Where appropriate, the Committee may submit to the Council for Trade in Goods proposals to amend the text of this Agreement having regard, inter alia, to the experience gained in its implementation.

Implementation

45. Members are fully responsible under this Agreement for the observance of all obligations set forth herein. Members shall formulate and implement positive measures and mechanisms in support of the observance of the provisions of this Agreement by other than central government bodies. Members shall take such reasonable measures as may be available to them to ensure that non-governmental entities within their territories, as well as regional bodies in which relevant entities within their territories are Members, comply with the relevant provisions of this Agreement. In addition, Members shall not take measures which have the effect of, directly or indirectly, requiring or encouraging such regional or non-governmental entities, or local governmental bodies, to act in a manner inconsistent with the provisions of this Agreement. Members shall ensure that they rely on the services of non-governmental entities for implementing sanitary or phytosanitary measures only if these entities comply with the provisions of this Agreement.

Final Provisions

46. The least developed country Members may delay application of the provisions of this Agreement for a period of 5 years following the date of entry into force of the WTO with respect to their sanitary or phytosanitary measures affecting importation or imported products. Other developing country Members may delay application of the provisions of this Agreement, other than paragraphs 23 and 27, for 2 years following the date of entry into force of the Agreement establishing the WTO with respect to their existing sanitary or phytosanitary measures affecting importation or imported products where such application is prevented by a lack of technical expertise, technical infrastructure or resources. ANNEX A

DEFINITIONS

For the purposes of this Agreement, the following definitions shall apply:

1. Sanitary or phytosanitary measure - Any measure applied:

- to protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms;
- to protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs;
- to protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or from the entry, establishment or spread of pests; or
- to prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests.

Sanitary or phytosanitary measures include all relevant laws, decrees, regulations, requirements and procedures including, inter alia, end product criteria; processes and production methods; testing, inspection, certification and approval procedures; quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labelling requirements directly related to food safety.

2. Harmonization - The establishment, recognition and application of common sanitary and phytosanitary measures by different Members.

3. International standards, guidelines and recommendations

- for food safety, the standards, guidelines and recommendations established by the Codex Alimentarius Commission relating to food additives, veterinary drug and pesticide residues, contaminants, methods of analysis and sampling, and codes and guidelines of hygienic practice;
- for animal health and zoonoses, the standards, guidelines and recommendations developed under the auspices of the International Office of Epizootics;
- for plant health, the international standards, guidelines and recommendations developed under the auspices of the Secretariat of the International Plant Protection Convention in co-operation with regional organizations operating within the framework of the International Plant Protection Convention; and
- for matters not covered by the above organizations, appropriate standards, guidelines and recommendations promulgated by other relevant international organizations open for Membership to all Members, as identified by the Committee on Sanitary and Phytosanitary Measures.

4. Risk assessment - The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences; or the evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, feedstuffs and beverages.

5. Appropriate Level of Sanitary or Phytosanitary Protection - The level of protection deemed appropriate by the Member establishing a sanitary or phytosanitary measure to protect human, animal or plant life or health within its territory.

NOTE: Many Members otherwise refer to this concept as the "acceptable level of risk".

6. Pest- or Disease-Free Area - An area, whether all of a country, part of a country, or all or parts of several countries, as identified by the competent authorities, in which a specific pest or disease does not occur.

NOTE: A pest- or disease-free area may surround, be surrounded by, or be adjacent to an area - whether within part of a country or in a geographic region which includes parts of or all of several countries - in which a specific pest or disease is known to occur but is subject to regional control measures such as the establishment of protection, surveillance and buffer zones which will confine or eradicate the pest or disease in question.

7. Area of low pest or disease prevalence - An area, whether all of a country, part of a country, or all or parts of several countries, as identified by the competent authorities, in which a specific pest or disease occurs at low levels and which are subject to effective surveillance, control or eradication measures.

ANNEX B

TRANSPARENCY OF SANITARY AND PHYTOSANITARY REGULATIONS

1. Publication of regulations

1.1 Members shall ensure that all sanitary and phytosanitary regulations which have been adopted are published promptly in such a manner as to enable interested Members to become acquainted with them.

1.2 Except in urgent circumstances, Members shall allow a reasonable interval between the publication of a sanitary or phytosanitary regulation and its entry into force in order to allow time for producers in exporting Members, and particularly in developing country Members, to adapt their products and methods of production to the requirements of the importing Member.

2. Enquiry points

2.1 Each Member shall ensure that one enquiry point exists which is responsible for the provision of answers to all reasonable questions from interested Members as well as for the provision of relevant documents regarding:

- (a) any sanitary or phytosanitary regulations adopted or proposed within its territory;
- (b) any control and inspection procedures, production and quarantine treatment, pesticide tolerance and food additive approval procedures, which are operated within its territory;
- (c) risk assessment procedures, factors taken into consideration, as well as the determination of the appropriate level of sanitary and phytosanitary protection;
- (d) the Membership and participation of the Member, or of relevant bodies within its territory, in international and regional sanitary and phytosanitary organizations and systems, as well as in bilateral and multilateral agreements and arrangements within the scope of this Agreement, and the texts of such agreements and arrangements.

2.2 Members shall ensure that where copies of documents are requested by interested Members, they are supplied at the same price (if any), apart from the cost of delivery, as to the nationals of the Member concerned.

3. Notification procedures

3.1 Whenever an international standard, guideline or recommendation does not exist or the content of a proposed sanitary or phytosanitary regulation is not substantially the same as the content of an international standard, guideline or recommendation, and if the regulation may have a significant effect on trade of other Members, Members shall:

- (a) publish a notice at an early stage in such a manner as to enable interested Members to become acquainted with the proposal to introduce a particular regulation;
- (b) notify other Members, through the WTO Secretariat, of the products to be covered by the regulation together with a brief indication of the objective and rationale of the proposed regulation. Such notifications shall take place at an early stage, when amendments can still be introduced and comments taken into account;
- (c) provide upon request to other Members copies of the proposed regulation and, whenever possible, identify the parts which in substance deviate from international standards, guidelines or recommendations;
- (d) without discrimination, allow reasonable time for other Members to make comments in writing, discuss these comments upon request, and take the comments and the results of the discussions into account.

3.2 However, where urgent problems of health protection arise or threaten to arise for a Member, that Member may omit such of the steps enumerated in paragraph 3.1 of this Annex as it finds necessary, provided that the Member:

- (a) immediately notifies other Members, through the WTO Secretariat, of the particular regulation and the products covered, with a brief indication of the objective and the rationale of the regulation, including the nature of the urgent problem(s);
- (b) provides upon request to other Members copies of the regulation;
- (c) allows other Members to make comments in writing, discusses these comments upon request, and takes the comments and the results of the discussions into account.

3.3 Notifications to the WTO Secretariat shall be in English, French or Spanish.

3.4 Developed country Members shall, if requested by other Members, provide copies of the documents or, in case of voluminous documents, summaries of the documents covered by a specific notification in English, French or Spanish.

3.5 The WTO Secretariat shall promptly circulate copies of the notification to all Members and interested international organizations and draw the attention of developing country Members to any notifications relating to products of particular interest to them.

3.6 Members shall designate one single central government authority as responsible for the implementation, on the national level, of the provisions concerning notification procedures according to paragraphs 3.1, 3.2, 3.3 and 3.4 of this Annex.

4. General reservations

4.1 Nothing in this Agreement shall be construed as requiring:

- (a) the provision of particulars or copies of drafts or the publication of texts other than in the language of the Member except as stated in paragraph 3.4 of this Annex; or
- (b) Members to disclose confidential information which would impede enforcement of sanitary or phytosanitary legislation or which would prejudice the legitimate commercial interests of particular enterprises.

ANNEX C

CONTROL, INSPECTION AND APPROVAL PROCEDURES

1. Members shall ensure, with respect to any procedure to check and ensure the fulfilment of sanitary or phytosanitary measures, that:

- (a) such procedures are undertaken and completed without undue delay and in no less favourable manner for imported products than for like domestic products;
- (b) the standard processing period of each procedure is published or that the anticipated processing period is communicated to the applicant upon request; when receiving an application, the competent body promptly examines the completeness of the documentation and informs the applicant in a precise and complete manner of all deficiencies; the competent body transmits as soon as possible the results of the procedure in a precise and complete manner to the applicant so that corrective action may be taken if necessary; even when the application has deficiencies, the competent body proceeds as far as practicable with the procedure if the applicant so requests; and that upon request, the applicant is informed of the stage of the procedure, with any delay being explained;
- (c) information requirements are limited to what is necessary for appropriate control, inspection and approval procedures, including for approval of the use of additives or for the establishment of tolerances;
- (d) the confidentiality of information about imported products arising from or supplied in connection with control, inspection and approval is respected in a way no less favourable than for domestic products and in such a manner that legitimate commercial interests are protected;
- (e) any requirements for control, inspection and approval of individual specimens of a product are limited to what is reasonable and necessary;
- (f) any fees imposed for the procedures on imported products are equitable in relation to any fees charged on like domestic products or products originating in any other Member and should be no higher than the actual cost of the service;
- (g) the same criteria should be used in the siting of facilities used in the procedures and the selection of samples of imported products as for domestic products so as to minimize the inconvenience to applicants, importers, exporters or their agents;
- (h) whenever specifications of a product are changed subsequent to its control and inspection in light of the applicable regulations, the procedure for the modified product is limited to what is necessary to determine whether adequate confidence exists that the product still meets the regulations concerned; and
- (i) a procedure exists to review complaints concerning the operation of such procedures and to take corrective action when

a complaint is justified.

Where an importing Member operates a system for the approval of the use of food additives or for the establishment of tolerances for contaminants in food, feedstuffs or beverages which prohibits or restricts access to its domestic markets for products based on the absence of an approval, the importing Member shall consider the use of a relevant international standard as the basis for access until a final determination is made.

2. Where a sanitary or phytosanitary measure specifies control at the level of production, the Member in whose territory the production takes place shall provide the necessary assistance to facilitate such control and the work of the controlling authorities.
 3. Nothing in this Agreement shall prevent Members from carrying out reasonable inspection within their own territories.
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APPENDIX H

*GATT Technical Barriers to Trade
Subsidiary Agreement*

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AGREEMENT ON TECHNICAL BARRIERS TO TRADE

Having regard to the Multilateral Trade Negotiations,

Desiring to further the objectives of the GATT 1994;

Recognizing the important contribution that international standards and conformity assessment systems can make in this regard by improving efficiency of production and facilitating the conduct of international trade;

Desiring therefore to encourage the development of such international standards and conformity assessment systems;

Desiring however to ensure that technical regulations and standards, including packaging, marking and labelling requirements, and procedures for assessment of conformity with technical regulations and standards do not create unnecessary obstacles to international trade;

Recognizing that no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal or plant life or health, of the environment, or for the prevention of deceptive practices, at the levels it considers appropriate, subject to the requirement that they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail or a disguised restriction on international trade, and are otherwise in accordance with the provisions of this Agreement. *Recognizing* that no country should be prevented from taking measures necessary for the protection of its essential security interest;

Recognizing the contribution which international standardization can make to the transfer of technology from developed to developing countries;

Recognizing that developing countries may encounter special difficulties in the formulation and application of technical regulations and standards and procedures for assessment of conformity with technical regulations and standards, and *desiring* to assist them in their endeavours in this regard;

Members *hereby* agree as follows:

Article 1

General Provisions

1.1 General terms for standardization and procedures for assessment of conformity shall normally have the meaning given to them by definitions adopted within the United Nations system and by international standardizing bodies taking into account their context and in the light of the object and purpose of this Agreement.

1.2 However, for the purposes of this Agreement the meaning of the terms given in Annex 1 applies.

1.3 All products, including industrial and agricultural products, shall be subject to the provisions of this Agreement.

1.4 Purchasing specifications prepared by governmental bodies for production or consumption requirements of governmental bodies are not subject to the provisions of this Agreement but are addressed in the Agreement on Government Procurement, according to its coverage.

1.5 The provisions of this Agreement do not apply to sanitary and phytosanitary measures as defined in Annex A of the Agreement on Sanitary and Phytosanitary Measures.

1.6 All references in this Agreement to technical regulations, standards and conformity assessment procedures shall be construed to include any amendments thereto and any additions to the rules or the product coverage thereof, except amendments and additions of an insignificant nature.

TECHNICAL REGULATIONS AND STANDARDS

Article 2

Preparation, Adoption and Application of Technical Regulations by Central Government Bodies

With respect to their central government bodies:

2.1 Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in

any other country.

2.2 Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create. Such legitimate objectives are, inter alia, national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, inter alia, available scientific and technical information, related processing technology or intended end uses of products.

2.3 Technical regulations shall not be maintained if the circumstances or objectives giving rise to their adoption no longer exist or if the changed circumstances or objectives can be addressed in a less trade-restrictive manner.

2.4 Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.

2.5 A Member preparing, adopting or applying a technical regulation which may have a significant effect on trade of other Members shall, upon the request of another Member, explain the justification for that technical regulation in terms of the provisions of paragraphs 2 to 4 of Article 2. Whenever a technical regulation is prepared, adopted or applied for one of the legitimate objectives explicitly mentioned in paragraph 2 of Article 2, and is in accordance with relevant international standards, it shall be rebuttably presumed not to create an unnecessary obstacle to international trade.

2.6 With a view to harmonizing technical regulations on as wide a basis as possible, Members shall play a full part, within the limits of their resources, in the preparation by appropriate international standardizing bodies of international standards for products for which they either have adopted, or expect to adopt, technical regulations.

2.7 Members shall give positive consideration to accepting as equivalent technical regulations of other Members, even if these regulations differ from their own, provided they are satisfied that these regulations adequately fulfil the objectives of their own regulations.

2.8 Wherever appropriate, Members shall specify technical regulations based on product requirements in terms of performance rather than design or descriptive characteristics.

2.9 Whenever a relevant international standard does not exist or the technical content of a proposed technical regulation is not in accordance with the technical content of relevant international standards, and if the technical regulation may have a significant effect on trade of other Members, Members shall:

2.9.1 publish a notice in a publication at an early appropriate stage, in such a manner as to enable interested parties in other Members to become acquainted with it, that they propose to introduce a particular technical regulation;

2.9.2 notify other Members through the WTO Secretariat of the products to be covered by the proposed technical regulation, together with a brief indication of its objective and rationale; such notifications shall take place at an early appropriate stage, when amendments can still be introduced and comments taken into account;

2.9.3 upon request, provide to other Members, particulars or copies of the proposed technical regulation and, whenever possible, identify the parts which in substance deviate from relevant international standards;

2.9.4 without discrimination, allow reasonable time for other Members to make comments in writing, discuss these comments upon request, and take these written comments and the results of these discussions into account.

2.10 Subject to the provisions in the lead-in to Article 2, paragraph 9, where urgent problems of safety, health, environmental protection or national security arise or threaten to arise for a Member, that Member may omit such of the steps enumerated in Article 2, paragraph 9, as it finds necessary provided that the Member, upon adoption of a technical regulation, shall:

2.10.1 notify immediately other Members through the WTO Secretariat of the particular technical regulation and the products covered, with a brief indication of the objective and the rationale of the technical regulation, including the nature of the urgent problems;

2.10.2 upon request, provide other Members with copies of the technical regulation;

2.10.3 without discrimination, allow other Members to present their comments in writing, discuss these comments upon request, and take these written comments and the results of these discussions into account.

2.11 Members shall ensure that all technical regulations which have been adopted are published promptly or otherwise made available in such a manner as to enable interested parties in other Members to become acquainted with them.

2.12 Except in those urgent circumstances referred to in Article 2, paragraph 10, Members shall allow a reasonable interval between the publication of a technical regulation and its entry into force in order to allow time for producers in exporting Members, and particularly in developing country Members, to adapt their products or methods of production to the requirements of the importing Member.

Article 3

Preparation, Adoption and Application of Technical Regulations by Local Government Bodies and Non-Governmental Bodies

With respect to their local government and non-governmental bodies within their territories:

3.1 Members shall take such reasonable measures as may be available to them to ensure compliance by such bodies with the provisions of Article 2, with the exception of the obligation to notify as referred to in paragraphs 9.2 and 10.1 of Article 2.

3.2 Members shall ensure that the technical regulations of local governments on the level directly below that of the central government in Members are notified in accordance with the provisions of Article 2, paragraphs 9.2 and 10.1, noting that notification shall not be required for technical regulations the technical content of which is substantially the same as that of previously notified technical regulations of central government bodies of the Member concerned.

3.3 Members may require contact with other Members, including the notifications, provision of information, comments and discussions referred to in paragraphs 9 and 10 of Article 2, to take place through the central government.

3.4 Members shall not take measures which require or encourage local government bodies or non-governmental bodies within their territories to act in a manner inconsistent with the provisions of Article 2.

3.5 Members are fully responsible under this Agreement for the observance of all provisions of Article 2. Members shall formulate and implement positive measures and mechanisms in support of the observance of the provisions of Article 2 by other than central government bodies.

Article 4

Preparation, Adoption and Application of Standards

4.1 Members shall ensure that their central government standardizing bodies accept and comply with the Code of good practice for the preparation, adoption and application of standards in Annex 3 to this Agreement. They shall take such reasonable measures as may be available to them to ensure that local government and non-governmental standardizing bodies within their territories as well as regional standardizing bodies of which they or one or more bodies within their territories are members, accept and comply with this Code of good practice. In addition, Members shall not take measures which have the effect of, directly or indirectly, requiring or encouraging such standardizing bodies to act in a manner inconsistent with the Code of good practice in Annex 3. The obligations of Members with respect to compliance of standardizing bodies with the provisions of the Code of good practice shall apply irrespective of whether or not a standardizing body has accepted the Code of good practice.

4.2 Standardizing bodies that have accepted and are complying with the Code of good practice in Annex 3 shall be acknowledged by the Members as complying with the principles of this Agreement.

CONFORMITY WITH TECHNICAL REGULATIONS AND STANDARDS Article 5

Procedures for Assessment of Conformity by Central Government Bodies

5.1 Members shall ensure that, in cases where a positive assurance of conformity with technical regulations or standards is required, their central government bodies apply the following provisions to products originating in the territories of other Members:

5.1.1 conformity assessment procedures are prepared, adopted and applied so as to grant access for suppliers of like products originating in the territories of other Members under conditions no less favourable than those accorded to suppliers of like products of national origin or originating in any other country, in a comparable situation; access entails suppliers' right to an assessment of conformity under the rules of the procedure, including, when foreseen by this procedure, the possibility to have conformity assessment activities undertaken at the site of facilities and to receive the mark of the system;

5.1.2 conformity assessment procedures are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. This means, inter alia, that conformity assessment procedures shall not be more strict or be applied more strictly than is necessary to give the importing Member adequate confidence that products conform with the applicable technical regulations or standards, taking account of the risks non-conformity would create.

5.2 When implementing the provisions of paragraph 1 of Article 5, Members shall ensure that:

5.2.1 conformity assessment procedures are undertaken and completed as expeditiously as possible and in a no less favourable order for products originating in the territories of other Members than for like domestic products;

5.2.2 the standard processing period of each conformity assessment procedure is published or that the anticipated processing period is communicated to the applicant upon request; when receiving an application, the competent body promptly examines the completeness of the documentation and informs the applicant in a precise and complete manner of all deficiencies; the competent body transmits as soon as possible the results of the assessment in a precise and complete manner to the applicant so that corrective action may be taken if necessary; even when the application has deficiencies, the competent body proceeds as far as practicable with the conformity assessment if the applicant so requests; and that, upon request, the applicant is informed of the stage of the procedure, with any delay being explained;

5.2.3 information requirements are limited to what is necessary to assess conformity and determine fees;

5.2.4 the confidentiality of information about products originating in the territories of other Members arising from or supplied in connection with such conformity assessment procedures is respected in the same way as for domestic products and in such a manner that legitimate commercial interests are protected;

5.2.5 any fees imposed for assessing the conformity of products originating in the territories of other Members are equitable in relation to any fees chargeable for assessing the conformity of like products of national origin or originating in any other country, taking into account communication, transportation and other costs arising from differences between location of facilities of the applicant and the conformity assessment body;

5.2.6 the siting of facilities used in conformity assessment procedures and the selection of samples are not such as to cause unnecessary inconvenience to applicants or their agents;

5.2.7 whenever specifications of a product are changed subsequent to its determination of conformity to the applicable technical regulations or standards, the conformity assessment procedure for the modified product is limited to what is necessary to determine whether adequate confidence exists that the product still meets the technical regulations or standards concerned;

5.2.8 a procedure exists to review complaints concerning the operation of a conformity assessment procedure and to take corrective action when a complaint is justified.

5.3 Nothing in paragraphs 1 and 2 of Article 5 shall prevent Members from carrying out reasonable spot checks within their territories.

5.4 In cases where a positive assurance is required that products conform with technical regulations or standards, and relevant guides or recommendations issued by international standardizing bodies exist or their completion is imminent, Members shall ensure that central government bodies use them, or the relevant parts of them, as a basis for their conformity assessment procedures, except where, as duly explained upon request, such guides or recommendations or relevant parts are inappropriate for the Members concerned, for, inter alia, such reasons as national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment; fundamental climatic or other geographical factors; fundamental technological or infrastructural problems.

5.5 With a view to harmonizing conformity assessment procedures on as wide a basis as possible, Members shall play a full part within the limits of their resources in the preparation by appropriate international standardizing bodies of guides and recommendations for conformity assessment procedures.

5.6 Whenever a relevant guide or recommendation issued by an international standardizing body does not exist or the technical content of a proposed conformity assessment procedure is not in accordance with relevant guides and recommendations issued by international standardizing bodies, and if the conformity assessment procedure may have a significant effect on trade of other Members, Members shall:

5.6.1 publish a notice in a publication at an early appropriate stage, in such a manner as to enable interested parties in other Members to become acquainted with it, that they propose to introduce a particular conformity assessment procedure;

5.6.2 notify other Members through the WTO Secretariat of the products to be covered by the proposed conformity assessment procedure, together with a brief indication of its objective and rationale. Such notifications shall take place at an early appropriate stage, when amendments can still be introduced and comments taken into account;

5.6.3 upon request, provide to other Members particulars or copies of the proposed procedure and, whenever possible, identify the parts which in substance deviate from relevant guides or recommendations issued by international standardizing bodies;

5.6.4 without discrimination, allow reasonable time for other Members to make comments in writing, discuss these comments upon request, and take these written comments and the results of these discussions into account.

5.7 Where urgent problems of safety, health, environmental protection or national security arise or threaten to arise for a Member, that Member may omit such of the steps enumerated in paragraph 6 of Article 5 as it finds necessary provided that the Member, upon adoption of the procedure, shall:

5.7.1 notify immediately other Members through the WTO Secretariat of the particular procedure and the products covered, with a brief indication of the objective and the rationale of the procedure, including the nature of the urgent problems;

5.7.2 upon request, provide other Members with copies of the rules of the procedure;

5.7.3 without discrimination, allow other Members to present their comments in writing, discuss these comments upon request, and take these written comments and the results of these discussions into account.

5.8 Members shall ensure that all conformity assessment procedures which have been adopted are published promptly or otherwise made available in such a manner as to enable interested parties in other Members to become acquainted with them.

5.9 Except in those urgent circumstances referred to in paragraph 7 of Article 5, Members shall allow a reasonable interval between the publication of requirements concerning conformity assessment procedures and their entry into force in order to allow time for producers in exporting Members, and particularly in developing country Members, to adapt their products or methods of production to the requirements of the importing Member.

Article 6

Recognition of Conformity Assessment by Central Government Bodies

With respect to their central government bodies:

6.1 Without prejudice to the provisions of Article 6, paragraphs 3 and 4, Members shall ensure, whenever possible, that results of conformity assessment procedures in other Members are accepted, even when those procedures differ from their own, provided they are satisfied that those procedures offer an assurance of conformity with applicable technical regulations or standards equivalent to their own procedures. It is recognized that prior consultations may be necessary in order to arrive at a mutually satisfactory understanding regarding, in particular:

(a) adequate and enduring technical competence of the relevant conformity assessment bodies in the exporting Member, so that confidence in the continued reliability of their conformity assessment results can exist; in this regard, verified compliance, for instance through accreditation, with relevant guides or recommendations issued by international standardizing bodies shall be taken into account as an indication of adequate technical competence;

(b) limitation of the acceptance of conformity assessment results to those produced by designated bodies in the exporting Member.

6.2 Members shall ensure that their conformity assessment procedures permit, as far as practicable, the implementation of the provisions in paragraph 1 of Article 6.

6.3 Members are encouraged, at the request of other Members, to be willing to enter into negotiations for the conclusion of agreements for the mutual recognition of results of each other's conformity assessment procedures. Members may require that such agreements fulfil the criteria of Article 6, paragraph 1, and give mutual satisfaction regarding their potential for facilitating trade in the products concerned.

6.4 Members are encouraged to permit participation of conformity assessment bodies located in the territories of other Members in their conformity assessment procedures under conditions no less favourable than those accorded to bodies located within their territory or the territory of any other country.

Article 7

Procedures for Assessment of Conformity by Local Government Bodies

With respect to their local government bodies within their territories:

7.1 Members shall take such reasonable measures as may be available to them to ensure compliance by such bodies with the provisions of Articles 5 and 6, with the exception of the obligation to notify as referred to in paragraphs 6.2 and 7.1 of Article 5.

7.2 Members shall ensure that the conformity assessment procedures of local governments on the level directly below that of the central government in Members are notified in accordance with the provisions of paragraphs 6.2 and 7.1 of Article 5, noting that notifications shall not be required for conformity assessment procedures the technical content of which is substantially the same

as that of previously notified conformity assessment procedures of central government bodies of the Members concerned.

7.3 Members may require contact with other Members, including the notifications, provision of information, comments and discussions referred to in paragraphs 6 and 7 of Article 5, to take place through the central government.

7.4 Members shall not take measures which require or encourage local government bodies within their territories to act in a manner inconsistent with the provisions of Articles 5 and 6.

7.5 Members are fully responsible under this Agreement for the observance of all provisions of Articles 5 and 6. Members shall formulate and implement positive measures and mechanisms in support of the observance of the provisions of Articles 5 and 6 by other than central government bodies.

Article 8

Procedures for Assessment of Conformity by Non-Governmental Bodies

8.1 Members shall take such reasonable measures as may be available to them to ensure that non-governmental bodies within their territories which operate conformity assessment procedures comply with the provisions of Articles 5 and 6, with the exception of the obligation to notify proposed conformity assessment procedures. In addition, Members shall not take measures which have the effect of, directly or indirectly, requiring or encouraging such bodies to act in a manner inconsistent with the provisions of Articles 5 and 6.

8.2 Members shall ensure that their central government bodies rely on conformity assessment procedures operated by non-governmental bodies only if these latter bodies comply with the provisions of Articles 5 and 6, with the exception of the obligation to notify proposed conformity assessment procedures.

Article 9

International and Regional Systems

9.1 Where a positive assurance of conformity with a technical regulation or standard is required, Members shall, wherever practicable, formulate and adopt international systems for conformity assessment and become members thereof or participate therein.

9.2 Members shall take such reasonable measures as may be available to them to ensure that international and regional systems for conformity assessment, in which relevant bodies within their territories are members or participants, comply with the provisions of Articles 5 and 6. In addition, Members shall not take any measures which have the effect of, directly or indirectly, requiring or encouraging such systems to act in a manner inconsistent with any of the provisions of Articles 5 and 6.

9.3 Members shall ensure that their central government bodies rely on international or regional conformity assessment systems only to the extent that these systems comply with the provisions of Articles 5 and 6, as applicable.

INFORMATION AND ASSISTANCE

Article 10

Information About Technical Regulations, Standards and Conformity Assessment Procedures

10.1 Each Member shall ensure that an enquiry point exists which is able to answer all reasonable enquiries from other Members and interested parties in other Members as well as to provide the relevant documents regarding:

10.1.1 any technical regulations adopted or proposed within its territory by central or local government bodies, by non-governmental bodies which have legal power to enforce a technical regulation, or by regional standardizing bodies of which such bodies are members or participants;

10.1.2 any standards adopted or proposed within its territory by central or local government bodies, or by regional standardizing bodies of which such bodies are members or participants;

10.1.3 any conformity assessment procedures, or proposed conformity assessment procedures, which are operated within its territory by central or local government bodies, or by non-governmental bodies which have legal power to enforce a technical regulation, or by regional bodies of which such bodies are members or participants;

10.1.4 the membership and participation of the Member, or of relevant central or local government bodies within its territory, in international and regional standardizing bodies and conformity assessment systems, as well as in bilateral and multilateral arrangements within the scope of this Agreement; they shall also be able to provide reasonable information on the provisions of such systems and arrangements;

10.1.5 the location of notices published pursuant to this Agreement, or the provision of information as to where such information can be obtained; and

10.1.6 the location of the enquiry points mentioned in paragraph 3 of Article 10.

10.2 If, however, for legal or administrative reasons more than one enquiry point is established by a Member, that Member shall provide to the other Members complete and unambiguous information on the scope of responsibility of each of these enquiry points. In addition, that Member shall ensure that any enquiries addressed to an incorrect enquiry point shall promptly be conveyed to the correct enquiry point.

10.3 Each Member shall take such reasonable measures as may be available to it to ensure that one or more enquiry points exist which are able to answer all reasonable enquiries from other Members and interested parties in other Members as well as to provide the relevant documents or information as to where they can be obtained regarding:

10.3.1 any standards adopted or proposed within its territory by non- governmental standardizing bodies, or by regional standardizing bodies of which such bodies are members or participants; and

10.3.2 any conformity assessment procedures, or proposed conformity assessment procedures, which are operated within its territory by non-governmental bodies, or by regional bodies of which such bodies are members or participants;

10.3.3 the membership and participation of relevant non-governmental bodies within its territory in international and regional standardizing bodies and conformity assessment systems, as well as in bilateral and multilateral arrangements within the scope of this Agreement; they shall also be able to provide reasonable information on the provisions of such systems and arrangements.

10.4 Members shall take such reasonable measures as may be available to them to ensure that where copies of documents are requested by other Members or by interested parties in other Members, in accordance with the provisions of this Agreement, they are supplied at an equitable price (if any) which shall, apart from the real cost of delivery, be the same for the nationals of the Member concerned or of any other Member.

10.5 Developed country Members shall, if requested by other Members, provide, in English, French or Spanish, translations of the documents covered by a specific notification or, in case of voluminous documents, of summaries of such documents.

10.6 The WTO Secretariat will, when it receives notifications in accordance with the provisions of this Agreement, circulate copies of the notifications to all Members and interested international standardizing and conformity assessment bodies, and draw the attention of developing country Members to any notifications relating to products of particular interest to them.

10.7 Whenever a Member has reached an agreement with any other country or countries on issues related to technical regulations, standards or conformity assessment procedures which may have a significant effect on trade, at least one Member to the agreement shall notify other Members through the WTO Secretariat of the products to be covered by the agreement and include a brief description of the agreement. Members concerned are encouraged to enter, upon request, into consultations with other Members for the purposes of concluding similar agreements or of arranging for their participation in such agreements.

10.8 Nothing in this Agreement shall be construed as requiring:

10.8.1 the publication of texts other than in the language of the Member;

10.8.2 the provision of particulars or copies of drafts other than in the language of the Member except as stated in paragraph 5 of Article 10; or

10.8.3 Members to furnish any information, the disclosure of which they consider contrary to their essential security interests.

10.9 Notifications to the WTO Secretariat shall be in English, French or Spanish.

10.10 Members shall designate a single central government authority that is responsible for the implementation on the national level of the provisions concerning notification procedures under this Agreement except those included in Annex 3.

10.11 If, however, for legal or administrative reasons the responsibility for notification procedures is divided among two or more central government authorities, the Member concerned shall provide to the other Members complete and unambiguous information on the scope of responsibility of each of these authorities.

Article 11

Technical Assistance to Other Members

11.1 Members shall, if requested, advise other Members, especially the developing country Members, on the preparation of technical regulations.

11.2 Members shall, if requested, advise other Members, especially the developing country Members and shall grant them technical assistance on mutually agreed terms and conditions regarding the establishment of national standardizing bodies, and participation in the international standardizing bodies, and shall encourage their national standardizing bodies to do likewise.

11.3 Members shall, if requested, take such reasonable measures as may be available to them to arrange for the regulatory bodies within their territories to advise other Members, especially the developing country Members, and shall grant them technical assistance on mutually agreed terms and conditions regarding:

11.3.1 the establishment of regulatory bodies, or bodies for the assessment of conformity with technical regulations; and

11.3.2 the methods by which their technical regulations can best be met.

11.4 Members shall, if requested, take such reasonable measures as may be available to them to arrange for advice to be given to other Members, especially the developing country Members, and shall grant them technical assistance, on mutually agreed terms and conditions, regarding the establishment of bodies for the assessment of conformity with standards adopted within the territory of the requesting Member.

11.5 Members shall, if requested, advise other Members, especially the developing country Members, and shall grant them technical assistance, on mutually agreed terms and conditions, regarding the steps that should be taken by their producers if they wish to have access to systems for conformity assessment operated by governmental or non-governmental bodies within the territory of the Member receiving the request.

11.6 Members which are members or participants of international or regional systems for conformity assessment shall, if requested, advise other Members, especially the developing country Members, and shall grant them technical assistance, on mutually agreed terms and conditions, regarding the establishment of the institutions and legal framework which would enable them to fulfil the obligations of membership or participation in such systems.

11.7 Members shall, if so requested, encourage bodies within their territories which are members or participants of international or regional systems for conformity assessment to advise other Members, especially the developing country Members, and should consider requests for technical assistance from them regarding the establishment of the institutions which would enable the relevant bodies within their territories to fulfil the obligations of membership or participation.

11.8 In providing advice and technical assistance to other Members in terms of Article 11, paragraphs 1 to 7, Members shall give priority to the needs of the least-developed country Members.

Article 12

Special and Differential Treatment of Developing Country Members

12.1 Members shall provide differential and more favourable treatment to developing country Members to this Agreement, through the following provisions as well as through the relevant provisions of other Articles of this Agreement.

12.2 Members shall give particular attention to the provisions of this Agreement concerning developing country Members' rights and obligations and shall take into account the special development, financial and trade needs of developing country Members in the implementation of this Agreement, both nationally and in the operation of this Agreement's institutional arrangements.

12.3 Members shall, in the preparation and application of technical regulations, standards and conformity assessment procedures, take account of the special development, financial and trade needs of developing country Members, with a view to ensuring that such technical regulations, standards and conformity assessment procedures do not create unnecessary obstacles to exports from developing country Members.

12.4 Members recognize that, although international standards, guides or recommendations may exist, in their particular technological and socio-economic conditions, developing country Members adopt certain technical regulations, standards or conformity assessment procedures aimed at preserving indigenous technology and production methods and processes compatible with their development needs. Members therefore recognize that developing country Members should not be expected to use international standards as a basis for their technical regulations or standards, including test methods, which are not appropriate to their development, financial and trade needs.

12.5 Members shall take such reasonable measures as may be available to them to ensure that international standardizing bodies and international systems for conformity assessment are organized and operated in a way which facilitates active and representative participation of relevant bodies in all Members, taking into account the special problems of developing country Members.

12.6 Members shall take such reasonable measures as may be available to them to ensure that international standardizing bodies, upon request of developing country Members, examine the possibility of, and, if practicable, prepare international standards

concerning products of special interest to developing country Members.

12.7 Members shall, in accordance with the provisions of Article 11, provide technical assistance to developing country Members to ensure that the preparation and application of technical regulations, standards and conformity assessment procedures do not create unnecessary obstacles to the expansion and diversification of exports from developing country Members. In determining the terms and conditions of the technical assistance, account shall be taken of the stage of development of the requesting Members and in particular of the least-developed country Members.

12.8 It is recognized that developing country Members may face special problems, including institutional and infrastructural problems, in the field of preparation and application of technical regulations, standards and conformity assessment procedures. It is further recognized that the special development and trade needs of developing country Members, as well as their stage of technological development, may hinder their ability to discharge fully their obligations under this Agreement. Members, therefore, shall take this fact fully into account. Accordingly, with a view to ensuring that developing country Members are able to comply with this Agreement, the Committee is enabled to grant, upon request, specified, time-limited exceptions in whole or in part from obligations under this Agreement. When considering such requests the Committee shall take into account the special problems, in the field of preparation and application of technical regulations, standards and conformity assessment procedures, and the special development and trade needs of the developing country Member, as well as its stage of technological development, which may hinder its ability to discharge fully its obligations under this Agreement. The Committee shall, in particular, take into account the special problems of the least-developed country Members.

12.9 During consultations, developed country Members shall bear in mind the special difficulties experienced by developing country Members in formulating and implementing standards and technical regulations and conformity assessment procedures, and in their desire to assist developing country Members with their efforts in this direction, developed country Members shall take account of the special needs of the former in regard to financing, trade and development.

12.10 The Committee shall examine periodically the special and differential treatment, as laid down in this Agreement, granted to developing country Members on national and international levels.

INSTITUTIONS, CONSULTATION AND DISPUTE SETTLEMENT

Article 13

The Committee on Technical Barriers to Trade

There shall be established under this Agreement:

13.1 A Committee on Technical Barriers to Trade composed of representatives from each of the Members (hereinafter referred to as "the Committee"). The Committee shall elect its own Chairman and shall meet as necessary, but no less than once a year for the purpose of affording Members the opportunity of consulting on any matters relating to the operation of this Agreement or the furtherance of its objectives, and shall carry out such responsibilities as assigned to it under this Agreement or by the Members.

13.2 Working parties or other bodies as may be appropriate, which shall carry out such responsibilities as may be assigned to them by the Committee in accordance with the relevant provisions of this Agreement.

13.3 It is understood that unnecessary duplication should be avoided between the work under this Agreement and that of governments in other technical bodies. The Committee shall examine this problem with a view to minimizing such duplication.

Article 14

Consultation and Dispute Settlement

14.1 Consultations and the settlement of disputes with respect to any matter affecting the operation of this Agreement shall take place under the auspices of the Dispute Settlement Body and shall follow, mutatis mutandis, the provisions of Articles XXII and XXIII of the GATT 1994, as elaborated and applied by the Understanding Governing the Rules and Procedures for Settlement of Disputes

14.2 At the request of a party to a dispute, or at its own initiative, a panel may establish a technical expert group to assist in questions of a technical nature, requiring detailed consideration by experts.

14.3 Technical expert groups shall be governed by the procedures of Annex 2.

14.4 The dispute settlement provisions set out above can be invoked in cases where a Member considers that another Member has not achieved satisfactory results under Articles 3, 4, 7, 8 and 9 and its trade interests are significantly affected. In this respect, such results shall be equivalent to those as if the body in question were a Member.

FINAL PROVISIONS

*Article 15**Final Provisions**Reservations*

15.1 Reservations may not be entered in respect of any of the provisions of this Agreement without the consent of the other Members.

Review

15.2 Each Member shall, promptly after the date on which the Agreement Establishing the WTO enters into force for it, inform the Committee of measures in existence or taken to ensure the implementation and administration of this Agreement. Any changes of such measures thereafter shall also be notified to the Committee.

15.3 The Committee shall review annually the implementation and operation of this Agreement taking into account the objectives thereof.

15.4 Not later than the end of the third year from the entry into force of the Agreement Establishing the WTO and at the end of each three-year period thereafter, the Committee shall review the operation and implementation of this Agreement, including the provisions relating to transparency, with a view to recommending an adjustment of the rights and obligations of this Agreement where necessary to ensure mutual economic advantage and balance of rights and obligations, without prejudice to the provisions of Article 12. Having regard, inter alia, to the experience gained in the implementation of the Agreement, the Committee shall, where appropriate, submit proposals for amendments to the text of this Agreement to the Council for Trade in Goods.

Annexes

15.5 The annexes to this Agreement constitute an integral part thereof.

ANNEX 1**TERMS AND THEIR DEFINITIONS FOR THE PURPOSE OF THIS AGREEMENT**

The terms presented in the sixth edition of the ISO/IEC Guide 2: 1991, General Terms and Their Definitions Concerning Standardization and Related Activities, shall, when used in this Agreement, have the same meaning as given in the definitions in the said Guide taking into account that services are excluded from the coverage of this Agreement.

For the purpose of this Agreement; however, the following definitions shall apply:

1. Technical regulation

Document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.

Explanatory note

The definition in ISO/IEC Guide 2 is not self-contained, but based on the so-called "building block" system.

2. Standard

For the term "Standard" the following definition shall apply:

Document approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.

Explanatory note

The terms as defined in ISO/IEC Guide 2 cover products, processes and services. This agreement deals only with technical regulations, standards and conformity assessment procedures related to products or processes and production methods. Standards as defined by ISO/IEC Guide 2 may be mandatory or voluntary. For the purpose of this Agreement standards are defined as voluntary and technical regulations as mandatory documents. Standards prepared by the international standardization community are based on consensus. This Agreement covers also documents that are not based on consensus.

3. Conformity assessment procedures

Any procedure used, directly or indirectly, to determine that relevant requirements in technical regulations or standards are

fulfilled.

Explanatory note: Conformity assessment procedures include, inter alia, procedures for sampling, testing and inspection; evaluation, verification and assurance of conformity; registration, accreditation and approval as well as their combinations.

4. International body or system

Body or system whose membership is open to the relevant bodies of at least all Members.

5. Regional body or system

Body or system whose membership is open to the relevant bodies of only some of the Members.

6. Central government body

Central government, its ministries and departments or any body subject to the control of the central government in respect of the activity in question.

Explanatory note:

In the case of the European Communities the provisions governing central government bodies apply. However, regional bodies or conformity assessment systems may be established within the European Communities, and in such cases would be subject to the provisions of this Agreement on regional bodies or conformity assessment systems.

7. Local government body

Government other than a central government (e.g. states, provinces, Länder, cantons, municipalities, etc.), its ministries or departments or any body subject to the control of such a government in respect of the activity in question.

8. Non-governmental body

Body other than a central government body or a local government body, including a non-governmental body which has legal power to enforce a technical regulation.

ANNEX 2

TECHNICAL EXPERT GROUPS

The following procedures shall apply to technical expert groups established in accordance with the provisions of Article 14.

1. Technical expert groups are under the panel's authority. Their terms of reference and detailed working procedures shall be decided by the panel, and they shall report to the panel.
2. Participation in technical expert groups shall be restricted to persons of professional standing and experience in the field in question.
3. Citizens of parties to the dispute shall not serve on a technical expert group without the joint agreement of the parties to the dispute, except in exceptional circumstances when the panel considers that the need for specialized scientific expertise cannot be fulfilled otherwise. Government officials of parties to the dispute shall not serve on a technical expert group. Members of technical expert groups shall serve in their individual capacities and not as government representatives, nor as representatives of any organization. Governments or organizations shall therefore not give them instructions with regard to matters before a technical expert group.
4. Technical expert groups may consult and seek information and technical advice from any source they deem appropriate. Before a technical expert group seeks such information or advice from a source within the jurisdiction of a Member, it shall inform the government of that Member. Any Member shall respond promptly and fully to any request by a technical expert group for such information as the technical expert group considers necessary and appropriate.
5. The parties to a dispute shall have access to all relevant information provided to a technical expert group, unless it is of a confidential nature. Confidential information provided to the technical expert group shall not be released without formal authorization from the government, organization or person providing the information. Where such information is requested from the technical expert group but release of such information by the technical expert group is not authorized, a non-confidential summary of the information will be provided by the government, organization or person supplying the information.
6. The technical expert group shall submit a draft report to the Members concerned with a view to obtaining their comments, and taking them into account, as appropriate, in the final report, which shall also be circulated to the Members concerned when it is submitted to the panel.

ANNEX 3

CODE OF GOOD PRACTICE FOR THE PREPARATION, ADOPTION AND APPLICATION OF STANDARDS

General Provisions

- A. For the purposes of this Code the definitions in Annex 1 of this Agreement shall apply.
- B. This Code is open to acceptance by any standardizing body within the territory of a Member of the WTO, whether a central government body, a local government body, or a non-governmental body, to any governmental regional standardizing body one or more members of which are Member of the WTO; and to any non-governmental regional standardizing body one or more members of which are situated within the territory of a Member of the WTO (hereafter collectively called "standardizing bodies" and individually "the standardizing body").
- C. Standardizing bodies that have accepted or withdrawn from this Code shall notify this fact to the ISO/IEC Information Centre in Geneva. The notification shall include the name and address of the body concerned and the scope of its current and expected standardization activities. The notification may be sent either directly to the ISO/IEC Information Centre, or through the national member body of ISO/IEC or, preferably, through the relevant national member or international affiliate of ISONET, as appropriate.

SUBSTANTIVE PROVISIONS

- D. In respect of standards, the standardizing body shall accord treatment to products originating in the territory of any other Member of the WTO no less favourable than that accorded to like products of national origin and to like products originating in any other country.
- E. The standardizing body shall ensure that standards are not prepared, adopted or applied with a view to, or with the effect of, creating unnecessary obstacles to international trade.
- F. Where international standards exist or their completion is imminent, the standardizing body shall use them, or the relevant parts of them, as a basis for the standards it develops, except where such international standards or relevant parts would be ineffective or inappropriate, for instance, because of an insufficient level of protection or fundamental climatic or geographical factors or fundamental technological problems.
- G. With a view to harmonizing standards on as wide a basis as possible, the standardizing body shall, in an appropriate way, play a full part within the limits of its resources in the preparation by relevant international standardizing bodies of international standards regarding subject matter for which it either has adopted, or expects to adopt, standards. For standardizing bodies within the territory of a Member, participation in a particular international standardization activity shall, whenever possible, take place through one delegation representing all standardizing bodies in the territory that have adopted, or expect to adopt, standards for the subject matter to which the international standardization activity relates.
- H. The standardizing body within the territory of a Member shall make every effort to avoid duplication of, or overlap with, the work of other standardizing bodies in the national territory or with the work of relevant international or regional standardizing bodies. They shall also make every effort to achieve a national consensus on the standards they develop. Likewise the regional standardizing body shall make every effort to avoid duplication of, or overlap with, the work of relevant international standardizing bodies.
- I. Wherever appropriate, the standardizing body shall specify standards based on product requirements in terms of performance rather than design or descriptive characteristics.
- J. At least once every six months, the standardizing body shall publish a work programme containing its name and address, the standards it is currently preparing and the standards which it has adopted in the preceding period. A standard is under preparation from the moment a decision has been taken to develop a standard until that standard has been adopted. The titles of specific draft standards shall, upon request, be provided in English, French or Spanish. A notice of the existence of the work programme shall be published in a national or, as the case may be, regional publication of standardization activities.
- The work programme shall for each standard indicate, in accordance with any ISONET rules, the classification relevant to the subject matter, the stage attained in the standard's development, and the references of any international standards taken as a basis. No later than at the time of publication of its work programme, the standardizing body shall notify the existence thereof to the ISO/IEC Information Centre in Geneva.
- The notification shall contain the name and address of the standardizing body, the name and issue of the publication in which the work programme is published, the period to which the work programme applies, its price (if any), and how and where it can be obtained. The notification may be sent directly to the ISO/IEC Information Centre, or, preferably, through the relevant national member or international affiliate of ISONET, as appropriate.
- K. The national member of ISO/IEC shall make every effort to become a member of ISONET or to appoint another body to become a member as well as to acquire the most advanced membership type possible for the ISONET member. Other

APPENDIX I

*Background Information on the European
Committee on Standardization (CEN)*

APPENDIX I

BACKGROUND INFORMATION ON THE EUROPEAN COMMITTEE ON STANDARDIZATION (CEN)

European National Standards Organizations

As described in the earlier study in this area [Nathan Assoc./USAID Jan. 1994] the national standards setting organizations of Europe can trace their origins to the late 19th century, when the needs of industry, science, and engineering converged as the "Industrial Revolution" intensified and deepened.

It was with this private partnership of professional bodies that the European nation-states needed to contend when the exigencies of the First World War and its aftermath pointed toward "national" empowerment of these bodies either by legislation, contract or treaty. However, to this day Europe's main standards organizations protect their professional independence from direct state interference and the fundamental private partnership between industry, science and engineering remains intact.

Each of the organizations listed below are the national members of the Committee for European Standardization [CEN], and are also the national representative organizations to the International Standards Organization [ISO].

As is readily seen the three largest economies of Europe - Britain, France and Germany - also have the largest standards organizations in term of staff and budget. It is also not a coincidence that these countries were the cradles of the Industrial Revolution and, apart from the United States and Japan, house the greatest concentration of scientific and engineering capabilities in the world.

However, the services provided directly, in addition to standard setting, vary greatly in all 18 organizations as is reflected by both staff size and budget. Services can include:

- management of conformity and quality marks.
- accreditation of companies quality assurance programs [ISO 9000, etc.]
- consultancy to companies.
- publication of newsletters and periodicals
- organizations of seminars and training events.

The only organization which undertakes all of the above activities is the British Standards Institute [BSI], which has also established an extensive laboratory network that accounts for the high staff numbers. All organizations are either private or non-governmental [except Portugal] and have been recognized by their respective states' as the national representative body in matter of standards.

<u>COUNTRY</u>	<u>ORGANIZATION</u> [abbrev.]	<u>STAFF</u>	<u>NO.</u> <u>STANDARDS</u>	<u>BUDGET</u>	
				<u>\$USD</u> <u>millio</u> <u>n</u>	<u>%</u> <u>State</u>
Austria	ON	108	6115	11.2	25.0
Belgium	BIN	47	6300	5.0	35.0
Denmark	DS	150	4915	20.0	17.0
Finland	SFS	70	5886	8.75	25.0
France	AFNOR	630	18234	77.5	25.0
Germany	DIN	815	22554	57.5	16.0
Greece	ELOT	75	2950	n/a	80.0
Iceland	STRI	9	3697	6.25	80.0
Ireland	NSAI	107	3006	8.75	3.5
Italy	UNI	104	8568	11.25	35.0
Luxembourg	ITM	38	n/a	3.75	100.0
Netherlands	NNI	208	7286	20.0	3.0
Norway	NSF	35	4101	5.0	21.0
Portugal	IPQ	207	5044	12.5	50.0
Spain	AENOR	156	9966	12.5	15.6
Sweden	SIS	53	8552	15.0	30.0
Switzerland	SNV	35	6000	77.0	28.0
UK	BSI	1850	13500	127.5	5.0

Source: CEN 1995

Standardization Bodies of Europe

While in the past the Egyptian business community would have focused on the national institutions listed above [especially BSI, DIN, and AFNOR] in its standardization activities for both import and export trade to Europe, this is now changing rapidly.

There are currently four European institutions involved in standards setting or testing and certification:

1. CENELEC European Committee for Electrical Standardization
2. ESTI European Telecommunications Standards Institute
3. EOTC European Organization for Testing and Certification
4. CEN Committee for European Standardization

For the purposes of this study, CEN is of particular relevance and is the subject of the following sections of this report. However, a brief description of Cenelec, ESTI and the emerging EOTC may be useful toward understanding the dynamics of the drive toward unification of the European market.

CENELEC

Cenelec which deals with matters electrical, has representative national organizations from all 18 countries listed above which form the core of the European market. In a number of cases the member organizations of CEN and Cenelec are identical though in a few European countries the history of electrification has given rise to technical institutions which are separate from the CEN bodies. However in all cases [except Italy] the status of national standards in the electrotechnical field is ultimately conferred by the CEN member organization.

As the process for standard setting by Cenelec is identical to that of CEN which also uses shared administrative services, no further description is required. However it should be borne in mind that Cenelec is very closely linked with the International Electrotechnical Commission [IEC] and has adopted 90% of all European harmonized standards directly from the IEC.

ESTI

The European Telecommunications Standards Institute [ESTI] is a relatively young body founded in 1988 at the initiative of the European Commission to forged a common effort to speed technical harmonization in field of telecommunication and increasingly in its links with information technology eg. "teleservices" [see the attached organizational chart].

As this is an area of breath taking technological change and the ensuing restructuring [eg..privatization] of the telecommunications industry globally; it would not be useful for the purposes of this study to explore in depth the activities of ESTI

Suffice to note that the ESTI has become an important open association and forum in which public and increasing private providers of public telecommunications networks, together with members who are equipment manufacturers and members from the scientific research community, try to ensure networking compatibility in the area of telecommunications and teleservices.

EOTC

The European Organization for Testing and Certification was established in mid-1990 to fostered mutual acceptance within Europe of the criteria for conformity assessment to both voluntary product standards and the regulated domain as defined by harmonized directives of the European Council.

The primary tool to push toward a common criteria for conformity assessment and accreditation of those notified inspection and certification bodies as well as testing laboratories is the EN 45000 series of general European standards.

As this area is both technically, administratively, and legally very complex it is beyond the scope of this study to attempt to describe the current European evolution of either theory or practice in conformity assessment. What is important to recognize is that a forum has been established within

which the relevant technical bodies of both the public domain and the private sector can negotiate and set agreements to assess conformance to European standards.

However, while the criteria for conformity assessment has been established through the EN 45000 series, much further work is needed before mutual recognition becomes a reality in supplanting national testing systems and supporting a European-wide quality mark. This is particularly the case regarding the conformance to non-regulated standards where national quality marks can be highly prized; while assessment of conformance to harmonized directives may be less contentious.

The relevance of these institutions to the Egyptian policy makers and particularly to the Egyptian business community is that the dynamics speeding the harmonization of standards within the wider European market are being registered in nearly all spheres of industry and business.

It may again be worth raising the issue of choice facing Egyptian policy makers:

- proceed with measures to promote integration with the market of the Euro - Mediterranean sub-continent
- defend a degree of autonomy within the region and in Egypt's economic relations with the European Union.

In the area of harmonization of standards and recognition of conformity the reality of the choice facing Egyptian policy makers is not nearly as stark as the above assertions imply. With Egypt's membership and participation in organizations such as the ISO a clear conduit has been established to give substance to the aspirations envisaged under the EMA in the area of standards.

Vienna Agreement

To strengthen the relationship between the International Standards Organization [ISO] and CEN a technical cooperation agreement was concluded between the two organizations in mid-1992.

The successful operation of this agreement is important in dispelling the lingering belief that a "fortress Europe" strategy exist; and in ensuring that European standardization activity does not evolve into a method to construct non-tariff trade barriers.

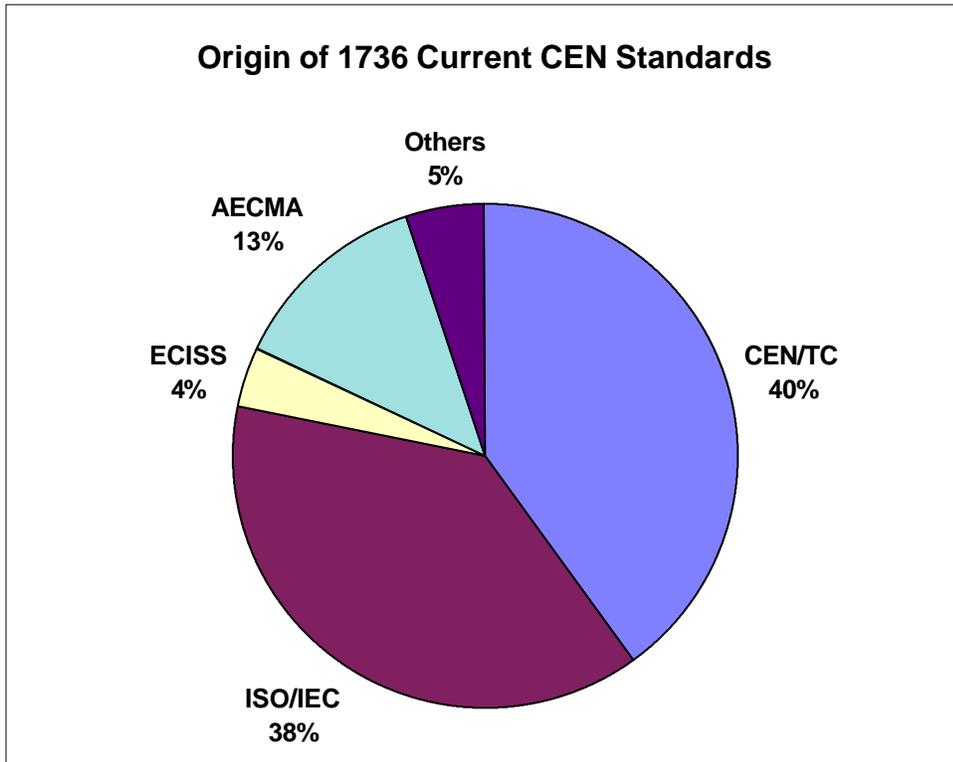
For the Egyptian business community the successful operation and participation through the Egyptian Organization for Standards [EOS] in the implementation of this agreement as well as a rigorous embracing of the EMA, is of crucial immediate and long term importance to ensure integration in the wider European market.

The key points of the Vienna Agreement include:

- a full exchange of information including technical work programs, proposals for new studies, soliciting comment on texts of draft standards etc..

- cooperation in drafting standards either by comment or defined participation in technical committees.
- the transference of work items for the drafting of standards from CEN to ISO in a defined and proscribed manner to avoid duplication of effort.
- the full adoption of existing ISO standards by the CEN such as that recently undertaken regarding the ISO 9000 series.
- parallel approval of draft standards originating from either ISO or CEN technical committees.

As can be seen from the chart below nearly 40% of all European/CEN standards are identical to those of the ISO. Furthermore it would be a mistake to assume that the remaining 60% of current CEN standards are necessarily in conflict with those of the ISO as that would not be in either the intention or design of the Vienna Agreement.



Source: CEN 1995

This type of cooperation which is mirrored in the electrotechnical field by the "Lugano Agreement" between Cenelec and the IEC demonstrates that Egypt is neither isolated nor excluded from participation in standard setting at either the international or wider European market.

However, as described in earlier sections of this report neither the current structures nor implementation methods within the Egyptian "Quality Control" system allows any meaningful

scope for participation at either the international or European level by the business community in partnership with the public and scientific sectors.

The following section of this report will describe the approach undertaken in Europe to promote access to the European market through standardization and the emerging structures. Fundamental to the successful operations of CEN are the methods employed to strengthen the partnership of the private, public and scientific sector to advance economic growth and wealth generation.

European Standardization - CEN

As described in the previous section of this report, the core membership of the Committee for European Standardization [CEN] consists of the 15 member countries of the European Union plus Switzerland, Norway and Iceland. In addition CEN also has 11 affiliate member states [13 now, with the expected admission of Latvia and Croatia]:

Bulgaria	Poland
Cyprus	Romania
Czech Republic	Slovakia
Estonia	Slovenia
Hungary	Turkey
Lithuania	

The key difference between a core member and a CEN Affiliate is that once a European standard has been adopted core members *must implement* it by giving the standard national status either by endorsement or identical publication and withdrawal of any conflicting national standards.

Affiliate members are also expected to implement ratified European standards but retain an "*opt out*" right if this proves impossible; though notification to CEN's Secretariat is required. Naturally continued use of the "opt out" clause would bring into question an affiliate member's status within the organization.

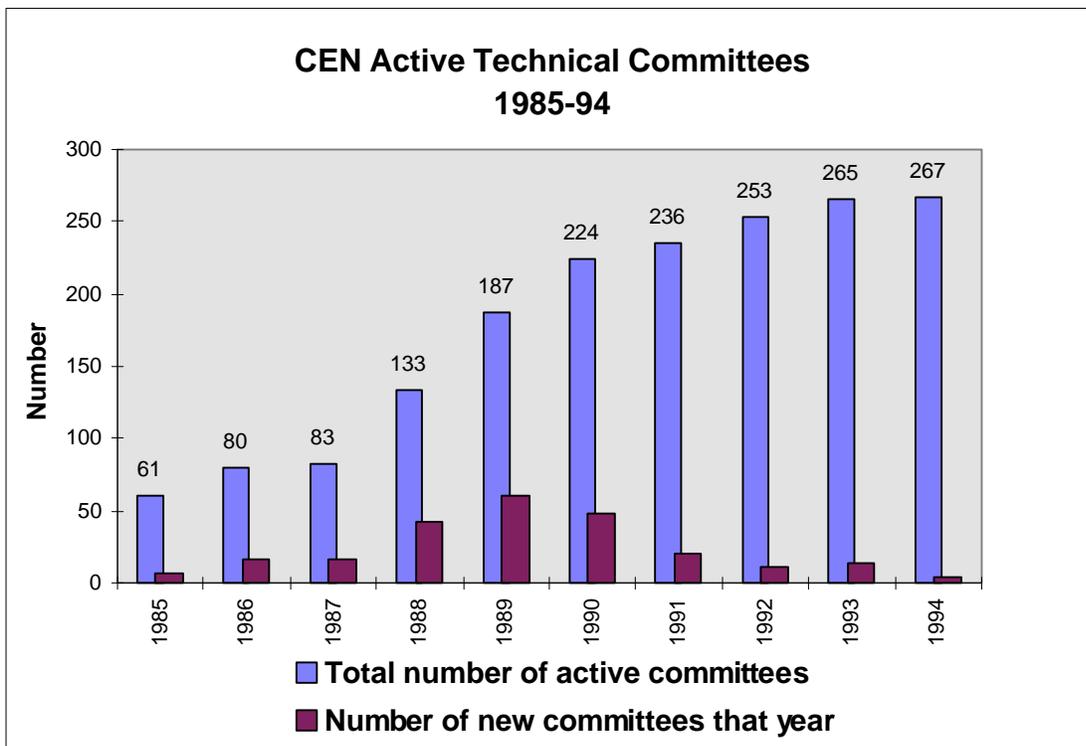
To bring the structure of CEN into clear focus a diagram of the CEN structure is provided at the end of this Appendix. As can be seen above, in addition to core national members and affiliate members CEN has also established an "*Associate Member*" status which strengthens linkages to the private sector and industrial partners. Presently four European-wide associations have this status giving national and individual association members priority in consultation and participation on various technical committees:

1. ECMA - European Computer Manufacturers Association
2. FIEC - European Construction Industry Federation
3. TUTB - European Trade Union Technical Bureau for Health and Safety
4. CEFIC - European Chemical Industry Council [applied]

Lastly, to harness the power and technical expertise of the private sector CEN has established what is called "Associated Bodies" [ASBs] which independently enter into contract with CEN to prepare draft standards according to CEN guidelines. ASBs include:

1. AECMA - European Association of Aerospace Manufactures
2. ECISS - European Committee for Iron and Steel Standardization
3. EWOS - European Workshop for Open Systems
4. Western European EDIFACT Board [bar coding; cam/cad; amt; etc..]

The establishment of ASBs has not only further strengthen links to the private sector but is a response to the demand of private business for European-wide standards to facilitate trade in the expanding European market. However the technical competency of the private sector is not only harnessed through the use of ASBs, but through participation in the technical committees of CEN. In fact over 230 professional and trade associations have been granted "liaison status" with the technical committees as pictured below.



When one looks above at the growth of CEN technical committees over the last number of years it becomes abundantly clear that the dynamics of integration in the European market is reflected not only in the number of technical committees but in the knowledge that the business community provides the technical resources freely which makes participation and success of the system possible.

CEN Technical Structures

Of fundamental relevance to Egyptian policy makers and the business community in this short review of the European organizations involved in the standardization process, is the recognition that Egyptian firms' access to the European market will be facilitated by:

- participation in the process through active membership in ISO and seeking "observer" status in CEN through use of the EMA.
- partnership between the Egyptian business community and the public and scientific sectors concerned with standardization.

The realignment of the authority centers involved in the current QC system in Egypt and in particular the revamping of the role, status, and mission of the Egyptian Organization for Standardization [EOS] is crucial in this regard. Therefore, it may be useful to view the core technical structures of the CEN organization to see if a similar system could function in the Egyptian setting. As can be seen from the structure of the Technical Board provided at the end of this Appendix, the engine room of standard setting in Europe lies in the interaction between sector specific technical programming committees [CEN/PCs] which manage the work programs of the individual technical committees.

These technical committees work through technical sector boards [CEN/BTSs] to the **Technical Board** for onward consideration and adoption by weighted vote of the 18 national core members. Neither national affiliates nor associated members have a vote on the adoption of a draft European standard but their comments and considerations are solicited.

This technical committee system is not unique to CEN and mirrors the process which has been established at the ISO. What is of particular importance to this study of the QC system in Egypt is the fact that standards setting and implementation in Europe is a *non-Government affair* within which the private sector business community is the dominant participant. This is directly opposite to how the system operates in Egypt as described in earlier sections of this report.

Standards Preparation

With respect to one of the core findings of this study that the current QC system in Egypt "lacks transparency and due process," it is again important to contrast this state of affairs toward that which exist in Europe through CEN and its interaction with the European business community; and internationally through its liaison with the ISO. There a related Flow Chart at the end of this Appendix. What is important to note is that transparency and due process does not *begin* with the formal procedures prescribed before a draft document is accepted as a European standard. It lies in the fact that this system can only be successful if openness and transparency are present throughout the process which is a cornerstone of liberal democracies and open market economies.

The "New Approach"

To facilitate the free movement of goods within the European market the EU Council decided as early as 1985 to move away from the concept of detailing required technical specifications for products to meet mandatory requirements.

In what has become known as the "new approach" to harmonized directives [mandatory] on health and safety issues required for the free movement products the following applies:

- harmonized directives are limited to defining the "essential requirements" which a product must conform to move freely on the European market.
- that the tasks for developing harmonized standards to meet these essential requirements is entrusted to the recognized competent organizations of CEN, Cenelec, and ETSI.
- these standards remain voluntary and the producer is free to design and manufacture products by other methods as long as the essential requirements are conformed to.
- national authorities of the CEN member states are obliged to recognized products manufactured to harmonized standards as meeting the mandatory directives.

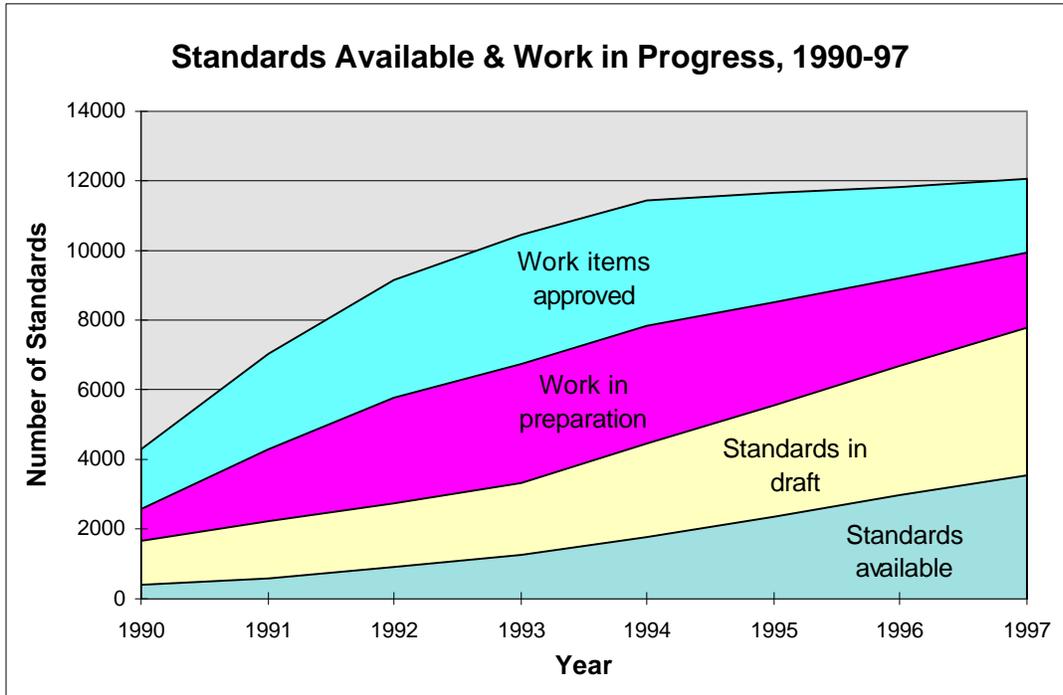
Currently there are approximately twenty product related "new approach" directives approved or in advanced preparation which impact the work of standard setting at the European level:

simple pressure vessels	safety of toys	construction products
electromagnetics	machinery safety	personal protection equipment
non-automatic weighing equipment	medical devices	implantable medical devices
gas appliances	gas/liquid fired boilers	civilian explosives
telecommunication terminal equipment	recreational craft	explosive atmospheres
packaging	pressure equipment	elevators
high speed trains	pressure equipment	in vitro diagnostic equipment

There are other EU directives covering such areas as the environment, public procurement, certain food safety issues etc.. which can also impact the momentum of standard setting in the European market.

The momentum however comes largely from private sector manufacturers and their trade associations which see the development of harmonized standards as useful guidelines to both conform to health and safety directives and to expand their business opportunities in a harmonized and integrated European market.

This drive for integration is best illustrated in the following chart which outlines the work program of the three European wide standardization organizations.



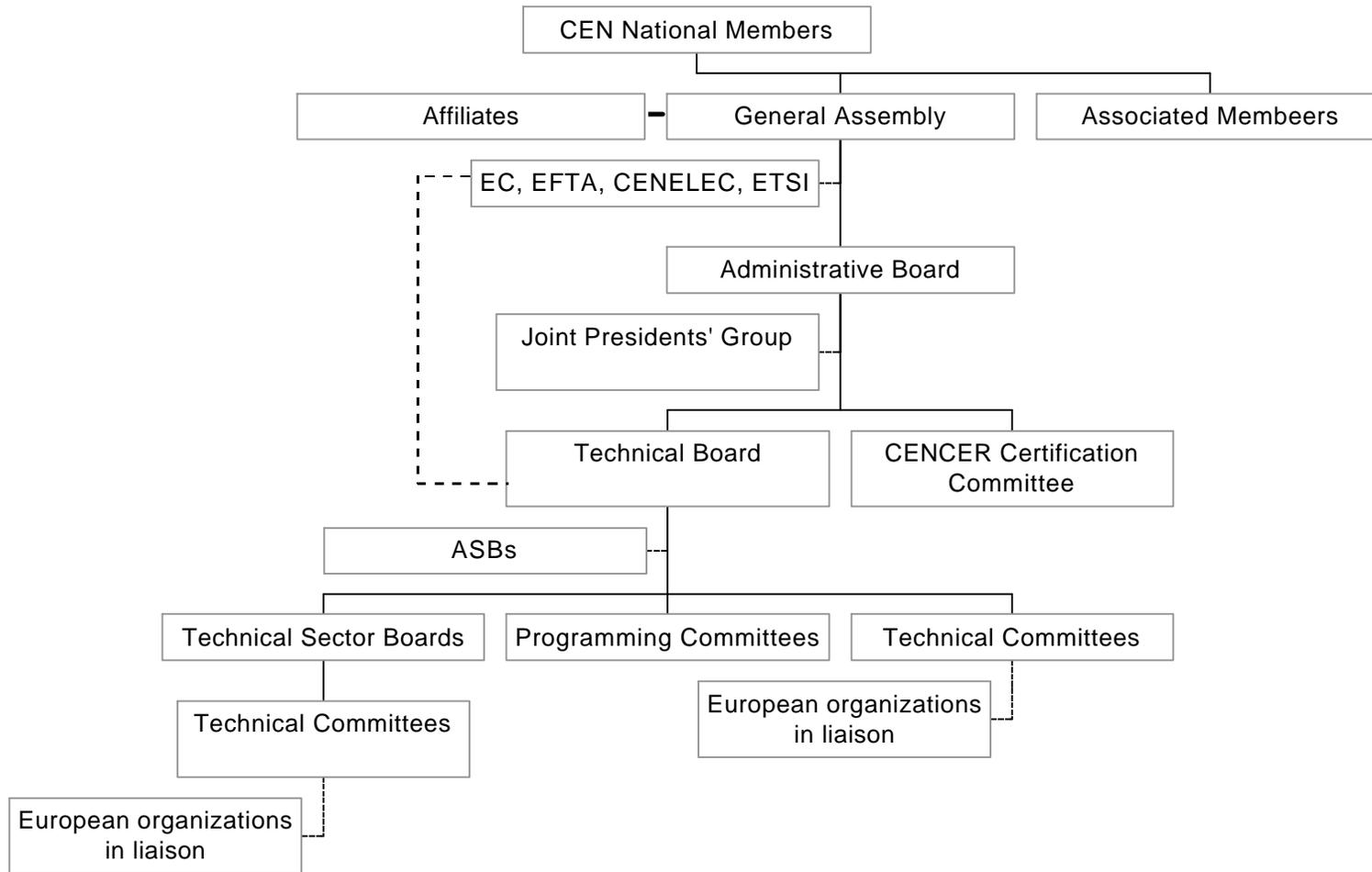
Source: CEN 1995

What is important to take from the illustration above is the fact that the transformation of most of the current 130,000 individual national European standards into the planned 12,000+ Europe-wide voluntary standards underpins the business reality of the drive toward economic and monetary union.

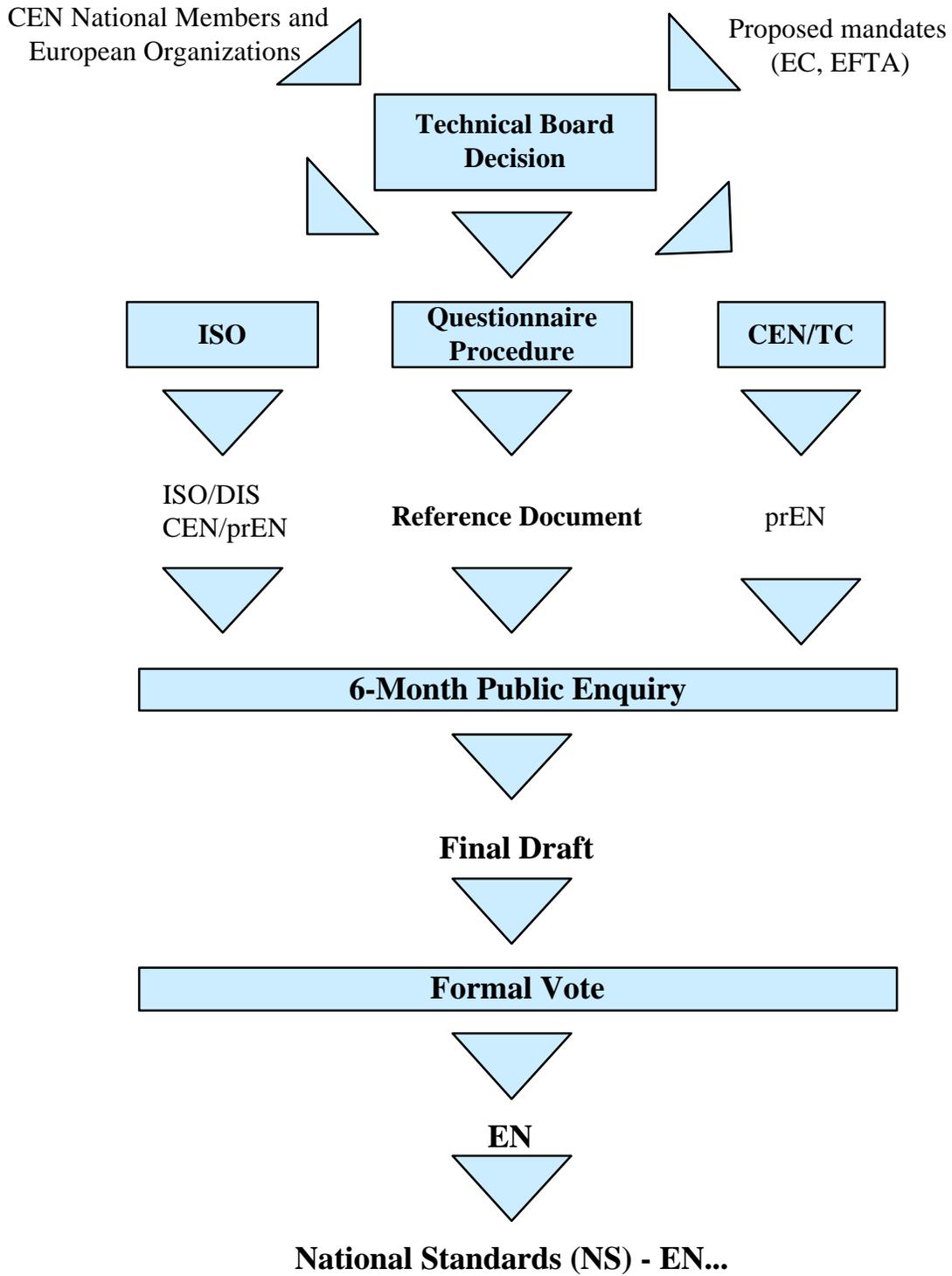
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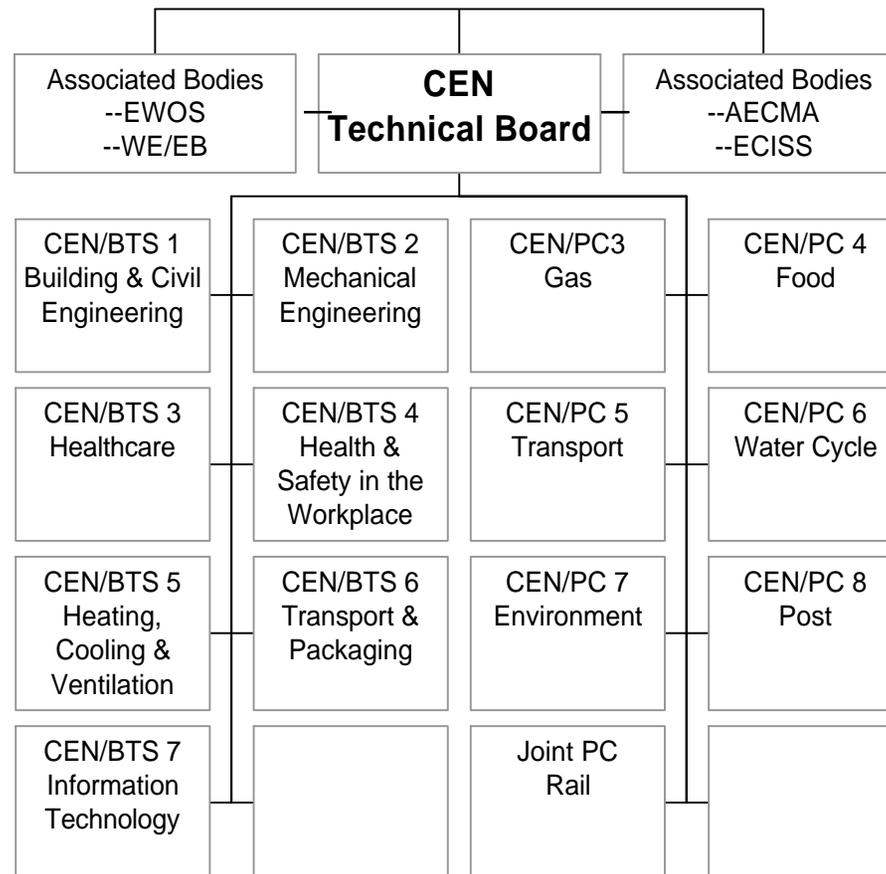
The Structure of CEN



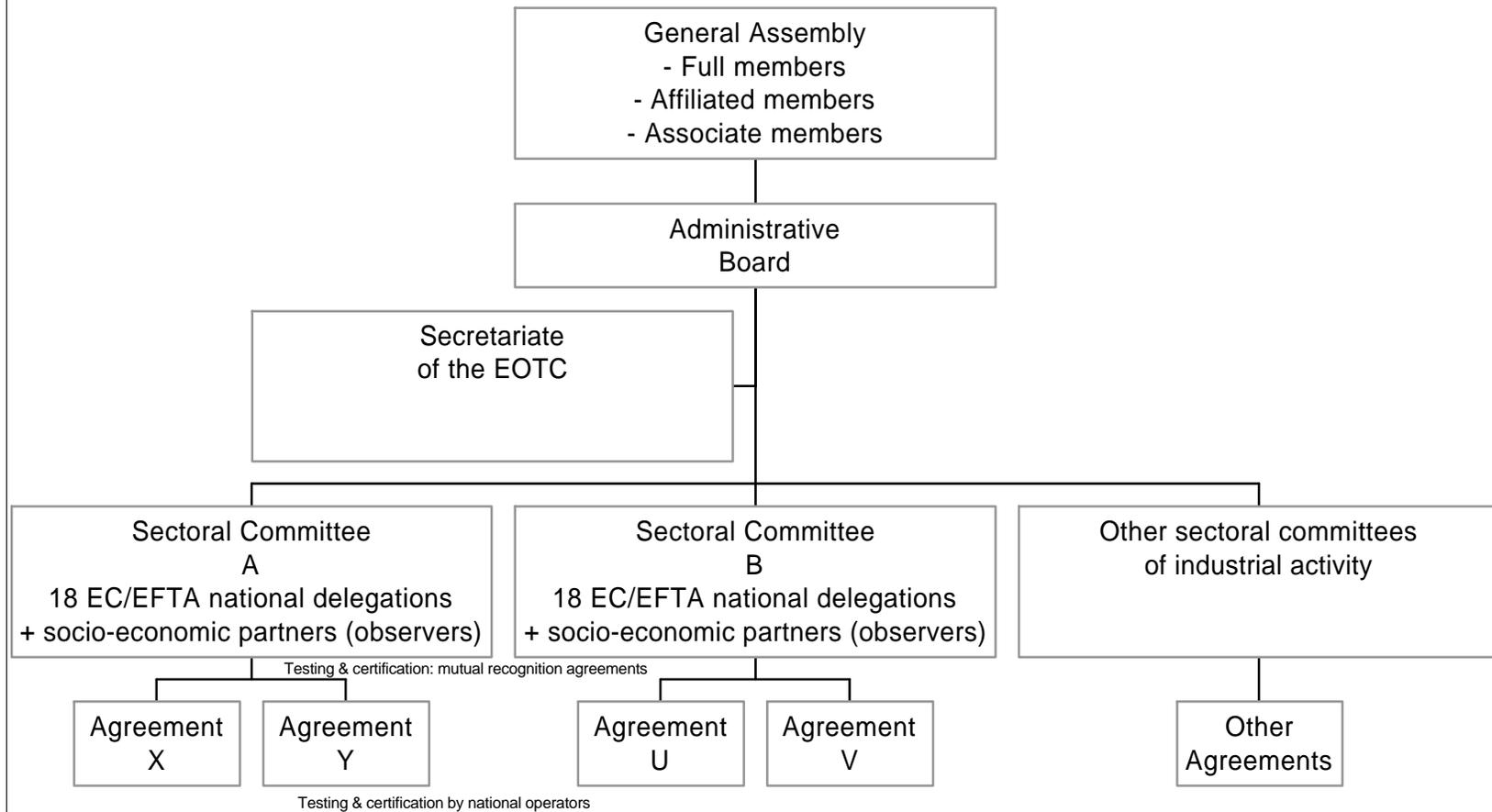
How Standards are Prepared



CEN Sectoral Organization



Structure of EOTC



APPENDIX J

*Codex Alimentarius Committee on Food
Import and Export Inspection and
Certification Systems Proposed Draft
Guidelines for the Design, Operation,
Assessment and Accreditation of Food
Import and Export Inspection and
Certification Systems*

codex alimentarius commission

FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD HEALTH
ORGANIZATION

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ALINORM 97/30

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
Twenty-second Session
Geneva, 23 - 28 June 1997

REPORT OF THE FOURTH SESSION OF THE
CODEX COMMITTEE ON FOOD IMPORT AND EXPORT INSPECTION AND
CERTIFICATION SYSTEMS
Sydney, Australia, 19-23 February 1996

NOTE: This report includes Codex Circular Letter CL 1996/6 - FICS

**PROPOSED DRAFT GUIDELINES FOR THE DESIGN, OPERATION, ASSESSMENT AND
ACCREDITATION OF FOOD IMPORT AND EXPORT INSPECTION AND
CERTIFICATION SYSTEMS**

(Advanced to Step 5 of the Procedure)

SECTION I - SCOPE OBJECTIVES

1. These guidelines provide a framework for the development of import and export inspection and certification systems consistent with the *Principles for Food Import and Export Inspection and Certification* (CAC/GL 20-1995).
2. These guidelines are intended to assist countries in the application of requirements for trade in foodstuffs and in determining equivalency in order to protect consumers and facilitate fair trade.
3. The document deals with the recognition of equivalence of inspection and/or certification systems and not with standards related to specific food products or their components (e.g., food hygiene, additives and contaminants, labelling and quality requirements).
4. Application of the guidelines presented in this document should help build and maintain the necessary confidence in the inspection and certification system of an exporting country to facilitate trade.

SECTION 2 - DEFINITIONS

Audit is a systematic and functionally independent examination to determine whether activities and related results comply with planned objectives.¹

Certification is the procedure by which official certification bodies and officially recognized bodies provide written or equivalent assurance that foods or food control systems conform to requirements. Certification of food may be, as appropriate, based on a range of inspection activities which may include continuous on-line inspection, auditing of quality assurance systems, and examination of finished products.¹

Equivalence is the capability of different inspection and certification systems to meet the same objectives.

Inspection is the examination of food or systems for control of food, raw materials, processing and distribution, including in-process and finished product testing, in order to verify that they conform to requirements.¹

Official accreditation is the procedure by which a government agency having jurisdiction formally recognizes the competence of an inspection and/or certification body to provide inspection and certification services.

¹ (CAC/GL 20-1995).

Official inspection systems and official certification systems are systems administered by a government agency having jurisdiction empowered to perform a regulatory or enforcement function or both.¹

Officially recognized inspection systems and officially recognized certification systems are systems which have been formally approved or recognized by a government agency having jurisdiction.¹

Requirements are the criteria set down by the competent authorities relating to trade in foodstuffs covering the protection of public health, the protection of consumers and conditions of fair trading.¹

Risk Assessment is the evaluation of the likelihood and severity of adverse effects on public health arising, for example, from the presence in foodstuffs of additives, contaminants, residues, toxins or disease-causing organisms.²

SECTION 3 - RISK ANALYSIS

5. The use of scientifically based risk analysis including risk assessment will increase confidence in food safety and will facilitate international trade by increasing confidence in the inspection results of trading partners.

6. Risk analysis should be applied to all segments of the food production and distribution chain, including agricultural inputs and pre-harvest procedures, to enable inspection resources to be targeted effectively on hazards to public health.

7. The principles of Hazard Analysis Critical Control Point (HACCP) developed by the Codex Committee on Food Hygiene³ provide a systematic basis for the identification and control of hazards so as to ensure the safety of food. The use of a HACCP approach by food businesses should be recognised by governments as a fundamental tool for improving the safety of foodstuffs.

SECTION 4 - QUALITY ASSURANCE

8. The voluntary utilisation of quality assurance by food businesses should also be encouraged in order to achieve greater confidence in the quality of products obtained. If safety and/or quality assurance tools are used by food businesses, the official inspection and certification systems should take them into account in particular through the adaptation of their control methodologies.

9. Governments do, however, retain the fundamental responsibility to ensure by official inspection and certification the conformity of foodstuffs to requirements.

10. The degree to which industry utilizes quality assurance procedures can influence the methods and procedures by which government services verify that requirements have been met, where official authorities consider such procedures to be relevant to their requirements.

SECTION 5 - EQUIVALENCE

11. The recognition of equivalence of inspection and certification should be facilitated where it can be objectively demonstrated that there is an appropriate system for inspection and certification of food by the exporting country in accordance with these guidelines.

² Consistent with the Principles for Food Import and Export Inspection and Certification (CAC/GL 20-1995) but subject to consideration by the Commission.

³ Guidelines for the Application of the Hazard Analysis Critical Control Point (HACCP) System; CAC/GL 18-

12. For the determination of equivalence, governments should recognise that:

- inspection and certification systems should be organized for the risk involved, considering that the same food commodities produced in different countries may present different hazards; and,
- control methodologies can be different but achieve equivalent results. For example, environmental sampling and the strict application of good agricultural practices, with limited end product testing for verification purposes, may produce a result equivalent to extensive end product testing for the control of agriculture chemical residues in raw products.

13. Controls on imported food and domestically produced foods should be designed to achieve the same level of protection. The importing country should avoid the unnecessary repetition of controls where these can be considered to have been already validly carried out by the exporting country. In these cases a level of control equivalent to domestic controls should have been achieved at the stages prior to import.

14. The exporting country should provide access to enable the inspection and certification systems to be examined and evaluated, on request of the food control authorities of the importing country. Evaluations of inspection and certification systems carried out by the authorities of an importing country should take into account other relevant inspections already validly carried out by self-evaluation or by competent third-party evaluations in the exporting country.

15. Evaluations of inspection and certification carried out by an importing country for purposes of establishing equivalence should take account of all relevant information held by the competent authority of the exporting country.

Equivalency Agreements

16. The application of equivalence principles may be in the form of agreements or letters of understanding established between governments either for inspection and/or certification of production areas, sectors or parts of sectors. Equivalence may also be established through the administration of a comprehensive agreement which would cover inspection and certification of all food commodity forms traded between two or more countries.

17. Agreements on the recognition of equivalence of inspection and certification systems may include provisions concerning:

- the legislative framework, control programs and administrative procedures;
- contact points in inspection and certification services;
- demonstration by the exporting country of the effectiveness and adequacy of its enforcement and control programmes, including laboratories;
- where relevant, lists of products or establishments subject to certification or approval, accredited facilities and accredited bodies;
- mechanisms supporting continued recognition of equivalence, eg., exchange of information on hazards and monitoring and surveillance.

18. Agreements should include mechanisms to provide for periodic review and updating and include procedural mechanisms for resolving differences arising within the framework of the agreement.

SECTION 6 - INSPECTION AND CERTIFICATION SYSTEM INFRASTRUCTURE

19. Countries should identify the main objectives to be addressed through import and export inspection and certification systems.

20. Countries should have in place the legislative framework, controls, procedures, facilities, equipment, laboratories, transportation, communications, personnel and training to support the objectives of the inspection and certification programme.

21. Where different authorities in the same country have jurisdiction over different parts of the food chain, conflicting requirements must be avoided to prevent legal and commercial problems and obstacles to trade. For example, while provincial or state laws may exist there should be a competent authority at the national level capable of ensuring uniform application. However, an importing country authority may recognise a sub-national competent authority for purposes of inspection or certification where this arrangement is acceptable to the national authorities concerned.

Legislative Framework

22. For the purposes of this section, *legislation* includes acts, regulations, requirements or procedures, issued by public authorities, related to foodstuffs and covering the protection of public health, the protection of consumers and conditions of fair trading.

23. The effectiveness of controls related to foodstuffs depends on the quality and completeness of legislation for foods. Legislation should provide authority to carry out controls at all stages of production, manufacture, importation, processing, storage, transportation, distribution and trade.

24. Legislation may also include provisions as appropriate for the registration of establishments or listing of certified processing plants, establishment approval, licensing or registration of traders, equipment design approval, coding requirements and charging of fees.

25. The national competent authority in the exporting or importing country should have the ability to enforce and take action based on adequate legislation. It should take all necessary steps to insure the integrity, impartiality and independence of official inspection systems and officially recognized inspection systems and to ensure that the inspection programme contained in national legislation is delivered to a prescribed standard. Inspectors must be capable, appropriately trained and must be able to take the necessary measures in cases of non-conformity, to prevent recurrence and to protect public health.

Control programmes and operations

26. Control programmes help to ensure that inspection actions relate to objectives, since the results of these programmes can be assessed against the objectives set for the inspection and certification system. Inspection services should draw up control programmes based on precise objectives and appropriate risk analysis. In the absence of detailed scientific research, control programmes should be based on requirements developed from current knowledge and practice. Every effort should be made to apply risk analysis based on internationally-accepted methodology.

27. In particular, countries should require or encourage the use of a HACCP approach by food establishments and, for this reason, should provide training on HACCP for official inspectors. Where programmes include the taking and analysis of samples, adequate sampling and appropriately validated analytical methods should be established to ensure that the results are representative and reliable in relation to the specific objectives.

28. The elements of a control program should include, as appropriate :

- inspection;
- sampling and analysis;
- checks on hygiene, including personal cleanliness and clothing;
- examination of written and other records;
- examination of the results of any verification systems operated by the establishment;
- audit of establishments by the national competent authority;
- national audit and verification of the control programme.

29. Administrative procedures should be in place to ensure that controls by the inspection system are carried out:

- regularly in proportion to risk;
- where non-compliance is suspected;
- in a co-ordinated manner between different authorities, if several exist.

30. Controls should cover, as appropriate:

- establishments, installations, means of transport, equipment and material;
- raw materials, ingredients, technological aids and other products used for the preparation and production of foodstuffs;
- semi-finished and finished products;
- materials and objects intended to come into contact with foodstuffs;
- cleaning and maintenance products and processes, and pesticides;
- processes used for the manufacture or processing of foodstuffs;
- the application and integrity of health, grading and certification marks;
- preserving methods;
- labelling integrity and claims.

31. The elements of the control programme should be formally documented including methods and techniques.

Decision criteria and action

32. The controls program should be targeted at the most appropriate stages and operations, depending on the specific objectives. Control procedures should not compromise the quality or safety of foods, particularly in the case of perishable products.

33. The frequency and intensity of controls by inspection systems should be designed so as to take account of risk and the reliability of controls already carried out by those handling the products including producers, manufacturers, importers, exporters, and distributors. An exporting country may take into account risk and the controls implemented by a producer when identifying the appropriate level of inspection for export.

34. Countries should avoid systematic physical checks on imports except in justified cases such as products associated with a high level of risk; a suspicion of non-conformity for a particular product; or a history of non-conformity for the product, processor, importer or country.

35. When physical checks are to be undertaken, sampling plans for imported products should take into account the level of risk, the presentation and type of commodity to be sampled, the reliability of controls of the exporting country and of those responsible for handling the product in the importing country.

36. Where an imported product is found not to be in conformity, the resulting measures should take into account the following criteria to ensure that any action is proportionate to the degree of public health risk, potential fraud or deception. Additionally, the following matters should be taken into consideration:

- repeated non-conformity in the same product or in the same category of products;
- history of non-conformity of those responsible for handling the products;
- reliability of checks made by the country of origin.

37. Where an imported product is found not to be in conformity, the resulting measures should be applied according to the criteria stated in paragraph 37 above. Such measures may be cumulative if necessary.

In respect of the product not in conformity measures may include:

- requirement for the importer to restore conformity (e.g. where problems relate to labelling for consumer information and have no effect on inspection or health);
- rejection of consignments or lots, in whole or in part;
- in the case of potentially serious health risk, destruction of the product;

In respect of future imports measures may include:

- increased intensity of checks on categories of products identified as being not in conformity and/or the undertakings concerned;
- request for information and cooperation on the product or the category of products found not to be in conformity by the responsible authorities in the country of origin (increased checks at origin including controls as indicated in paragraphs 30 and 31);
- on-site visits;
- in the most serious or persistent cases, imports from establishments or countries may be suspended;
- control programmes implemented by the importer to ensure problems do not re-occur.

38. Where possible, and upon request, the importer or their representative should be given access by the relevant food control authority of the importing country, to a rejected or detained consignment and in the latter case, the opportunity to contribute any relevant information to assist the control authorities of the importing country to make their final decision.

39. Where product is rejected, information should be exchanged in accordance with the *Codex Guidelines for the Exchange of Information between Countries on Rejections of Imported Food* (ALINORM 97/30, Appendix 2).

Facilities, Equipment, Transportation and Communications

40. Inspection staff should have access to adequate facilities and equipment to undertake inspection procedures and methodologies.

41. Reliable transportation and communication systems are essential to ensure delivery of inspection and certification services when and where they are needed and for the transmission of samples to laboratories.

42. Communications facilities should be provided to ensure adequate compliance action and to address potential recalls. Consideration should be given to developing electronic information exchange systems, in particular to facilitate trade, protect consumer health, and to combat fraud.

Laboratories

43. Inspection services should utilize laboratories that are evaluated and/or accredited under officially recognized programs to ensure that adequate quality controls are in place to provide for the reliability of test results. Validated analytical methods should be used wherever available.

44. Inspection systems' laboratories should apply the principles of internationally accepted quality assurance techniques to ensure the reliability of analytical results⁴.

Personnel

45. Inspection services should have, or have access to, a sufficient number of qualified personnel as appropriate in the following areas: food science and technology, chemistry, microbiology, veterinary science, human medicine, epidemiology, audit and law.

SECTION 7 - CERTIFICATION SYSTEMS

46. An effective certification system depends on the existence of an effective inspection system as described above in Section 6.

47. Demand for certification should be justified by risk to health or risk of fraud or deception. Alternatives to certification should be considered wherever possible, in particular where the inspection system and requirements of an exporting country are assessed as being equivalent to those of the importing country. Bilateral or multilateral agreements, such as mutual recognition agreements or pre-certification agreements, may provide for dispensing with certification and/or the issuance of certificates which were previously required in certain cases.

48. Certification should provide assurance of the conformity of a product or batch of products, or that a food inspection system conforms to specified requirements, and will be based, as appropriate, on:

- regular checks by the inspection service;
- analytical results;
- evaluation of quality assurance procedures linked to compliance with specified requirements;
- any inspections specifically required for the issuance of a certificate.

⁴ The Codex Committee on Methods of Analysis and Sampling is studying a series of internationally recommended documentation on quality assurance systems for laboratories. The complete reference will be included in the final version of these guidelines.

49. Competent authorities should take all necessary steps to ensure the integrity, impartiality and independence of official certification systems and officially-recognized certification systems. They should ensure that personnel empowered to validate certificates are appropriately trained and fully aware, if necessary from notes of guidance, of the significance of the contents of each certificate which they complete.

50. Certification procedures should include procedures to ensure the authenticity and validity of certificates at all the relevant stages and to prevent fraudulent certification. In particular, personnel:

- should not certify matters without their personal knowledge or which cannot be ascertained by them;
- should not sign blank or incomplete certificates, or certificates for products which have not been produced under appropriate control programs. Where a certificate is signed on the basis of another supporting document, the person signing the certificate should be in possession of that document;
- should have no direct commercial interest in the products being certified.

SECTION 8 - COMPETENCE OF NATIONAL INSPECTION AND CERTIFICATION BODIES AND OFFICIAL ACCREDITATION⁵

51. Countries may officially accredit inspection or certification bodies to provide services on behalf of official agencies.

52. To be officially accredited, an inspection or certification body must be assessed against objective criteria and must comply at least with the standards set out in these guidelines, particularly in relation to the competence, independence and impartiality of personnel.

53. The performance of officially accredited inspection or certification bodies should be regularly assessed by the competent authority. Procedures should be initiated to correct deficiencies and, as appropriate, enable withdrawal of official accreditation.

SECTION 9 - ASSESSMENT AND VERIFICATION OF INSPECTION AND CERTIFICATION SYSTEMS

54. A national system should be subject to audit separate from routine inspection. Inspection and certification services should be encouraged to carry out self-evaluation or have their effectiveness evaluated by third parties

55. Self-assessment or third-party audits should be carried out periodically at various levels of the inspection and certification system, using internationally-recognized assessment and verification procedures. The inspection services of a country may undertake self-assessment for such purposes as assuring the adequacy of consumer protection and other matters of national interest, improving internal efficiency or facilitating exports.

56. The areas to be covered should include the entire process of the inspection and certification system as outlined in Sections 6 and 7 (above).

⁵ A list of international documentation related to objective criteria for the assessment of the competence of inspection bodies involved in the official import and export control of foods is available from the Codex Contact Point for Australia, Australian Quarantine and Inspection Service, GPO Box 858, Canberra, ACT, Australia; facsimile number 61 6 272 3103.

57. A prospective importing country may undertake a review with the approval of the exporting country of the inspection and certification systems of an exporting country as part of its risk analysis process, with a view to determining requirements for imports from that country. Periodic assessment reviews may be appropriate following the commencement of trade.

58. For the purpose of assisting an exporting country to demonstrate that its inspection or certification systems is equivalent, the importing country should make readily available adequate information on its system and its performance.

59. Exporting countries should be able to demonstrate adequate resources, functional capabilities and legislative support in addition to effective administration, independence in the exercise of their official function and, where relevant, performance history.

60. Guidelines on procedures for conducting an assessment and verification of the systems of an exporting country by an importing country are outlined in Appendix 1.

SECTION 10 - TRANSPARENCY

61. Consistent with the principles on transparency contained in the *Principles for Food Import and Export Inspection and Certification* (CAC/GL 20-1995), and in order to promote consumer confidence in the safety and quality of their food, governments should ensure that the operations of their inspection and certification systems are as transparent as possible, while respecting any legitimate constraints of professional and commercial confidentiality and avoiding the creation of new barriers to trade by giving a misleading impression of the quality or safety of imported products in comparison with domestic products.

ANNEX**GUIDELINES ON PROCEDURES FOR CONDUCTING AN ASSESSMENT AND VERIFICATION BY AN IMPORTING COUNTRY OF INSPECTION AND CERTIFICATION SYSTEMS OF AN EXPORTING COUNTRY****1. Introduction**

1.1. Assessment and verification should concentrate primarily on effectiveness of the inspection and certification system in operation in the exporting country rather than on specific commodities or establishments.

1.2. Assessment and verification may be conducted by officials of the importing country. The subject of assessment and verification may be an exporting country's inspection and certification infrastructure, or a specific inspection and certification regime applied to a single producer or group of producers.

2. Preparation

2.1 Those responsible for conducting the audit should prepare a plan that covers the following points:

- the subject, depth and scope of the audit and the standards or requirements against which the subject will be assessed;
- the date and place of the audit, along with a timetable up to and including the issue of the final report;
- the identity of the auditors including, if a team approach is used, the leader;
- the language(s) in which the audit will be conducted and the report issued;
- a schedule of meetings with officials and visits to establishments, as appropriate;
- confidentiality requirements.

2.2 This plan should be reviewed in advance with representatives of the country and, if necessary, the organization(s) being audited.

2.3 Where different authorities of an importing country have jurisdiction over different aspects of food control in the importing country, such authorities should coordinate their conduct of an audit in order to avoid any duplication of visits in the assessment of the exporting countries' inspection and certification infrastructure.

3. Opening Meeting

An opening meeting should be held with representatives of the exporting country, including officials responsible for the inspection and certification programs. At this meeting the auditor will be responsible for reviewing the audit plan and confirming that adequate resources, documentation, and any other necessary facilities are available for conducting the audit.

4. Examination

This may comprise both the examination of documentary material and an on-site verification.

4.1 Document Review

The document review may consist of a preliminary review of the national food inspection and certification system, with emphasis on the implementation of elements of the system of inspection and certification for commodity(ies) of interest. Based upon this preliminary review, the auditors may examine inspection and certification files relevant to these commodities.

4.2 On-site Verification

4.2.1. The decision to proceed to this step should not be automatic but should be based upon a variety of factors such as risk assessment of the food commodity(ies), history of conformity with requirements by the industry sector or exporting country, volume of product produced and imported or exported, changes within a country's infrastructure, changes to the food inspection and certification systems, and training (theoretical and practical) of inspectors.

4.2.2. On-site verification will involve visits to manufacturing facilities and food handling or storage areas to check on compliance with the information contained in the documentary material referred to in 4.1.

4.3 Follow-up Audit

Where a follow-up audit is being conducted in order to verify the correction of deficiencies, it may be sufficient to examine only those points which have been found to require correction.

5. Working Documents

5.1 Forms for reporting assessment findings and conclusions should be standardized as much as possible in order to make the approach to audit, reporting and assessment more uniform and efficient. The working documents also include any checklists of elements to evaluate. Such checklists may cover:

- legislation and policy;
- establishment structure and working procedures;
- the adequacy of inspection and sampling coverage and inspection standards;
- sampling plans and results;
- certification criteria;
- compliance action and procedures;
- reporting and complaint procedures;
- training of inspectors.

6. Closing Meeting

A closing meeting should be held with representatives of the exporting country, including officials responsible for the inspection and certification programs. At this meeting the auditor will be responsible for presenting the findings of the audit as well as, where appropriate, an analysis of conformity. The information should be presented in a clear, concise manner so that the conclusions of the audit are clearly understood. If possible, an action plan for correction of any deficiencies should be agreed.

7. **Report**

The draft report of the audit should be forwarded to the appropriate authorities in both countries as soon as possible. It should include a report of the audit findings with supporting evidence for each conclusion, along with any details of significance discussed during the closing meeting. The final report should incorporate the comments by the appropriate authorities of the exporting country.

8. **Frequency of auditing**

The potential importing country shall decide the frequency of auditing in agreement with the exporting country. Factors to be taken into account include the findings of previous audits and the existence and effectiveness of self-audit systems or third party audit of the exporting country's control systems.

APPENDIX K

*Codex Alimentarius and its Importance Under
the GATT; A Background Paper*

Appendix K

CODEX ALIMENTARIUS AND ITS IMPORTANCE UNDER THE GATT.

Prepared by H. Michael Wehr, Ph.D.
TAS, Inc., Washington, D.C.
for the DEPRA Project Research Study of the Quality Control System in Egypt

Codex, or more properly, Codex Alimentarius, meaning *food code*, is an international intergovernmental body that develops food safety and commodity standards that promote consumer protection and facilitate world trade. Codex is a subsidiary body of two United Nations organizations, the Food and Agriculture Organizations (FAO) and World Health Organization (WHO). Currently, 154 countries are members of Codex. Funding for Codex is from the FAO and WHO through contributions to the UN from member countries. Since its establishment in 1962, Codex has adopted over 3000 Maximum Residue Limits (MRLs) for pesticide residues, evaluated over 750 food additives and adopted over 40 hygienic and technological Codes of Practice.

The New Importance of Codex

While Codex has been recognized within the international food scientific and regulatory communities since its inception, only limited adoption of Codex standards has occurred until now. This historical situation is changing. The Sanitary and Phytosanitary (SPS) Subsidiary Agreement of the GATT specifies Codex as the reference organization for food safety. GATT requires countries, by treaty, to use Codex standards unless they can scientifically justify a higher level of protection. More specifically, the GATT SPS Subsidiary Agreement incorporates several key provisions that establish the regulatory framework for the setting of food standards.

- Regulations Based on Science: "Members shall ensure that any sanitary or phytosanitary measure...is based on scientific principles and is not maintained without sufficient scientific evidence... ."
- Use of Risk Assessment: "Members shall ensure that their sanitary and phytosanitary measures are based on an assessment... of the risk to human...health."
- Use of International Standards: "To harmonize sanitary and phytosanitary measures...members shall base their...measures on international standards, guidelines or recommendations where they exist... ." [Note: An important exception is provided where countries can scientifically justify a higher level of protection.]
- Specific Reference to Codex: "For food safety, the standards, guidelines and recommendations established by the Codex Alimentarius Commission relating to food additives, pesticide residues, veterinary drugs, contaminants, methods of analysis and sampling, and codes and guidelines of hygienic practice" are the relevant standards.
- Participation in International Organizations: "Members shall play a full part within the limit of their resources in the relevant international organizations and their subsidiary bodies, in particular the Codex Alimentarius Commission...".

Codex is also important to a second GATT subsidiary agreement, the Agreement on Technical Barriers to Trade or TBT Agreement (dealing with product specifications not related to safety including packaging, marking and labeling). The TBT Agreement requires GATT signatories to use international standards and to participate in international standards setting bodies. While Codex is not specifically referenced in the TBT Agreement, an agreement exists between the Codex Commission and the World Trade Organization (the GATT implementing body) to utilize Codex commodity standards where applicable in the implementation of the TBT.

Codex thus becomes a true international focal point for food safety and quality with major impact on international trade and domestic food regulations.

Codex Organization and Operation

Figure 1 shows the organization of Codex. The Codex Alimentarius Commission, comprising representatives of each member country, establishes policy and work priorities, and adopts standards based on the recommendations of the Commission's subsidiary bodies. The Commission currently meets once every two years; an Executive Committee acts on its behalf in the interim.

Two sets of committees carry out the extensive work of Codex, the world wide general subject committees (e.g., Pesticide Residues, Food Additives and Contaminants, Food Hygiene) and the world wide commodity committees (e.g., fresh fruits and vegetables, fish and fishery products). The general subject committees establish food safety standards or codes of conduct in their named areas of operation while the commodity committees establish product compositional and quality specifications. Additionally, Codex regional committees define problems specific for the region they represent, recommend worldwide or regional standards for products of interest to the region and serve as a forum for discussion of regional or international matters of interest.

Two additional organizations deserve mention. The FAO and WHO maintain two expert technical committees, the Joint Expert Committee on Food Additives (JECFA) and the Joint Meeting on Pesticide Residues (JMPR). While not specifically a part of Codex, these committees provide in-depth scientific expertise to evaluate the safety of pesticides, food additives, contaminants (e.g., heavy metals) and veterinary drugs; their recommendations are provided to the general subject and commodity committees for use in establishing Codex standards. Codex also provides for observer organizations, bodies which can have input into the development of Codex standards but which do not have a vote at Committee or Commission meetings. Observer organizations include the World Trade Organization, the International Organization for Standardization and Consumers Union International.

An eight step procedure is used to establish Codex standards, guidelines and codes of practice (Figure 2). Subsidiary bodies, the Commission or the Executive Committee can propose standards for consideration; approval for standards development must be given by the Commission or the Executive Committee. Substantial opportunity is provided for input into standards by governments, observer organizations, and non-governmental organizations including industry and consumers.

Codex decision making is, by design, a deliberative process to ensure worldwide consensus. For standards with early general agreement, a fast track approach exists with adoption possible at Step 5 of the process.

To assist in the development and assessment of new technologically complex areas, Codex may use a consultation process, employing meetings ("Consultations") of internationally recognized experts representing governments and non-governmental organizations. Most recently, this process has (and is) being used for the Hazard Analysis and Critical Control Point (HACCP) and Risk Assessment areas.

Member countries normally maintain a Codex contact point that serves as a liaison between the Codex Secretariat (located in Rome, Italy) and governments and interested organizations. For Egypt, the current Codex contact point is the President of the Egyptian Organization for Standardization (currently, Dr. A.B. El Sebai, 2 Latin America St., Garden City, Cairo, phone 20.2.3549720, FAX 20.2.3557841).

Individual countries participate in those Codex Committees of interest to them. Country delegates and spokespersons to Codex must be government representatives although industry and consumer representatives can serve as advisors. Figure 3 presents the Calendar of 1996 Codex Committees.

Important New Policy Developments within Codex

Two recent policy thrusts within Codex establish the direction for future decision making and confirm the relationship between Codex and the GATT.

Sound Science as the Basis for Decision Making. Figure 4 presents the four principles established by the 1995 meeting of the Codex Commission as the basis for its decision making. These principles are critical to Codex since they state unequivocally that science, as opposed to non-science factors such as social factors, economics, or trade policy will be the basis for establishing Codex standards. They establish the firm commitment of Codex to meet the scientific rationale for standards setting specified in the GATT SPS Agreement.

Enhanced Risk Assessment. Recognizing the provision of GATT mandating the use of risk assessment in standards setting, FAO and WHO, in conjunction with Codex, have initiated a technical consultation on *The Application of Risk Analysis to Food Standards Issues*. The consultation is designed to strengthen the scientific basis for establishing both chemical and biological standards, improve the transparency of the standards setting process and improve procedures by which countries manage food related risks. While currently at the beginning, this process will have a significant impact on Codex standards setting and on the acceptance of Codex standards by countries.

Impact on Competitiveness

While regulatory changes arising from Codex will be important, their impact on the competitiveness of the food and allied industries may be more important. Examples of how Codex standards can effect competitiveness are multiple and include the following.

- Codex commodity standards may hinder or enhance available markets for a product by specifying compositional requirements that a product may or may not meet.
- Changes in pesticide MRLs may increase (or decrease) the ability of your competition (especially that from other countries) to meet new residue requirements.
- Acceptance or rejection of food additive permitted usage may restrict (or enhance) a product.
- Codex HACCP requirements may impact on production costs for a product.
- Codex import and export inspection/certification procedures have the potential to impact on basic access to the international marketplace.

For Egypt, Codex represents a comprehensive set of food safety and compositional standards that are recognized internationally. Such standards can help form the basis of a program that ensures both the safety of the product and its compliance with internationally accepted standards of composition without using extensive and unacceptable standards of product quality.

In conclusion, it is fair to say that Codex influences both international and domestic food regulation, and thus, food production and trade. The full extent of the impact is difficult to estimate since the GATT/Codex relationship is new and developing. It is important to monitor the activities of Codex, the work of the SPS and TBT committees of the World Trade Organization that are impacted by Codex, and to fully participate in the deliberations of Codex and the WTO.

References:

1. *This is Codex Alimentarius*. 2nd Edition. Food and Agriculture Organization of the United Nations. Rome, Italy. 1994.
2. *Codex Alimentarius Commission Procedural Manual*. Eighth Edition. Food and Agriculture Organization of the United Nations, World Health Organization. Issued by the Secretariat of the Joint FAO/WHO Food Standards Programme. FAO. Rome, Italy. 1993.
3. *Application of Risk Analysis to Food Standards Issues, Report of the Joint FAO/WHO Expert Consultation*. Geneva, Switzerland, 13-17 March, 1995. Issued by the World Health Organization in collaboration with the Food and Agriculture Organization of the United Nations. 1995.

FIGURE 1

Subsidiary Bodies of the Codex Alimentarius Commission

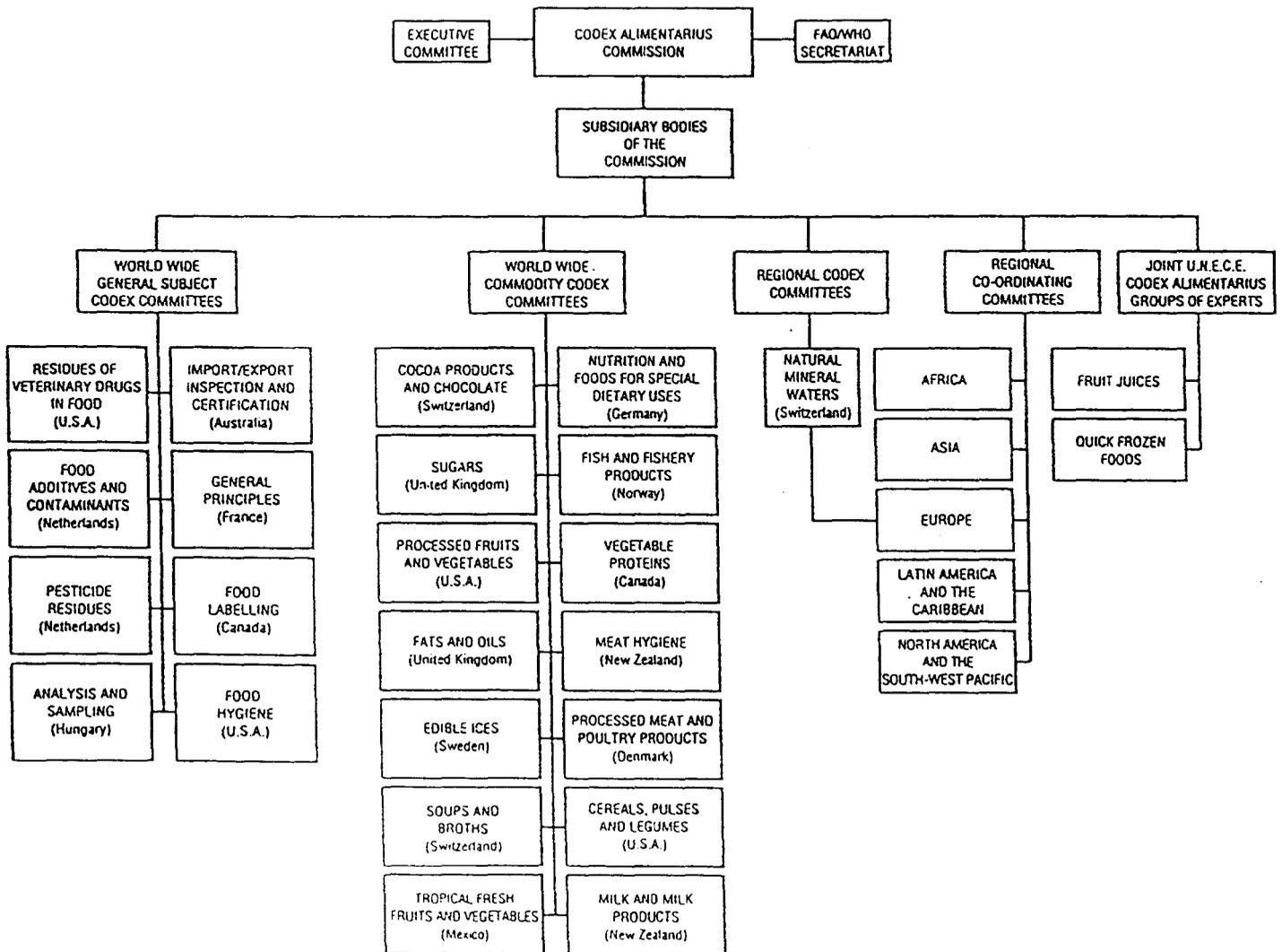


Figure 2

Step Procedure for Approval of Codex Standards

- Steps 1-4: Codex Commission approves proposal for new proposed standard and assigns to Committee. Secretariat arranges for draft proposed standard. Proposed draft standard sent to countries for comments. Draft proposed standard and country comments reviewed by assigned Codex Committee.
- Steps 5-7: Initial review of proposed draft standard by Commission. Draft standard forwarded to member countries and Codex Committees for review and comment.
- Step 8: Final Review of proposed draft standard by Commission. Acceptance as standard or modified standard, or rejected.
- Fast Track: Proposed draft standard approved as standard at Step 5 when no objection exists.

FIGURE 3

Calendar of 1996 Codex Committees...

<i>Jan. 29-Feb. 2</i>	<i>- Fresh Fruits & Vegetables</i>
<i>Feb. 19-23</i>	<i>- Food Export & Import Inspection and Certification Systems</i>
<i>March 18-22</i>	<i>- Food Additives & Contaminants</i>
<i>April 15-20</i>	<i>- Pesticide Residues</i>
<i>May 6-10</i>	<i>- Fish & Fishery Products</i>
<i>May 14-17</i>	<i>- Food Labeling</i>
<i>May 27-31</i>	<i>- Milk & Milk Products</i>
<i>Sept. 30-Oct. 2</i>	<i>- Cocoa Products & Chocolate</i>
<i>Oct. 3-5</i>	<i>- Natural Mineral Waters</i>
<i>Oct. 7-11</i>	<i>- Nutrition and Foods for Special Dietary Uses</i>
<i>Oct. 21-25</i>	<i>- Food Hygiene</i>
<i>Oct. 29-Nov. 1</i>	<i>- Residues of Veterinary Drugs in Foods</i>
<i>Nov. 4-8</i>	<i>- Fats & Oils</i>

Figure 4

Codex Sound Science Principles

- Food standards, guidelines and other recommendations of Codex Alimentarius shall be based on the principle of sound scientific analysis and evidence, involving a thorough review of all relevant information, to ensure the quality and safety of the food supply.
- When elaborating and deciding upon food standards Codex Alimentarius will have regard, where appropriate, to other legitimate factors relevant for the health protection of consumers and for the promotion of fair practices in food trade.
- In this regard, it is noted that food labeling plays an important role in furthering both of these objectives.
- When the situation arises that members of Codex agree on the necessary level of public health protection but hold differing views about other considerations, members may abstain from acceptance of the relevant standard without necessarily preventing the decision by Codex.

APPENDIX L

*Egyptian Prime Ministerial Committee on
Standards and Quality Control
(Decree No. 1193/1996) Membership List*

**Decree by Prime Minister
1123/1996**

Prime Minister

After reviewing Law 21/1958 concerning organizing and promoting industry;
and Agricultural Law 53/1996;
and Law 118/1975 concerning Imports and Exports;
and Presidential Decree 1770/1971 concerning establishing the General Organization for Export and Import Control (GOEIC);
and based upon the presentation by the Minister of Trade and Supply (MOTS);

Decreed

Article (1)

A committee comprised of the following persons will be established to work with their American counterparts who are preparing a study to develop and modernize Egyptian standard specifications to cope with international standards as follows:

- Director of GOEIC: Chairman
- Director of Foreign Trade Sector at the MOTS: Secretary
- Representative of Ministry of Agriculture and Land Reclamation
- Representative of Ministry of Industry and Mineral Wealth
- Representative of Standardization Authority
- Representative of Ministry of Health and Population
- Representative of MOTS (Foreign Trade Sector)
- Representative of GOEIC
- Representative of Federation of Egyptian Chamber of Commerce (Importers Section)
- Representative of Federation of Egyptian Industries
- Representative of Egyptian Businessmen Association in Cairo
- Representative of Egyptian Businessmen Association in Alexandria
- Representative of Academy of Scientific Research
- Two professors from universities specializing in the above stated topics, chosen by the Minister of Trade and Supply.

Article (2)

The chairman of this committee may establish sub-committees and determine their specializations.

Article (3)

The results and recommendations of this committee and the sub-committees will be presented to the Prime Minister to decree and authorize in order to be implemented by the responsible ministers.

Article (4)

The concerned authorities will implement this decree

Prime Minister
Dr. Kamal El Ganzoury

Issued by Cabinet of Ministers 27 April 1996.

Serial No.	Concerned Body	Name	Job	Address	Telephone
1	Ministry of Trade and Supply (COP)	Mr. Said Abou El Komsan	First Under Secretary of Ministry of Trade & Supply and Head of Foreign Trade Sector		
2	Ministry of Agriculture and Land Reclamation	Dr. Ahmed Farid El Sahrigy	Consultant at Agriculture Engineering Research Institute	Ministry of Agriculture and Land Reclamation Nadi El Seid St., Dokki	3487212
3	Ministry of Industry And Mineral Wealth	Eng. Magdy Barakat	General Manager for Specifications Standards	2 Latin America St., Garden City	
4	Egyptian Organization for Standardization	Eng. Samia Mahmoud El Azazy		Standard Unification 3 Latin America St.	3544523
5	Ministry of Health and Population	Dr. Magda Rakha	Under Secretary for Central Labs	Ministry of Health Maglees El Omma St.	3548544
6	Ministry of Trade and Supply - Foreign Trade Sector	Mr. Abd El Rahman Ezz El Deen	General Manager for Foreign Exchange	Foreign Trade Sector Bustein St. - Agakhan	
7	General Organization for Export and Import Control (GOEIC)	Dr. Mohamed Abd El Hamid Othman Mr. Hussein Mohamed Hassan	Head of Central Dept. Head of Central Dept.		
8	The Egyptian Federation of Chamber of Commerce	Mr. Mohei El Deen Kandiel	Head of General Committee of Importers	The Egyptian Federation of Chamber of Commerce 4 El Falky Square	5785217
9	The Egyptian Federation of Industries	Eng. Mohamed Ehab El Massiry	Member of Board of Directors of Textile Industries	The Egyptian Federation of Industries Sherif St. - El Emobelia Building	3482662
10	Egyptian Businessmen Association	Eng. Khaled Hamza	Head of Import Committee	Egyptian Businessmen Association 21 Giza St. - Nile Tower	3929615 3922785
11	Alexandria Businessmen Association	Mr. Ahmed Abd El Mohssein Farahat	Member of Board of Directors	Alexandria Businessmen Association 53 Horria St.	03 4805242
12	Scientific Research Academy	Dr. Mohamed El Feky Dr. Nabil Youssri Abou Zeid	Chairman of the National Institute for Standardization Vice Chairman of the Academy	Ministry of Scientific Research Kasr El Ainy St. Scientific Research Academy Kasr El Ainy St.	
13	Two of the University staff members specialized in the former aspects, shall be chosen by the Minister of Trade & Supply				



بإعانة السيد وزير الزراعة

مع حلاصته المحيية

خاتمة بوزارة

رئيس الوزراء

قرار رئيس مجلس الوزراء

رقم ١١٢٣ لسنة ١٩٩٦

مكتب الوزير

رقم الإفادة: ٤٠٦

التاريخ: ١٣٩٦/٥/٥

رئيس مجلس الوزراء

بعد الاطلاع على القانون رقم ٢١ لسنة ١٩٥٨ في شأن تنظيم الصناعة وتشجيعها ، وعلى قانون الزراعة الصادر بالقانون رقم ٥٣ لسنة ١٩٦٦ ، وعلى القانون رقم ١١٨ لسنة ١٩٧٥ في شأن الاستيراد والتصدير ،

وعلى قرار رئيس الجمهورية رقم ١٧٧٠ لسنة ١٩٧١ بإنشاء الهيئة العامة للرقابة على الصادرات والواردات ، وبناء على ما عرضه وزير التجارة والتموين ،

قرر

(المادة الاولى)

- تشكل مجموعة العمل المصرية المقابلة لفريق العمل الامريكى والتي ستقوم بدراسة تطوير وتحديث المواصفات القياسية المصرية على نحو يواكب المواصفات القياسية العالمية على النحو التالى :
- رئيس مجلس ادارة الهيئة العامة للرقابة على الصادرات والواردات - رئيسا .
 - رئيس قطاع التجارة الخارجية بوزارة التجارة والتموين - مقررأ .
 - ممثل عن وزارة الزراعة واستصلاح الاراضى .
 - ممثل عن وزارة الصناعة والثروة المعدنية .

صدره

مقره

السيد وزير الزراعة

ملاصحة

Handwritten signature and notes in the top left corner.



- ممثل عن الهيئة العامة للتوحيد والقياس
- ممثل عن وزارة الصحة والسكان
- ممثل عن وزارة التجارة والتموين (قطاع التجاره الخارجية)
- ممثل عن الهيئة العامة للرقابة على الصادرات والواردات
- ممثل عن الاتحاد العام للغرف التجارية (شعبة المستوردين)
- ممثل عن الاتحاد العام للصناعات المصرية
- ممثل عن جمعية رجال الاعمال المصريين بالقاهرة
- ممثل عن جمعية رجال الاعمال بالاسكندرية
- ممثل عن اكااديمية البحث العلمى
- اثنان من اساتذة الجامعات المتخصصين فى المجالات سالفه الذكر يختارهما وزير التجارة والتموين

(المادة الثانية)

لرئيس مجموعة العمل تشكيل لجان فرعية وتحديد اختصاصاتها .

(المادة الثالثة)

تعرض نتائج اعمال وتوصيات مجموعة العمل واللجان المنبثقة عنها على رئيس مجلس الوزراء لاقرارها واعتمادها ووضعها موضع التنفيذ من خلال الوزراء المعنيين كل فيما يخصه .

(المادة الرابعة)

على الجهات المختصة تنفيذ هذا القرار .

صدر برئاسة مجلس الوزراء فى ٩ ذى الحجة سنة ١٤١٦ هـ (دكتور / كمال الجنزورى)
الموافق ٢٢ ابريل سنة ١٩٩٦ م

صورة مرسلة الى السيد / وزير التجارة .

رقم التليفون	العنوان	الوظيفة	الاسم	الجهة	م
		وتيل أول وزارة التجارة والتموين رئيس قطاع التجارة الخارجية	السيد الأستاذ/ سيد أبو القمصان	وزارة التجارة والتموين مقروا	١
٣٤٨٧٢١٢	وزارة الزراعة واستصلاح الأراضي القاهرة	المستشار بمعهد بحوث الهندسة الزراعية	السيد الأستاذ الدكتور/ أحمد فريد السيد جرجي	وزارة الزراعة واستصلاح الأراضي	٢
				وزارة الصناعة والثروة المعدنية	٣
٣٥٤٤٥٢٣	التوحيد القياسي ٣ ش أمريكا اللاتينية		السيدة الأستاذة مهندسة/ سامية محمود العزوي	الهيئة العامة للتوحيد القياسي	٤
٣٥٤٨٥٤٤	وزارة الصحة - ش مجلس الأمة	وتيل الوزارة للمعامل المركزية	السيدة الأستاذة الدكتورة/ ماجدة رجا	وزارة الصحة والسكان	٥
	قطاع التجارة الخارجية شارع البستان - آغا خان	مدير عام الدعم الأجنبي	السيد الأستاذ/ عبد الرحمن عز الدين	وزارة التجارة والتموين قطاع التجارة الخارجية	٦
		رئيس إدارة مرتزبة رئيس إدارة مرتزبة	السيد الأستاذ الدكتور/ محمد عبد الحميد عثمان السيد الأستاذ/ حسين محمد حسن	الهيئة العامة للرقابة على الصادرات والوحدات	٧
٥٧٨٥٢١٧	الاتحاد العام للغرف التجارية ١ ميدان الفتى	رئيس الشعبة العامة للمستوردين	السيد الأستاذ/ محي الدين قنديل	الاتحاد العام للغرف التجارية	٨
٣٤٨٢٦٦٢	اتحاد الصناعات المصرية ش شريف - عمارة الإيموبيليا	عضو مجلس إدارة غرف الصناعات النسيجية	السيد الأستاذ المهندس/ محمد أماب السيري	الاتحاد العام للصناعات المصرية	٩
٣٩٢٩٦١٥ ٣٩٢٢٧٨٥	جمعية رجال الأعمال المصريين ٢١ ش الخيزة - برج النيل	رئيس لجنة الإستيراد	السيد الأستاذ المهندس/ خالد حمزة	جمعية رجال الأعمال المصريين بالقاهرة	١٠
٠٣٤٨٠٥٢٤٢	جمعية رجال الأعمال بالإسكندرية ٥٣ طريق الحرية	عضو مجلس الإدارة	السيد الأستاذ/ أحمد عبد المحسن فرحات	جمعية رجال الأعمال بالإسكندرية	١١
	وزارة البحث العلمي ش القصر العيني	رئيس المعهد القومي للمعايرة	السيد الأستاذ الدكتور/ محمد الفقي	أكاديمية البحث العلمي	١٢
	أكاديمية البحث العلمي ش القصر العيني	نائب رئيس الأكاديمية	السيد الأستاذ الدكتور/ نبيل يسري أبو زيد		
				تتبع من أمانة الجامعات المتخصصة في المجالات كافة التي يختارها وزير التجارة والتموين	١٣