

## **Pilot Study for Pre-Certification of Imported Products**

Prepared For

**The General Organization for  
Export and Import Control  
Ministry of Trade and Supply**

Submitted To

**USAID  
Economic Growth/Sector Policy  
Cairo, Egypt**



Submitted By  
**Nathan Associates Inc.**

Under  
**Contract # 263-C-00-96-00001-00**

March 1998

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*For the:*

**General Organization for Export and Import Control  
Ministry of Trade and Supply, Government of Egypt**

*Submitted by:*

**Nathan Associates Inc., Arlington, Virginia**

**Development Economic Policy  
Reform Analysis (DEPRA) Project  
A USAID/Egypt funded Project with the  
Ministry of Economy and the  
Ministry of Trade and Supply**

**USAID/Egypt Contract # 263-C-00-96-00001-00  
Task Order #18**

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**March 1998**

# *Pilot Study for Pre-Certification of Imported Goods*

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## **PREFACE**

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This report is based on a study conducted by the Development Economic Policy Reform Analysis (DEPRA) Project, under contract to the United States Agency for International Development, Office of Economic Policy and Analysis, Cairo, Egypt (USAID/Egypt) (Contract No. 263-C-00-96-00001-00, Task Order No. 18).

The DEPRA project is intended to encourage and support macroeconomic reform in Egypt through the provision of technical assistance and services to the Ministry of Trade and Supply with particular focus on international trade and investment liberalization, deregulation and financial sector strengthening.

The study was conducted, and this report was authored by, a team of consultants comprised of Mr. Edward Nemeroff, Team Leader, Dr. Ahmed Mahrous Moharram, and Eng. Mamdouh M. El Sayed.

Dr. Rollo Ehrich and Mr. Abdul Wahab Heikal were the DEPRA coordinators for the study. The team would like to express their special appreciation to Dr. Fakhr El-Din Abu El-Ezz, GOEIC and Dr. Abdel Basit El Sebai, EOS, Ministry of Industry, who fully cooperated in aspects of the study. The team would also like to express their gratitude and special thanks to all entities, both private and public, who gave selflessly of their time to help this study to achieve its purposes. A special thanks is owing Ms. Sally El Shahawy, DEPRA/MOTS executive secretary, for tirelessly and efficiently producing this document.

The authors are solely responsible for all opinions expressed in this report, and the conclusions and recommendation do not necessarily reflect opinions and policies of either the GOE, USAID, or the DEPRA Project.

## **Executive Summary**

### **Purpose of the Study:**

**Background:** The Government of Egypt has initiated a strategic program of economic reform and re-construction aimed at improving the efficiency of Egyptian industry and the export potential of its manufactured products. The program is driven by the need to improve the overall performance of the Egyptian economy. The core of this program is increasing global trade. In order for this to become reality, the current Egyptian import and export process will need to be modernized, simplified, and overhauled, that is streamlined, to facilitate an efficient system of movement of products through the ports without compromise of consumer safety or other national security requirements.

The present study is an integral part of efforts under the USAID-financed DEPRA Project to develop trade policy reforms that facilitate trade and economic growth in the emerging global economy. The study was prepared by Mr. Edward Nemeroff, Team Leader, Dr. Ahmed Mahrous Moharram, and Eng. Mamdouh M. El Sayed. The study was designed and coordinated by Dr. Rollo Ehrich and Mr. Abdul Wahab Hiekal of the long-term DEPRA staff.

**Objective:** Streamline the inspection and testing process of imported goods without compromising consumer safety, public health, and environmental protection. This will result in cost savings to industry and government and enhance trade.

**The scope of work:** This Study centers on considering alternative methods of inspecting and testing of goods moving through Egyptian ports. The study team conducted research and fact finding during the period of February 14 through March 25, 1998. During this period, and other times, the team members reviewed all relevant studies and documents, visited Government and industry organizations and conducted interviews and meetings with members of the organizations listed in the body of the report.

### **Conclusion of the Study:**

Based on analysis of the information collected, we have concluded that, for non-food products, pre-inspection and pre-certification is a viable alternative to the presently existing system.

Many Egyptian documentation standards and their application are incompatible with internationally accepted norms and many do not comply with the WTO – “technical Barriers to Trade” agreement. The present system requires mandatory inspection and testing of imported products for safety, public health, and environmental protection by GOEIC. It also appears that GOEIC is testing many products for consumer protection and product quality.

It is imperative that the Government of Egypt agrees on a clear definition of standards and technical regulations and insures that they are used properly and consistently by all Ministries and organizations.

It should be noted that the official list of inspected and tested items provided to DEPRA by GOEIC contains 130 line items, 26 of which are foods and agriculture products. The list contains categories or groups of products that do not appear to have any safety, public health or environmental implications. It would be desirable, if not essential to clarify these

inconsistencies at some early future date. A study should be undertaken to see how this list compares to the 320-340 mandatory standards issued by EOS.

## **Summary of Recommendations**

### **1. Reduce the number of imported products requiring inspection at the point of entry by:**

- a) Releasing products bearing an internationally recognized product certification safety mark, without further testing or inspection, where accompanied by certificates of compliance, limiting inspection to spot checks only.
- b) Releasing products that have been pre-inspected or tested to an internationally accepted standard in the country of origin by an accredited laboratory, without further testing or inspection, when accompanied by certificates of compliance, limiting inspection to spot checks only.
- c) Releasing products without further inspection that have been tested by an accredited Egyptian private sector inspection body in compliance with mandatory requirements, if the inspection company is recognized by GOEIC, or the concerned Egyptian authority, or any accredited, third-party laboratory, limiting inspection to spot checks only.
- d) For non-certified, non-pre-inspected products, GOEIC has the right to inspect and test products at the port of entry, either in its own laboratories or through a recognized third party.
- e) Establishing a register of repeatedly imported products, that meet Egypt's requirements and show a past history of compliance, or are certified by a recognized body as complying with safety, health and environmental requirements. Spot checks are recommended.
- f) Streamline the inspection process at the ports, improving the conditions between customs and GOEIC.

2. The register of repeatedly imported products, that meet Egypt's requirements for products to be freely traded in the Egyptian market, should consist of the mandatory list (Decree 179-86). Products on that list will have an Egyptian standard, or either one of the ISO, ANSI, BS, and IEC standards. Registered products would be directly cleared at the ports without any further inspection or testing. It is also recommended that the GOE and private sector consider establishing a similar system for registering exported products to streamline its current system for inspecting such exports. It should be noted that a USAID funded project team is presently installing a computer network within MOTS, Foreign Trade Sector. It appears that much of the data required to develop a database for the suggested register could be obtained from this system and from the customs department.

### **3. Pre- shipment inspection:**

The GOE should establish a system and procedures for the choice, recognition, registration, and continual assessment of competent inspection companies. The inspection companies should be publicized to all importers and manufacturers. Requirements and qualifications of these inspection companies are listed in the body of the study.

### **4. With regard to conforming Egyptian standards to international norms:**

- a) Speed up the harmonization process of Egyptian standards with ISO, IEC, and ITU standards, where they exist. Follow the EU approach which is to directly adopt these standards.

- b) Stop mandating standards on the basis of quality criteria, confining technical regulations to health, safety environment, cultural and geographical aspects of products.
  - c) A national body should be formed for determining what products are to be regulated and what technical regulations are required for their control. The recently formed Egyptian Accreditation Council might be able to provide this function, if somewhat reorganized.
  - d) Recognize internationally accepted safety marks when certified by a recognized, competent body.
5. Establish a National Product Conformity and Consumer Protection Board:  
 Preferably through combining GOEIC and EOS laboratories and some of their functions into a single national inspection and testing organization as a first step. The purposes of this body would be to:
- a) Promote exports by providing internationally recognized conformity assessments for Egyptian products.
  - b) Provide certificates of conformity to international safety marks for both internationally and domestically manufactured products.
  - c) Provide certificates of conformity to Egypt's technical regulations.
  - d) Provide spot-check services in response to requirements of consumer protection bodies and authorities responsible for the quality and safety of products offered for sale in the Egyptian market.
  - e) Avoid costly contradictions in test results arising from separate government inspection bodies.
  - f) Eliminate costly duplication of effort in the GOE inspection process. In case combining GOEIC and EOS laboratories is not possible within a reasonable time, the study recommends implementation over two phases:
    - (1) Declare GOEIC laboratories the National Product conformity Assessment Laboratory; for issuing product conformity certificates and for carrying out inspections, tests and spot checks required by The Ministry of Trade and Supply.
    - (2) Gradually work towards merging many of the functions now being performed by EOS into the new organization.
6. Establish a quality assurance department in GOEIC to insure continual compliance to the requirements of ISO 9000, laboratory accreditation and other international standards and technical regulations. Set schedule and implement plan for preparing the laboratories for compliance with ISO/IEC Guide 25 and NCSL/ANSI Z540-2. Apply for accreditation by an internationally recognized accreditation body working in conjunction with the Egyptian National Laboratory Accreditation Bureau. The US NIST is currently working with NLAB to be in the position to provide this service.

**Priority Actions Required by the GOE to Conform with the WTO/TBT Agreement:**

The above six recommendations cover TBT requirements to a large extent. However, underlining certain key TBT requirements will serve the purpose of focusing decision-maker attention on immediate WTO concerns. These concerns are summarized in detail below.

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 fulfill a legitimate objective, taking account of the risks that non-fulfillment 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; and protection of the environment. In assessing such risks, relevant elements of consideration are, inter alia; available scientific and technical information, related processing technology and intended end uses of products.

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 fulfillment of the legitimate objectives pursued. For instance, if fundamental climatic or geographical factors or fundamental technological problems were encountered. Modification of the international standards may be appropriate.

With a view toward 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. Moreover, direct acceptance or adoption of internationally accepted standards, including product safety marks, is a preferred course of action.

Members shall give positive consideration to accepting as equivalent the 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. Our recommendation that product safety marks be accepted by GOEIC is consistent with this part of the TBT agreement.

Wherever appropriate, Members shall specify technical regulations based on requirements in terms of performance rather than design or descriptive characteristics.

Quantitative restrictions on imports and all measures having equivalent effect shall, without prejudice to the following provisions, be prohibited between the Member States.

The provisions of Articles 30 to 34 of the TBT agreement shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on the ground of public morality, public policy or public security; the protection of health and life of humans, animals or plants; the protection of national treasures possessing artistic, historic or archeological value; or the protection of industrial and commercial property. Such prohibitions or restrictions shall not, however, constitute a means of arbitrary discrimination or a disguised restriction on trade between Member States.

### **Fundamental trade Policy Implications of Study Results:**

The WTO/TBT Agreement: Egypt, as a signatory to this agreement, has certain obligations to fulfill, although the agreement is not overly demanding in its requirements. Perhaps the single most important obligation is the requirement that each Member adopt international standards

as a basis for its own standards. Almost all other obligations in fact flow from this one requirement.

Under the TBT Agreement, product quality attributes should be voluntary. Safety and health attributes are labeled technical regulations and are mandatory to protect consumers. Internationally accredited bodies certify that products meet minimum specifications. The goal is to conform virtually all standards to an international standards to facilitate the free flow of goods internationally; and to have inspection norms conform to accepted international practices. Fundamentally, the WTO/TBT Agreement aims to reduce technical barriers to trade, thereby reducing transaction costs, lowering input and product prices and generally facilitating the realization of potential comparative advantage through trade.

Concrete Reform Steps Needed by MOTS: The steps that can most easily be directly taken by MOTS/GOEIC under its current mandate are:

- (1) Stop inspecting and testing for quality attributes;
- (2) Inspect only for those technical regulations for safety, health and environment that conform to international norms;
- (3) Do not inspect those products that have already been inspected by another GOE Agency;
- (4) Adopt a policy of accepting products that are pre-certified for safety by an internationally accredited body, without inspection; and
- (5) Adopt a policy of accepting pre-inspected products that are inspected by a body accredited internationally and approved by GOEIC.
- (6) Establish a register of repeatedly imported or exported products.

Inter-Ministerial Cooperation Required: Other actions will largely have to be carried out by inter-ministerial agreement. Reaching such an agreement probably requires establishing a high-level, National Product Conformity and Consumer Protection Body. The key actions of this type required to fully conform the system of technical regulations and inspection thereof include:

- (1) Harmonize standards and regulations with international norms, involving coordination among the Ministry of Trade and Supply (GOEIC), the Ministry of Industry(EOS), the Ministry of Health, and the Ministry of Agriculture. The study recommends following the EU approach of directly adopting international standards wherever practicable.
- (2) Review the system of laws and decrees issued to cover consumer protection from the point of view of standards and regulations, with a view to rationalizing the process.
- (3) Reorganize the bureaucratic system currently in place to set and implement product technical regulations, to avoid duplicative sampling and testing, to avoid inconsistent

application of regulations, and to avoid proliferation of conflicting regulations emanating from different Ministries.

It was made quite clear by this Pilot Study that harmonizing standards, reaching Mutual Recognition of Standards, and adopting streamlined methods of inspection, such as pre-certification and pre-inspection, will only solve part of the problem causing technical barriers to trade. In the Egyptian system, two additional practices are extremely important: (1) issuance of decrees regulating imports by any of several Ministries, and (2) the existence of a system of domestic inspection of products parallel to the system applied to imports at ports of entry. Regarding the latter, the case study reviewed in the Pilot Study shows clearly that even if an imported product moves smoothly and efficiently through inspection at the port, it may still be inspected later by a Ministry of Trade and Supply entity and tested, perhaps against a different standard. This practice introduces confusion into the system and is certainly a technical trade barrier, adding costs to the importation of goods into Egypt.

Pre-Certification and Pre-Inspection: The Report is quite clear on the significant advantages of these alternatives to inspection at the ports. However, EOS officials, those of GOEIC and FTS officials indicated that recognition of international conformity and safety marks could not occur prior to achieving a Mutual Recognition Agreement (MRA) from other international accrediting bodies. An MRA, in return, could not occur until a lengthy process of harmonization of standards, technical regulations and accreditation of laboratories could be completed. This could take years. It is highly recommended that the GOE consider immediate and unilateral recognition of International Safety Marks (pre-certification) for all non-food products. The safety of the products is guaranteed by a very thorough international system of inspection, so safety risks are an absolute minimum. Unilateral recognition of these marks enables savings in inspection costs immediately, shows progress toward fulfilling WTO obligations, and does not appear to sacrifice anything in the way of reciprocal concessions that might be exacted by waiting for an MRA.

Pre-inspection of goods at ports of export, while not as efficient as pre-certification, has two advantages over the current system of inspection at the port. First, an internationally accredited entity can insure that goods pass inspection before they are committed for export to Egypt. GOEIC's capacity to cover technical regulations can thus be expanded by contracting. Second, pre-inspection can be applied against existing Egyptian standards and can be used for food products as well as non-food products.

Benefits from Reforming Standards and Technical Regulations: Streamlining the system of product standards and regulations, and inspection and testing for conformance thereto, has the primary benefit of reducing barriers to trade with its concomitant positive impact on the overall economy. Lower import transactions costs will act as a stimulus to both imports and exports, and should result in lower consumer prices. In other words, a technical trade barrier negatively impacts on welfare and inhibits both imports and exports in much the same way that a tariff or a quota does.

But an improved regulatory and inspection system will generate other benefits as well. Use of international safety marks should greatly reduce consumer risk in many cases. The thorough testing done for safety aspects under the international safety mark process (pre-certification) is actually far more stringent than could possibly be done by GOEIC at the port of entry.

Products and their crucial component parts are inspected at the factory, enabling more precise tests for safety.

One benefit, often overlooked in assessments of technical regulations, could be enhancing the marketability of Egyptian products in export markets. Harmonized standards lead directly to international recognition of both quality and safety standards and therefore are in and of themselves a marketing tool. This could provide international recognition of Egypt's own quality and safety mark, the next step beyond harmonization, which should enable Egyptian manufacturers to export their products much more freely, exploiting market recognition of an established mark.

In conclusion, then, it is clear that the cost of reforming the Egyptian system should be offset many times over by benefits accruing to Egyptian industry and Egyptian consumers. Welfare costs (if any) of easing regulations should also be completely offset by gains from increased trade.

## **Section 1**

### **Introduction**

#### **1.1. General**

The Government of Egypt has initiated a strategic program of economic reform and reconstruction aimed at improving the efficiency of Egyptian industry and the export potential of its manufactured products. The program is driven by the need to improve the overall performance of the Egyptian economy. The core of this program is increasing global trade. In order for this to become reality, the current Egyptian import and export process will need to be modernized, simplified, and overhauled, that is, streamlined, to facilitate an efficient system of movement of products through the ports without compromise of consumer safety or Egyptian requirements.

The present study is an integral part of efforts under the USAID-financed DEPRA Project to develop trade policy reforms that facilitate trade and economic growth in the emerging global economy. The study was prepared by Mr. Edward Nemeroff, Team Leader, Dr. Ahmed Mahrous Moharram, and Eng. Mamdouh M. El Sayed. The study was designed and coordinated by Dr. Rollo Ehrich and Mr. Abdul Wahab Hiekal of the long-term DEPRA staff.

#### **1.2. The Study**

Objective: Streamline the inspection and testing process of imported goods without compromising consumer safety, public health, and environmental protection. This will result in cost savings to industry and government and enhance trade.

The scope of work of this project centers on considering alternative methods of inspecting and testing of goods moving through Egyptian ports. The study team conducted research and fact finding during the period of February 14 through March 25, 1998. During this period, and other times, the team members reviewed all relevant studies and documents, visited Government and industry organizations and conducted interviews and meetings with members of the following organizations:

- Ain Shams University
- Cellopack Packaging Industries
- Center for Quality Assurance
- Egyptian Organization for Standardization
- General Organization for Export & Import Control
- Inspectorate, Quality Management Systems
- Ministry of Trade & Supply
- National Institute for Standards
- National Laboratory Accreditation Bureau
- Total Quality Consultancy Unit – NIS
- SGS, Societe Generale
- SGS, Egypt
- Underwriters Laboratory
- U.S. Embassy - Commercial Service
- U.S. National Institute of Standards & Technology
- U.S. National Voluntary Laboratory Accreditation Program
- United States Agency for International Development
- World Trade Organization

**Based on analysis of the information collected, we have concluded that non-food product pre-inspection and pre-certification is a viable alternative to the present process. Much of the information presented in this study addresses the issues that relate to implementing a successful program of pre-inspection, pre-certification, registration and harmonization of standards, toward stimulating trade.**

### **1.3. Organizational Focus:**

The study team acknowledges the efforts of the General Organization of Export and Import Control (GOEIC) and specifically its Chairman, Mr. Fakhr Abou El-Ezz in pursuing a pre-certification and pre-inspection system to simplify and enhance the Egyptian import testing and inspection process. While many issues that relate to the overall import process involve other government organizations, this report will primarily address those issues that are within GOEIC's mandate and those organizations that directly affect GOEIC's operation or are part of the import process.

### **1.4. Standards and Trade:**

For a pre-inspection or pre-certification system to be successful, Egypt must use standards and technical regulations that are in accordance with accepted international norms. Adopting harmonized standards could satisfy this requirement. Previous research studies developed by DEBRA addressed the issues of the role of standards in Egypt and the world. Recommendations made in the study on the "Quality Control System in Egypt" (July 1996) and "Review of Selected Egyptian Organization for Standardization (EOS) Food and Manufactured-Durable Goods Standards with respect to international norms" (October 1997) provide relevant guidance to reforming the standards and regulation system.

It is important to note the following:

- Differences in standards, conformity assessment and certification requirements from one country to another, may result in "Technical Barriers to Trade".
- The ideal is to have a single standard & corresponding conformity testing system accepted regionally and globally, irrespective of where that conformance testing is conducted.
- When standards are harmonized, nations benefit through:
  - ◆ Economic growth
  - ◆ Employment growth
  - ◆ Export & import growth

In recent years most of the world's industrial nations and developing countries have agreed on adopting common or harmonized standards and technical regulations without compromising consumer safety, public health and environmental protection. These standards and technical regulations play a major role in facilitating global trade. The European Union has issued a series of Directives defining the technical requirements which have to be satisfied by almost all products that could possibly have an adverse effect on safety or health. Adherence to these Directives is mandatory.

An example of EU Directives and their impact on US trade is instructive:

- Europe is the largest trading partner of the U.S. It is estimated that close to 50%, or \$60 billion, of U.S. exports are subjected to the EU Directives.

Egypt could experience a similar situation based on the current trade volume.

- Europe is Egypt's largest single trading partner, with close to 37.4% of exports and 40.9% of imports. Harmonizing Egyptian standards with EU directives would obviously benefit Egypt's exports.

Source: Ministry of Trade and Supply Report, March 1998

### **1.5. The Present Situation in Egypt:**

#### General Organization for Import and Export Control (GOIEC)

GOIEC maintains 22 offices/laboratories, eleven (11) offices and laboratories located at sea and air ports for import, and eleven (11) located throughout the country for export inspection. For all programs, GOIEC maintains a staff of 3000, about equally divided between import and export inspection activities.

#### Mandatory Testing of Each Lot of Product

Current import regulations require that every consignment of a product be inspected, regardless of the compliance history of the product, the country, the exporter, the shipper or the importer.

#### Quality Standards as a Regulatory Tool

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 GOEIC, upwards of 80 % of the resources are devoted to quality testing. 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.

#### Difficulty of Establishing Product Conformity to a Standard at the Port:

Current laws and decrees state that a consignment of imported goods for direct sale in the Egyptian market is not to be cleared before establishing its conformity to Egyptian standards, if it is on the mandatory list, or to a defined standard out of six international accepted standards, if it is not on the mandatory list. The procedures accepted internationally for type conformity assessment are exhaustive, cumbersome, time consuming and very costly. This is the case if the conformity can be established by tests carried out on the final product. For the most part, the products' quality characteristics have to be imbedded in the product either during the design or manufacturing stages, or both. For some products quality characteristics have to be tested at different stages of manufacturing .

Some of the reasons that make conformity assessment at the port very difficult, if not in some cases impossible, are:

- Some of the characteristics of the product cannot be established without carrying out a destructive test. These tests can be carried out without much concern if the product is relatively cheap, but for expensive products it is costly. Even if a sample of one is taken (which usually is not sufficient), this means adding the price of that unit to the cost of the shipment, therefore increasing its market price to the end user.
- Durability tests if required are not only destructive but also need a long time, which can reach weeks or months, thereby delaying product clearance, and consequently raising its cost.
- Stability of product performance is another characteristic which requires time consuming experimentation, also increasing product cost.
- Some product characteristics or detrimental effects cannot be discovered unless the product is in actual use.
- Characteristics of new, high-technology products need sophisticated experiments using very specialized techniques, testing procedures and special equipment.

#### The Current Inspection Process at the Port:

On arrival of commodities at a port of entry, a committee from customs and security bodies check each consignment for security reasons and for illegal products. The importer presents customs with the documentation required to clear the shipment. After review of these documents, customs either clears the shipments for release to the importer directly or directs the consignment to other bodies for testing of inspection. Agricultural products or products packed in materials, e.g. wooden crates, which may contain pests are sent to agricultural authorities for inspection. Industrial and manufactured commodities may be directed to industrial control at the Ministry of Industry if they are manufacturing inputs. Depending on the product, samples may also go for testing to the Ministry of Health, EOS, and other laboratories. Customs may also direct samples of some commodities to GOEIC or to other bodies for testing which is not related to inspection for health, safety, or quality control. This testing is done in order to classify products by HS code and to apply the correct tariff rate when customs is unsure of the product's classification.

In summary, the Egyptian customs authority directs samples to be taken from shipments of imported goods by a number of bodies for inspection and testing. While GOEIC operations, namely quality control inspection, are the main subject of this study, it must be recognized that in order to effectively streamline the import process in Egypt a number of reform initiatives must be undertaken outside the Ministry of Trade and Supply. The practice of testing samples for purposes other than those specified in the decrees defining mandatory inspection for environmental, health and safety purposes extends far beyond GOEIC's quality control operations and appear to be initiated by customs authorities under other administrative procedures.

To the extent that these selections for inspection are for other than the criteria for mandatory inspection defined by WTO agreements, they could constitute technical barriers to trade.

Thus, the GOE, in conjunction with the proposed "Inter-Ministerial Cooperation" steps presented below, must examine the relationship between customs practices and

other agency practices *vis a vis* product inspection for safety, health and environmental reasons, and take the necessary steps to rationalize the system in accordance with the WTO/TBT agreement.

#### Egyptian Standards:

Many Egyptian standards and their application are incompatible with internationally accepted norms and do not comply with the WTO "Technical Barriers to Trade" agreement. The Minister of Trade and Supply is the sole authority for deciding which commodities are to be subjected to import and export control. (Article 9 of Law 118, 1975). The system requires mandatory inspection and testing of imported products for safety, public health, and environmental protection by the General Organization of Export and Import Control (GOEIC). It also appears that GOEIC is testing many products for consumer protection against economic fraud and deceptive practices and some solely for quality. Imported products are often subjected to redundant inspections and lengthy delays in clearing ports. The overall impact of the present system not only increases the cost of importing products, but serves as a non-tariff barrier to trade, thereby reducing both imports and exports.

In recent years, some positive steps have been taken to improve the situation. These include:

- Reducing the number of product categories requiring mandatory inspection to 131 (179-86)
- Starting the process of updating and revising Egyptian Standards by EOS with the aim of harmonization to international standards. Although this process has begun, it has been slow and needs to be accelerated.

*Note: If EOS would consider the obligations in the WTO (TBT) agreement concerning acceptance of international standards, the lengthy process of updating and rewriting existing standards could be reduced dramatically.*

- The establishment of the "Egyptian National Accreditation Council"
- The establishment of the National "Laboratory Accreditation Bureau"
- Accreditation being considered for GOEIC and other private and public sector laboratories

#### **1.6. The Link between Laboratory Accreditation, Harmonized Standards and Mutual Recognition.**

There can only be mutual recognition agreements between international standardizing bodies when both parties utilize the same standards and conformity assessment is verified by a laboratory which accredited by a mutually recognized.

#### **1.7. The WTO (TBT) states:**

*"Where international standards exist or their completion is imminent, the standardizing body shall use them, or the relevant parts of them, as the basis for the standards it develops"*

#### **The difference between standards and regulations is clearly defined in the TBT:**

All Standards utilized should be in accordance with internationally accepted norms. Standards should be voluntary. To regulate the flow of a product in the market, the

WTO (TBT) agreement requires that mandatory conditions and requirements should be stated as Technical Regulations. The Technical regulations in turn should be confined to health, safety and relevant important consumer interests. They should not include any technical barriers to trade.

### **1.8. Definition of Technical Regulations and Standards per the WTO:**

#### **Technical Regulation:**

"Document which lays down product characteristics or their related process 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".

#### **Standard:**

"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 labeling requirements as they apply to a product, process or production methods".

The WTO TBT agreement contains the following statements regarding "Technical Barriers to Trade":

#### **Article 2.2 of the TBT agreement states:**

Members shall ensure that technical regulations are not prepared, adopted or applied with a view 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 fulfill a legitimate objective, taking account of the risks non-fulfillment 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.

#### **Article 2.4 states:**

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 fulfillment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.

#### **Article 2.6 states :**

With a view 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.

#### **Article 2.7 states :**

Members shall consider accepting as equivalent the technical regulations of other Members, even if these regulations differ from their own, provided they are satisfied that these regulations adequately fulfill the objectives of their own regulations.

**Article 2.8 states :**

Wherever appropriate, Members shall specify technical regulations based on requirements in terms of performance rather than design or descriptive characteristics.

For further information on Technical Barriers to Trade, please refer to the WTO document "Implementation and Administration of the Agreement on Technical Barriers to Trade". G/TBT/2/add.26. 29 October 1996

**The “Euro-Mediterranean Agreement”:**

The recommendations made by the project team are consistent with the obligations of the Euro-Mediterranean Agreement – Establishing an association between the European Community and their Member States of Part One, and the Arab Republic of Egypt of the Other Part . Although this agreement is not in its final form, there are two specific sections that should be noted.

**Article 49**

Standardization and Conformity Assessment.

The parties shall aim to reduce differences in standardization and conformity assessment cooperation in this field shall focus in particular on:

- i) Rules in the field of standardization, metrology, quality standards and recognition of conformity, in particular as regards sanitary and phytosanitary standards for agricultural products and foodstuffs;
- ii) Upgrading the level of Egyptian conformity assessment bodies, with the view to establishment, in due time, mutual recognition agreements in the area of conformity assessment

**Article 57**

The parties shall develop customs cooperation to ensure that the provisions on trade are observed. Cooperation will focus in particular on the simplification of controls and procedures concerning the customs clearance of goods.

**When this agreement becomes reality, the implementation of these sections will be in place if our recommendations are accepted and initiated. It is imperative that the Government of Egypt agrees on a clear definition of standards and technical regulations and insures that they shall be used by all Ministries and agencies.**

**1.9. Basic Requirements for a New System of Standards and Regulations:**

There are two basic requirements needed to implement a satisfactory system of facilitating imports into Egypt and simplifying the controls. Both GOEIC and EOS need to work together to accomplish:

1. Harmonize standards and develop technical regulations for accepting the entry of products into Egypt that conform to international norms (EOS).
2. Adopt well-developed international practices to ensure product conformity to the relevant technical regulations (GOEIC).

To achieve these requirements, Egypt should simplify the present process to:

- Eliminate multiple and redundant inspections
- Eliminate unneeded quality testing and inspection.

- Eliminate lengthy delays in movement of good through the ports.
- Eliminate rewriting and updating of present Egyptian Standards

The proposed new process should:

- Use internationally accepted standards and procedures as voluntary for trade and industry.
- Use Technical Regulations based on Harmonized standards as mandatory for both imported and locally manufactured products.
- Accept international safety marks (e.g. CE, UL, VDE, etc.), or products bearing those marks satisfy technical regulations of the WTO/TBT Agreement.
- Be in compliance with the WTO (TBT) obligations
- Minimize "Technical Barriers to Trade"
- Maintain consumer protection.
- Facilitate trade
- Enhance the image of Egyptian products and services
- Reduce the cost of imported goods.

----- **End of Section** -----

## **Section 2**

### **Recommendations and Comment**

This section covers a series of comments by the study team and their recommendations to improve and simplify the present system of testing and inspecting of imported and exported products.

#### **2.1. Reduce the number of imported products requiring inspection**

**Comment:** The list of inspected items provided to DEBRA by GOEIC contains 130 line items, 26 of which are food and agriculture products. We have reviewed the remaining 104 items and have the following comments:

The list in general appears to be a document that defines import customs tariffs for groups of products. There are very few individual products, but rather the list contains categories or groups of products.

#### **Examples:**

- ◆ Item 113 – Spare parts, sections and pieces of cars.
- ◆ Item 89 – Engines and their spare parts.
- ◆ Item 101 – Electrical equipment (generators, motors, transformers) and parts thereof.
- ◆ Item 108 – Receiving apparatus (radio and television and parts thereof, recorders (cassette) radio cassette, video (VCR) and TV antenna.

It should be noted that the above items can contain hundreds of individual products. During visits to GOEIC laboratories, the study team revealed that many items not specifically detailed in the above list are being inspected and tested. Based on the vague and general description of the items, one could conceivably inspect and test every part of automotive engine regardless if the part would have any impact on safety, public health or environmental protection.

The list also contains categories or groups of products that do not appear to have any safety, public health or environmental protection implications.

#### **Examples:**

- ◆ Item 45 – Thermos containers (Coleman)
- ◆ Item 85 – Filing cabinets, cards filing cabinets, sorting boxes, drawers for papers, and similar items.
- ◆ Item 118 – Holders prepared for audio – video recording and the magnetic diskettes prepared for recording in computers.
- ◆ Item 119 – Watches & clocks of all types and parts thereof.

#### **Comment re: the above.**

It would be desirable, if not essential, to clarify these apparent inconsistencies at some early date. In addition, a study should be undertaken to see how this list compares to the 320 – 340 mandatory standards issued by EOS.

There are alternative methods for ensuring compliance with mandatory Technical Regulations for imported products. Methods used can differ according to the situation encountered, as shown below.

**Recommendation:**

The following actions are highly recommended, depending on the case.

Item	CASE	Proposed Action
1	Products bearing an internationally recognized product Certification Safety Mark. (I.e.: CE, UL, CSA, etc.)	Be released without any further testing or inspection if accompanied with properly issued and executed Certificates of Compliance, Declaration of Conformity, etc. Spot checks are recommended.
2	Products that have been pre-inspected or tested in country of origin for conformity to an internationally accepted standard by an accredited laboratory.	Be released without any further testing or inspection if accompanied with properly issued and executed Certificates of Compliance, Declaration of Conformity, etc. Spot checks are recommended.
3	Products inspected, tested and certified by an accredited Egyptian private sector inspection body in compliance with mandatory requirements.	If the inspection company is recognized by GOEIC, then the product should be released without any further testing or inspection. The appropriate documentation must accompany the inspected and or tested product.
4	Non-certified, non-inspected products from a non-certified company.	Full inspection and testing should be carried out at the port in accordance with the appropriate standard before releasing the product. The inspection and testing could be carried out by GOEIC or by an accredited third party laboratory.
5	Products that are repeatedly imported into Egypt.	GOEIC should establish a register of imported products that meet Egypt's requirements for products to be freely traded in the Egyptian market. These would include: (a) products whose past history shows that they always comply with the requirements (b) products certified by a recognized body to comply with safety, health, and environmental requirements.*

\* A record history and statistics to be implemented by GOEIC, based on spot checking for a certain % for the imports, to measure the efficiency of the systems, importers, exporters, and suppliers.

**2.2. Product Registration****Comment:**

A significant number of products coming into Egypt are repeatedly imported over many years by the same manufacturers. According to currently applied rules and regulations, every consignment must be tested to verify its conformity to requirements, irrespective of whether the preceding consignments were accepted or rejected, thus repeating the procedures of inspection and testing for the same product each time. This process is seriously redundant, increasing costs and delaying the clearance of products through the port. The 1996 Quality Study carried out by DEPRA also recommended reliance on the past history of products, manufactures, exporters and importers for clearing imported goods.

**Recommendation:**

GOEIC should establish a register of imported products that meet Egypt's requirements for products to be freely traded in the Egyptian market. These are products that conform to: (a) Egyptian standards for those products in Egypt's mandatory list or (b) standards certified by ISO, ANSI, BS, IEC. for other products. Registered products would be directly cleared at the ports without any further inspection or test.

Conditions for registration:

A product can be registered at GOIEC if it satisfies one of the following two conditions:

(1) A product has been repeatedly imported (at least four consignments in the past 2 years). The tests and inspections carried out by GOIEC or a third party accepted by GOIEC show its conformity to the requirements every time. In this case, the product would be registered on the importer's request.

(2) Upon a request from the manufacturer a product can be registered if the following is satisfied:

(a) A type conformity assessment is carried out, to establish that the product satisfies Egypt's requirements.

(b) The quality control procedures adopted by the manufacturer assure the continuity of this conformity.

GOEIC should be satisfied that the above two conditions are fulfilled if one of the following events occur:

- Assessment by GOEIC personnel
- Assessment by a third party accepted by GOEIC
- Acceptance of a type conformity certificate issued by a registrar accepted by GOEIC.
- Periodic inspection should be carried out to assure the continuity of the above two conditions.
- Registered products would be subjected to random spot checks. If a spot check showed non-conformity, the product is deleted from the register.

**2.3. Pre-Shipment Inspection****Comments:**

Inspection companies have long been established worldwide to carry out checks, inspections and tests of goods before shipment on behalf of the importer. This was done to assess their compliance with contracts, banking and importer country requirements. Each of these companies has its own sphere of competence and specialization with respect to different types of goods and producers. They also differ in their extent of coverage of countries. A large number of countries presently rely on their services for quality, safety, financial and economic reasons.

One of the main objectives of the Government of Egypt in the process of facilitating trade and reducing the cost of imported products is to reduce the time required to clear goods at the

ports and to avoid the lost time and cost of having to re-export goods that do not comply with Egyptian requirements.

**Recommendation:**

Establish a system and procedures for the choice, recognition, registration and continual assessment of competent inspection companies. The list of recognized inspection companies should be publicized and made available to all importers and manufacturers.

The basic requirements and qualifications, which must be satisfied by an inspection company to perform pre-inspection for Egypt and be recognized and listed in a GOEIC register, are as follows:

- The laboratories used must be "accredited" for the parameters being tested or inspected by an internationally qualified body in accordance with ISO/IEC Guide 25.
- Ideally, the laboratories should be ISO 9000 certified or registered.
- Preference should be given to ISO 9000 certified or registered companies.
- A private sector, third-party laboratory should be an international corporation, having inspection and testing facilities in major cities around the world.
- Inspection companies should not have any financial interest in the exporting, manufacturing or importing company, nor with the product being inspected.
- Inspection companies should have sound, acceptable inspection procedures and practices.
- The inspection company should be a member of the "International Federation of Inspection Agencies" and comply with the "Code of Practice for Government Mandated Pre-Shipment Inspection Activities".

It is the opinion of the study team that no one testing or inspection laboratory can perform all of the required parameters needed. Therefore we recommend that GOEIC consider using the services of multiple organizations or selecting one primary organization, making them responsible for selecting and assigning other laboratories for additional parameters as required.

**2.4. Product Standards and Regulations**

**Comment:**

Product standards by their nature specify most of the characteristics, features and attributes of a product. They may cover product performance, commercial specifications, quality level, design requirements and parameters, as well as method of manufacture and procedures for testing and inspection.

They are very effective and very beneficial as a language of trade, and as a tool for reducing manufacturing cost. If these standards are harmonized with international standards they become a vehicle of fostering international trade.

However, if they are mandated in full to regulate the entry or flow of products into a market, they can be a hindrance to advancement in scientific and technological development. Moreover, they become a technical barrier to trade.

To solve this problem in an acceptable manner that protects the interests and safety of the population, the international community, through the WTO (TBT) agreement, has reached a consensus that it is sufficient to issue "Technical Regulations," which specify what the product should satisfy in order to protect the safety and health of the population and the environment.

Any regulation that exceeds the minimum level of protection needed for safety, health and environment could be considered a TBT.

The study team selected two standards referenced in the Scope of Work to review their compatibility between Egyptian and International Standards. A comparative study of the requirements of Egyptian standards, EN standards and EU Directives for Gas Cookers and Electric Heaters revealed that the safety requirements for both products are less stringent in ES standards than in EN. ES for Gas Cookers contains some quality elements that do not exist in EN and could be considered barriers to trade, e.g. testing of Zinc parts. Furthermore, the study revealed that establishing conformity to either standard or to EU Directives cannot be achieved without going through a lengthy process, which is usually carried out by a third party, accredited body at the manufacturing site.

**Standards Selected for Comparative Analysis:**

Domestic Cooking Appliances: Egyptian Standard 64-1988 - Domestic Cooking Appliances for use with Liquefied Petroleum Gases at 30cm W.G. pressure of Natural gas at 20 cm W.G. pressure.

International Standard, EN 30 Edition 2 January 1979-Domestic Cooking Appliances Burning Gas.

Electric Heater: Egyptian Standard ES 406 -1992 - Electric Heater, Part 4 methods of measuring performance of household electric room heaters.

International Standard - British Standard EN 60675 -1995 - Household Electric Acting Room Heaters, Methods for measuring performance

In both cases, the European standards are the standards referenced by the EU Directives.

**The comparison for Domestic Cooking Appliances is Summarized in:**

The following table. It is clear, that there is a large difference between the number of tests performed for safety and quality aspects.

The EN 30 Standard contains 20 safety-related tests, the Egyptian Standard contains 10. On the quality side, the Egyptian standard contains 13 quality-related tests, while the EN standard contains 12.

**Comparison of tests carried out as per ES and EN standards and their relation to quality and safety.**

Standard	Quality Tests	Safety Tests	Quality / Safety Tests	Total
EN 30	6	14	6	26
ES	9	6	4	19

It should be noted, in evaluating this comparison that:

1. The EN 30 standard is considered one of the reference standards for EU directives.
2. The EN Standards are established by European Committee for Standardization “CEN”.
3. The ES reference is BS 5386 / 1980.
4. All safety aspects are confirmed by EU States by the issuance of the CE mark.

For additional information adopted to these comparisons, refer to section 9 of this study.

**Recommendations:**

Speed up the process of harmonization of Egyptian standards with International standards. Follow the EU approach of adopting the ISO, IEC and ITU standards whenever they exist for a product and concentrate on products which are not covered by these standards. The process can benefit from EU efforts in this respect by adopting EN standards directly, thus avoiding duplicative effort. A timetable should be developed and followed.

Stop mandating standards that contain non-essential quality requirements and abide by WTO (TBT) recommendations and obligations by issuing Technical Regulations, confined to health, safety, environment, national security, cultural, and geographical aspects. Review and adopt EU directives whenever feasible.

A National body should be formed for determining what products are to be regulated and what Technical Regulations are required for their control.

Recognize internationally accepted safety marks when certified by a recognized, competent body.

**2.5. Establish a National Product Conformity & Consumer Protection Body****Comment:**

The ballast case study presented in this report (Section 10) reveals contradictory test and inspection results between two government bodies. Contradictions like this can hamper trade and should be avoided as much as possible.

To foster the export of Egypt's manufactured products, an internationally recognized body is required to assess and certify their conformity to international standards and technical regulations.

Both GOEIC and EOS have large and overlapping inspection and testing laboratories. There is a duplication of equipment and capability. Neither of these laboratories are accredited or meet the internationally technical competence requirements (ISO/IEC Guide 25), which makes the test results obtained by them unreliable and not credible. For example they lack proper documentation, suitable environmental controls, and in some cases they have inadequate test equipment.

**Recommendations:**

Consider combining the laboratories of GOEIC and EOS to form a single national organization for testing and inspection. This would enhance the system and reduce redundancy.

The objective of this National organization would be to

1. Providing type conformity assessment to Egyptian and international Standards for products manufactured in Egypt. This would give credibility to Egyptian products and establish necessary ground for gaining confidence and international acceptance of Egypt's Industrial products.

2. Working with an internationally recognized product safety mark organization to facilitate a joint, "Product safety Mark" program that will offer both the international body and Egyptian product certification to locally manufactured products and those products that are imported into Egypt on a high volume basis.
3. Providing certificates of conformity to the requirements of international quality and safety marks for domestic and internationally manufactured products.
4. Providing certificates of conformity to Egypt's technical regulations and requirements to domestic and internationally manufactured products.
5. Providing services for carrying out spot checks required by consumer societies and associations and the internal authorities responsible for the quality and safety of the products offered for sale in the Egyptian markets.

This procedure is recommended by the WTO.

The above recommendations require a plan of action as follows:

- 1- Take necessary steps towards the unification of the facilities of GOEIC and EOS and issuing the necessary laws or decrees for the establishment of the National Product Conformity Assessment Labs.
- 2- If this plan cannot be accomplished within a reasonable time, it is recommended that the step be implemented in two phases:

**Phase I:**

Declare GOEIC Labs as the National Product Conformity Assessment labs, and proceed with the remaining steps of the action plan.

**Phase II:**

- 1) Work towards assigning the rest of the national product testing laboratories to this body.
- 2) Set a schedule and implement a plan for preparing the laboratories for compliance with ISO/IEC Guide 25 and ISO 9000.
- 3) Apply for accreditation by an internationally recognized accreditation body working in conjunction with Egyptian National Laboratory Accreditation Bureau. (NLAB). A program is being considered to utilize the services of the U.S. National Institute of Standards and Technology to provide assistance to the Egyptian National Laboratory Accreditation Bureau in this area.
- 4) With the development of a business plan, establish a quality assurance team dedicated to this project to monitor, report and control the progress being made and to insure compliance to the requirements
- 5) Negotiate and conclude Mutual Recognition Agreements with other international bodies. Accreditation will be required before this can be accomplished.

## **2.6. Establish a Quality Assurance Department**

### **Comment**

At the present time, the GOEIC laboratory in Alexandria is in the process of developing a quality assurance manual. The draft version that the study team had a brief chance to review looks promising. This manual should be completed. Having a manual is needed, but it is only one part of a quality system. Adherence to the procedures stated in the manual must be monitored and controlled to insure continual compliance to national standards and regulations.

### **Recommendation:**

A new Quality Assurance Department within GOEIC should be formed to insure continual compliance to the regulations of ISO 9000 and Laboratory Accreditation. Functions would include:

- Maintaining QA manual and procedures
- Setting control charts for maintenance and calibration of test instrumentation.
- Developing and confirming compliance of test procedures for new standards and Technical Regulations.
- Conducting audits of third-party inspection companies.
- Conducting internal audits of manufacturing and marketing entities to insure compliance with quality standards.

----- **End of Section** -----

## **Section 3**

### **Pre-shipment Inspection**

Pre-shipment inspection is a service provided by companies acting on behalf of governments, government agencies or importers. Traditionally the services provided by these companies are:

1. The physical inspection of the goods to be shipped at the factory or warehouse prior to their shipment. That is to ensure that they are of the correct quality and quantity. This may at times include sampling and laboratory analysis.
2. Establishing that the price of the goods, freight and insurance costs are fair market prices. In some cases, the inspection company may be asked to negotiate an acceptable price between the importer and exporter.
3. Reviewing all the invoices, packing lists and shipping documents related to the transaction.

Recently, a number of governments have employed inspection companies, to carry on in their behalf, pre-shipment inspection of imported goods to assure that they satisfy the respective country's safety, health and consumer interests requirements, or to act as a program manager responsible for carrying out procedures that satisfy the country's importation requirements.

Relevant examples of this option for product inspection are the schemes employed by Russia and Saudi Arabia. The schemes adopted by each of them are illustrated in the following paragraphs.

#### **3.1. Russia Scheme: (GOST Program)**

1. **The License Agreement:** The license agreement has been conferred upon an International Inspection Company, for execution by its affiliates by Gosstandart of Russia.
2. **Official Decree:** There is no obligation for any one to have product certification done before arrival to Russia. There is merely the obligation that when consumer products are offered in Russia for sale or for use by the public, these must have been tested and certified, if such products are included in the mandatory list.
3. The objective of the Russian Authorities is to protect health, safety and the property of consumer / user and to protect the environment.

**Means** testing of products in question in accordance with Gosstandart of Russia systems and verification of compliance by inspectors of Gosstandart and other safety authorities in the (Russian) market place.

**Realization Inside Russia.** Some 140 Certification Offices licensed by Gosstandart, are available at most customs clearing points to deal with goods being imported. At the time of importation the customs offices are meant to verify that Certificates of Conformity (COC) are available for all goods on the mandatory list.

Outside Russia. Some principal agents have been accredited, including SGS, DIN-Gost-TUV (Berlin), Mert (Budapest), and Gost-Asia (Singapore).

**Inspection Company Standard of Execution:**

Certification of safety calls for a responsible attitude and application of professional principles under observation of ISO guides 28, 38, 39, and 40.

**Technical and Financial Audit:** Under the license agreement Gosstandart has the right to audit any office of the Inspection Company at any time in respect of all operational and financial aspects concerning issuance of COC.

1. **Liability / Standard General Condition:** Whereas the supplier has responsibility for the product he supplies, the Inspection Company has responsibility of executing all inspection orders professionally and with due care.

2. **Objective of Physical inspection:** The objective of the law, of the regulations and Gosstandart of Russia is that the Inspection Company as its accredited agent verify whether products are safe to life, to property and to the environment.

3. **The Inspection Company / Gost-R Certification = Product Certification:** In its essence it is always the product that is covered by a Certificate of Conformity “COC”. Therefore the wording in a COC should always be product related and not shipment related.

4. **Product Certification = Product Life:** The history of safety of a product as verified by the Inspection Company over a period of time must be documented in the relevant product life.

5. **Identification and Tractability:** for that purpose, the product or its outer packing and the COC must show the manufacturing batch number.

6. **The Inspection Company Responsibilities:** The issue of a certificate of safety, i.e. of a statement that a product complies with safety norms, must at all times be a responsible act based on professional procedures applied by reference to an appropriate and clearly identified standard. Proof that the product has complied with these criteria must be available on file for each certificate issued and for each product covered.

7. **Suppliers Responsibilities:** The supplier (manufacturer, producer, Distributor, etc.) is responsible for the goods he manufactures or supplies. Legal liability may arise whether under contract, legislation or principles of common law.

**Documents to Support the Scheme:**

1. Standard Operating Procedure Manual: this manual is designed by the Inspection Company to explain all procedures of execution and mechanisms of the scheme.
2. List of goods and services subject to mandatory certification.
3. Medical-Biological requirements, Health Standards for food and Processed-Food Ingredient Quality.
4. General requirements for regulatory documents concerning products to be certified
5. General Provisions

## 6. Rules and regulations for carrying out certification under the system

The Inspection Company, being an accredited Certification body, performs standards compliance in accordance with the laws of the importing countries. The certification programs are largely in line with internationally accepted practices and encompass testing and analysis, system and surveillance audit, inspection and evaluation of technical documentation.

To conduct certification the competent authorities in Russia and the other CIS countries have accredited over 30 of the inspection company's laboratories in 24 countries. Accreditation has been achieved as a result of audits by GOST themselves of these facilities and has been granted based on compliance to the European Norm covering quality standards for inspection, testing and certification operations (the EN 45000 series).

This direct vetting and approval from GOST ensures: independence and impartiality, competence and expertise, and the legal and operational separation of the Certification Body and the Accredited Laboratory

### **Benefits of GOST Program**

#### Consumer protection

- Full protection of the consumer and industrial user against unsafe products.
- Inspection company interventions have effectively stopped the importation of many sub-standard and dangerous goods; and they have also led to corrective action by manufacturers to improve products for client countries.

### **Raising the GOST profile**

- Active intervention seen within the client countries as having strong value.
  - Effective and efficient implementation enables program extensions.
- GOST is seen to be active at an international level.

### **Trade facilitation**

- Compulsory product certification can sometimes be seen as a Non Tariff Barrier to Trade (NTB) by organizations such as the WTO.
- By using an experienced and highly reputable certification body, with transparent procedures, this reaction can be minimized.
- By allowing more than one program partner, competition is maintained and user choice and liberalization are demonstrated.
- By allowing pre-shipment certification, goods can be imported with less formality and hence trade can, in fact, be shown to be facilitated whilst national norms are maintained.

### **Increased quality awareness**

- Manufacturers and suppliers become more aware of the quality needs of the GOST countries.
- Products are improved, and improvements in manufacturers' standards are maintained under the constant vigilance of the Inspection Company and GOST.

## **3.2. The Saudi Arabian scheme:**

### **The International Conformity Certification Program (ICCP)**

The Ministry of Commerce (MOC), in cooperation with the Saudi Arabian Standard Organization (SASO) has implemented its ICCP to control the quality and safety of certain regulated products imported into the Saudi Arabia.

Under the ICCP Saudi Arabian Standards, or approved alternatives, are applied to 76 categories of imported products into Saudi Arabia.

- a. Food and agriculture
- b. Electronics and electrical products
- c. Automobiles and related products
- d. Chemical products
- e. Others

Compliance with these standards will result in the issuance of a Certificate of Conformity (COC) prior to shipment.

Exporters of regulated products, with the exception of food, must obtain a COC prior to shipment.

The ICCP benefits all participants, but is of particular value to the Saudi consumer, who is assured of a product free of health or safety hazards. The manufacturer benefits from the demonstration of quality inherent in the registration of his products through the listing program. Both exporters and importers benefit from the streamlined customs process which allows goods to clear more quickly and without risk of rejection.

**The program consists of two related but separate processes:**

### **Listing of Products**

The SASO Listing Program of the ICCP consists of two elements:

#### **Registration and Listing of products.**

##### **1.1 Registration**

The manufacturer or exporter must register regulated products exported to the Saudi Arabia. In the case of Original Equipment Manufacturer products, registration will be accepted from the organization responsible for the product specification.

The manufacturer can self-declare compliance with SASO requirements. The declaration must specify details of the product and the standards with which it complies (i.e. SASO, ISO, IEC....etc.).

##### **1.2 Listing**

Listing of products can be accepted after testing to the standards developed by or approved by SASO, together with factory inspection.

#### **Shipment Certification**

Regulated products imported into Saudi Arabia must be inspected prior to shipment. Inspection may be scheduled by submitting a Request for Certification application to the program country office (The inspection office in country of exportation). The scope of inspection will vary by product category and may include sampling and testing.

It is important that importers make their exporters aware of these requirements which should made a condition of sale. The Request for Certification of Conformity must be submitted far enough in advance to ensure that it is issued prior to the intended shipment date. If a shipment fails to meet the requirements, the exporter will be given full details of the deficiency and an opportunity to take corrective action.

## **Regulated Products**

There is a list of regulated products covered by the ICCP and, in general, the product categories are self-explanatory. Further clarification of the products covered under the program may be obtained from the SASO or the Program Country Office.

## **Program Manager**

SASO has appointed an inspection company as SASO program manager to assist in the implementation and management of the ICCP under the direction and authority of SASO. The Program Manager's responsibilities include co-ordination with the Program manager Country Offices, as well as monitoring the performance of the laboratories used to support the requirements of the program. The program manager is also responsible for ensuring that relevant information is made available to all manufacturers, exporters and importers to ensure that they are fully aware of the requirements of the program. The program manager is committed to resolving any issues or inquires as they arise, and procedure exists to deal efficiently with these. Any concerns should be addressed to the Program manager.

## **Procedures of Product Compliance:**

The essential elements of the program are:

- Regulated Products must demonstrate compliance with Saudi Arabian requirements and approved standards.
- A Certificate of Conformity (COC) must accompany each shipment of Regulated Products.

## **Methods of achieving these requirements vary according to:**

- The nature of the product
- The current level of compliance met by existing product certifications.

Exporters may choose the route most appropriate to their product range and frequency of exports.

## **Options:**

### **1. Pre-shipment Compliance Verification**

This option is suitable for infrequent exporters. It involves the pre-shipment inspection and the pre-shipment testing of products in a consignment identified and prepared for export to Saudi Arabia. Physical inspection of goods is carried out to verify all requirements that may be visually determined. These include, but are not confined to, safety marking, language requirements, instruction manuals, labeling packing, storage, accompanying certificate, etc.

### **2. Registration and pre-shipment inspection:**

This option involves declaration and demonstration by the manufacturer or exporter that these products satisfy Saudi Arabian requirements. Inherent in this process is a commitment to comply where full compliance is not initially demonstrated. In the case of OEM (Original Equipment Manufacturer) Products, application for Registration is acceptable from the organization responsible for the product specification.

Registration provides information to SASO Program Management as to the current level of compliance relative to declared standards and allows an assessment to be made on additional requirements to be met. In most cases, these requirements relate to the aspects of SASO standards that take account of Saudi Arabian specific climatic/geographical conditions, national security requirements and public moral standards.

Through this awareness process, the manufacturer or exporter is informed of the relevant standards and/or steps to be taken in order to meet the specified criteria. Following Registration, only pre-shipment inspection is required for most products. This level of participation, cooperation and commitment leads to a progressively higher level of compliance and is monitored through the use of discrepancy reports resulting from the pre-shipment inspection activities.

In cases where a satisfactory level of compliance has not been demonstrated, limited pre-shipment testing may be necessary in order to obtain a Certificate of Conformity.

Renewal of Registration is provided on an annual basis by re-submission and review of those products required to be registered.

### **3. Type approval licensing:**

The ultimate aim of the Program is to recognize, through a progressive registration process, products which demonstrate full and continued compliance with Saudi Arabian requirements and to allow the importation of these products with a minimum of intervention. Such products qualify for Type Approval status and issuance of a SASO Type Approval License. Manufacturers of unregistered products who choose to apply directly for Type Approval are required to submit their products for pre-assessment to establish the extent of their compliance with Saudi standards. The requirements of Registration must be satisfied during this pre-assessment stage before progressing with Type Approval Licensing procedures.

A major determining factor of compliance assurance maintenance is the evaluation and approval of the manufacturer's quality control system.

SASO licensing procedures closely follow ISO/IEC Guide 28-General Rules for a Model Third Party Certification System for Products. The supplier's declaration of conformity, with respect to tests, quality marks or certification issued by approved internationally accredited Conformity and Type Testing laboratories, including third party certification and notified bodies, are accorded full recognition insofar as they satisfy the relevant elements of the Registration and Type Approval criteria. Type testing will normally be limited to those elements of the Saudi standards not satisfied by the existing certification. Unnecessary duplication is thereby avoided.

#### **Application for Licensing**

A manufacturer must complete an application for licensing for each product or products of which a SASO License is required. This is then forwarded to the nearest SASO Licensing Center with the following information:

1. Technical information of the product referenced in the application.
2. Identification of the laboratory chosen for the conformity and Type testing from the list of SASO Approved Laboratories, or, nomination by the manufacturer of another laboratory for evaluation and approval.

#### **Conformity Testing, Type Evaluation and Approval**

Once the required information has been received by the Regional Licensing Center, the manufacturer can contact the SASO Approved Laboratory noted in the License Application.

At the conclusion of the evaluation by the SASO Approved Laboratory, a Conformity Test and Evaluation Report is issued by the SASO Approved Laboratory.

### **License Issuance Requirements**

The conformity test and evaluation report is then submitted to the SASO Licensing Center for a review to clarify and verify conformity to SASO program requirements.

If satisfactory results are received, Type Approval is confirmed and the License Surveillance Process commences.

The SASO Type Approval License can only be issued if the factories that produce the Type Approved Product are successfully audited.

### **Initial Factory Inspection**

SASO Licensing involves the manufacturer and all applicable manufacturing sites of the product to be licensed. In cases where the applicant is not the manufacturer of the product to be Type approved, cooperation of the manufacturer must be obtained.

### **Surveillance**

ISO Guide 28 requires that a Certifying Body must exercise surveillance of its licensed products to ensure continued compliance to the standard(s). Under the provisions of SASO Licensing this surveillance is comprised of an annual repeat of the factory inspection and limited retest to the Type Approved product(s) to selected provisions of the SASO Program requirements, to ensure continued compliance.

Periodically, samples will be selected from these shipments and from manufacturing locations to allow for testing and continued evaluation. Process related products, where natural variability or the raw materials necessitates closer monitoring and control for quality assurance purposes, are subject to more frequent surveillance, sample selection and testing.

Examples of these are cigarettes, food products, jewelry, cement, perfumes and cosmetics.

### **SASO Regional Licensing Center Surveillance Responsibilities:**

- a- Coordinate the surveillance activities of each manufacturing location.
- b- Require the submittal of inspection documents (Audit Reports) on a periodic basis, in order to review compliance to Program guidelines.
- c- Administer the periodic sample selection and testing of Licensed Products.

Upon completion of the above mentioned evaluation and inspection activities, Payment of appropriate Program fees, and execution of the SASO License Agreement, the manufacturer is awarded a SASO Type Approval License.

Pre-shipment Inspection and issuance of Certificate of Conformity by the SASO Country Office will normally not be required for each consignment of Type Approved Products exported directly by the manufacturer, who may choose to issue his own COC in accordance with the format required by the Program.

A copy of all shopping documents must be provided and be accompanied by the License and COC details for each consignment as early in advance as possible in order to facilitate monitoring and intervention by the SASO Country Office (SCO) in the event of discrepancies or violations.

If all documentation is satisfactory, a COC Identification Number is provided by the SCO. Limited, random, pre-shipment inspections may also be necessary for some products in order to satisfy the assurance of conformity criteria.

## **Shipment Certification Procedures**

The following examples illustrate the steps involved in obtaining a Certificate of Conformity under each of the conditions described in the previous Section:

### **Pre-shipment Compliance Verification – No Registration or Type Approval**

- Exporter contacts the SASO Country Office (SCO) and provides the requested Product shipment details using a Request for Certification Form (RFC)
- The exporter is advised of requirements and, if possible, arranges for the provision of Test data.
- SCO arranges pre-shipment inspection and laboratory testing, if required.
- Test data is submitted to SCO or testing is carried out. Test certificate is submitted to SCO.
- Pre-shipment inspection carried out and report submitted to SCO.
- SCO reviews test and inspection reports and, if satisfactory, issues COC.

### **1. Registration and Pre-shipment Inspection – No Type Approval**

- Following Registration , exporter contacts SCO and provides shipment details using RFC form, together with a copy of Statement of Registration.
- SCO verifies Registration and proceeds to arrange inspection. In some cases, additional testing or provision of test data may be requested.
- Pre-shipment inspection is carried out and report is submitted to SCO.
- SCO reviews test data (if required) and inspection report and, if satisfactory, issues Certificate of Conformity.

### **2. Type Approval Manufacturer**

- For a manufacturer who is also the exporter, following Type Approval and Receipt of SASO Type Approval License, the manufacturer produces COC, submits shipment details together with a copy of the Type Approval License and the COC to the SCO.
- SCO verifies Type Approval License details against shipment Documentation:
  - If satisfactory, SCO assigns and notifies COC identification Number, and manufacturer proceeds with shipment.
  - If discrepancies or violations are found, SCO withholds COC ID Number, Nullifies COC, and notifies SASO and the manufacturer.

### **Exporter (i.e. non-manufacturer)**

- For exporters who are not the manufacturer, the exporter submits a copy of the Type Approval License supplied by the manufacturer, together with shipping details, to the SCO.
- SCO verifies Type Approval License details against shipment documentation.
  - If satisfactory, SCO assigns COC Identification Number, manufacturer or SCO issues COC, and the exporter proceeds with shipment.
  - If discrepancies or violations are found, SCO withholds COC ID Number, nullifies COC, and notifies SASO and other parties involved.
- SCO arranges for limited, random, pre-shipment inspection.

----- End of Section -----

## **Section 4**

### **Product Standards**

The study team discovered that there exists confusion and contradictory understanding of the meaning and the role of standards in business in the Egyptian industrial and business community. The same confusion applies to the terms “voluntary standards” and “mandatory standards.” This section of the report highlights the definition of standards adopted by the WTO (TBT) agreement. The traditional and historic purposes of product standards and why they evolved, and why and how the international community is moving faster toward harmonizing the product standards. An explanation is then given for the purposes and benefits of using product standards voluntarily for manufacturing and trade purposes. The WTO attitude towards mandatory national standards and its recommendations for replacing them by Technical Regulations confined to health, safety and environmental aspects is highlighted.

#### **4.1. WTO Definition of a Product Standard as Adopted:**

“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 labeling requirements as they apply to a product, process or production methods”. (Emphasis added.)

#### **Purposes of Standards:**

Traditionally, standards are the legitimate child of mass production. They were developed to define specific attributes of parts, whereby even if those parts were manufactured independently they would nevertheless come out more-or-less identical; and therefore standards ensure and facilitate the use and compatible performance of such parts in assemblies.

Standards are essential. They simplify our life. With standards, manufacturers may concentrate on fewer designs, thus lowering costs, improving delivery, and in general doing more effective job.

#### **Levels of Standards**

Standards used today are developed at different levels, according to the purpose for their development. Those levels are:

1. Contractual.
2. Company.
3. Association and society.
4. National.
5. Regional.
6. International.

#### **1- Contractual Standards:**

They are the specifications and performance characteristics of a product agreed upon between the buyer and the seller.

## **2- Company Standards:**

They are the set of specifications and procedures developed by a company, whereby products, parts, manufacturing operations, testing and inspection procedures should abide by their requirements.

## **3- Association and Society Standards:**

Much of the work of the company standards program extends beyond the organizational and geographical boundaries of the company itself. Many decisions require cooperation and coordination with other companies. The natural vehicles for such participation are the trade associations and the professional and technical societies. For the mutual benefit of their members and to foster cooperation between them, they developed standards for the products and parts to be manufactured by their factories so that those products and parts can be used interchangeably.

Examples of those associations and societies are ASME, ASTM, NEMA, ...etc. A large number of those standards were then adopted by other manufacturers all over the world, in such a manner that they became accepted worldwide as a means of facilitating trade and reducing the cost of manufacturing goods. Those standards are known as “**Internationally Accepted Standards**”.

## **4- National Standards:**

A centralizing force is essential to coordinate and correlate the standards work of the hundreds of companies, associations and groups in an industrialized country, to prevent duplication of effort, and to bring together all interested parties. For the same reason and in the same ways that companies seek the assistance of the association and society, a vehicle is needed to solve standards problems on a nationwide basis. Therefore national standardization bodies were established to harmonize, integrate and consolidate different standards developed in the country and to coordinate between standards development bodies for the purpose of developing a single national standard for each product.

## **5- Regional Standards:**

Regional standards emerged as an essential requirement to remove technical barriers to trade and therefore to allow the free movement of goods in the markets of member states of a treaty of free trade region.

Instead of having a product to conform to each of the national standards of each member state, they decided to work towards harmonizing their standards, thus creating harmonized standards in key product sectors to replace the many thousands of differing national standards. The goal is to free up the flow of goods services, capital and people throughout the region, by eliminating differing national requirements among member states.

The most well known regional harmonized standards are those of the European Union (EU). The major standards developing organizations in the EU are :

- The European Committee on Standardization (CEN)
- The European Committee for Electrotechnical Standardization (CENELEC)
- European Telecommunications Standards Institute (ETSI).

These three organizations develop standards needed technically to achieve conformity to the EU “**New Approach**” and “**Global Approach**” directives. In the EU market, not all products are “regulated” in the sense that government intervenes to mandate how products are

designed. Many products enjoy free circulation throughout Europe because governments have no requirements, and national voluntary product standards are increasingly giving way to European standards as the means for describing buyer requirements throughout EU.

For regulated products, the EU commission has set out the guidelines for harmonized European-wide standards in a number of directives, commonly known as:

#### **“New Approach Directives”.**

The harmonization of technical standards for regulated products is centered on health and safety aspects of these products, and is intended to produce minimum safety and health levels throughout the union. The harmonized standards of the EU will be an important condition of sale and in some cases, a legal requirement in Europe throughout the 1990's and beyond. The standards will reduce technical barriers to trade. Manufacturers will have to meet only one European-wide standard, rather than making costly changes to a product to meet 15 different national standards.

The harmonization of standards is expected to lead to expanded trade within Europe as well as with other key markets.

**To speed up the harmonization process the EU commission, CEN and CENELEC have stated their intention to adopt and, wherever possible, implement the international standards of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). The EU wants to avoid duplicating efforts and use international standards to meet deadlines for EU standards development. The commission has stated that CEN and CENELEC will develop their own standards only when international standards do not exist and are unlikely to emerge to meet EU needs.**

#### **6- International Standards :**

In an effort to develop a single international standard for each product. The United Nation Organization (UN) has established two standards development bodies.

Those bodies are the International Electrical Committee (IEC) and the International Organization for Standardization (ISO). Nearly all member states of the UN are members of those organizations, and participate through the technical committees in developing their standards.

Although these organizations have been operating for more than forty years, their efforts were only lately recognized. Thanks to the EU commission and the WTO who, in their efforts to remove technical barriers to trade, have stated that all member states of the WTO agreement must adopt the International Standards unless they can justify the use of other standards on a basis of an overriding health, safety, environmental, cultural, ethnical, religious or national security reasons.

## **4.2. Voluntary Product Standards**

### **Purpose of Voluntary Product Standards**

The purpose of these standards is to establish nationally recognized requirements for products and to provide all concerned interests with a basis for common understanding of the characteristics of the products .

### **Role of Standards Development Bodies (SDBs)**

The role of SDBs in the establishment of voluntary product standards is to act as unbiased coordinators in their development, provide editorial assistance in their preparation, supply such assistance and review as is required to assure their technical soundness, and to seek satisfactory adjustment of valid points of disagreement. SDBs also determine compliance with the criteria of established procedures, provide secretarial functions for each committee appointed under the procedures, and publish the standards as public documents.

Producers, distributors, users, consumers, and other interested groups contribute to the establishment of voluntary product standards by initiating and participating in their development, providing technical or other counsel as appropriate, promoting the use of and support for the standards, and assisting in keeping the standards current with respect to advancing technology and marketing practices.

### **Use of Voluntary Product Standards :**

Product standards are used by manufactures and traders voluntarily. Governments do not usually exercise power in the enforcement of their provisions. However, since the standards represent a consensus of all interested groups, their provisions are likely to become established as trade customs. In addition, when a voluntary product standard is made a part of a legal document, such as a sales contract or code, the civil law makes compliance with the standard enforceable.

### **Benefits of Voluntary Product Standards:**

The benefits derived from voluntary product standards are in direct proportion to their general recognition and actual use. Producers and distributors whose products meet the requirements of a voluntary product standards may refer to the standard in advertising and on labels to promote greater public understanding for confidence in their products. At times, purchasers may order products conforming to the requirements of a voluntary product standards.

### **4.3. Mandatory Product Standards**

Countries All over the world used to issue decrees mandating the conformity of some products to their national standards or to abide by specific regulations for various reasons, such as:

1. Safeguard human health or safety.
2. Protection of animal or plant life.
3. Protection of the environment.
4. Protection of national security.
5. Prevention of deceptive practices.
6. To abide by national cultural, ethnical, or religious requirements.
7. Protection of the national economy.
8. Political requirements.
9. As a protectionist measure for their local natural or manufactured products.

Some of these reasons are accepted internationally as legitimate reasons for mandating compliance, namely those mentioned in 1, 2, 3, 4 and 5 above. Some have to be strongly justified in order to be accepted by the international community, namely those mentioned in 6 above.

Standards mandated for reasons no. 7, 8 and 9 listed above are considered by WTO as technical barriers to trade and are therefore unacceptable. Signatories of the WTO agreement are not permitted to mandate any standard for those reasons. To promote better understanding and compliance with the WTO TBT Agreement and identification of what can be considered mandatory and what is considered voluntary, the WTO adopted the following definitions:

**1- Technical Regulation:**

“Document which lays down product characteristics or their related process 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”.

**2- Standard:**

“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 labeling requirements as they apply to a product, process or production methods”.

**4.4. Obligations under the TBT Agreement**

The TBT agreement addresses mainly the technical regulations, because they are the ones which can cause technical barriers to trade.

**Article 2.2 of the TBT agreement states:**

Members shall ensure that technical regulations are not prepared, adopted or applied with a view 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-fulfillment would create. Such legitimate objectives are, inter alia, national security requirements; the prevention of deceptive practices; protection of human health 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.

**Article 2.4 of the same agreement states :**

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 fulfillment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.

**Article 2.6 states :**

With a view toward 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.

**Article 2.7 states :**

Members shall give positive consideration to accepting as equivalent the 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.

**And Article 2.8 states :**

Wherever appropriate, Members shall specify technical regulations based on requirements in terms of performance rather than design or descriptive characteristics.

**4.5. European Union Approach to Eliminating Technical Barriers to Trade**

**A New Attitude Toward the Elimination of Trade Barriers**

The single market is one of the cornerstones of the European Union. This is a geographic area without internal frontiers and where the free movement of goods, people, services and capital inside the European community is ensured. The free movement of goods is covered by Articles 30 to 36 in the 1957 Treaty of Rome that established the European Economic Community.

**Article 30 states:**

Quantitative restrictions on imports and all measures having equivalent effect shall, without prejudice to the following provisions, be prohibited between the Member States.

**Article 36 provides ground for exemption from the obligation contained in Article 30:**

The Provisions of articles 30 to 34 shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on ground of public morality, public policy or public security; the protection of health and life of humans, animals or plants; the protection of national treasures possessing artistic, historic or archeological value; or the protection of industrial and commercial property. Such prohibitions or restrictions shall not, however, constitute a means of arbitrary discrimination or a disguised restriction on trade between Member States.

The Justification by member states for national regulations that created barriers to trade based on Article 36 has led to many legal cases before the European Court of Justice. The “ Cassis de Dijon “ (Case 120/78, judgement of 20-201979) is well known for the far reaching implications of its interpretation of Articles 30 to 36. The case involved an attempt by Germany to restrict French currant liqueur from entering its market.

**The Court of Justice’s decision stated:**

- i) Products legally manufactured or marketed in one country of the Community can in principle freely circulate throughout the Community. Products manufactured in third countries and legally put on the market in one EU country, benefit from the same principle; and*
- ii) Barriers to trade which result from differences between national legislation can only be accepted if there is an overriding health, safety or environmental reason to prevent such trade circulation, and no alternative exists that would create less barriers to trade. Even then the regulations shall satisfy the requirement that there shall be causal relationship between the measure and its objective, and the regulation shall be “proportional“ to the objective pursued.*

#### **4.6. A New Approach to Technical Harmonization**

The goal of the European Union’s standardization program under the “New Approach” is to streamline technical harmonization and the development of standards for certain product groups. The program is called the “**New Approach**” because it differs significantly from the way European standards were drafted in the past. Under the “Old Approach,” directives for the harmonization of standards by the member states contained such a high degree of detail on the technical specifications of products that it sometimes required 10 to 15 years to develop a standard. This harmonization process was so time-consuming and tedious that it allowed the member states to introduce national regulations and standards at a greater pace than the European Commission could handle, with an ever-increasing backlog of harmonization work.

Under the New Approach, directives are limited to essential safety or other performance requirements in the general public interest. The technical details of how to meet these requirements are left to manufacturers who self-certify products, the three regional European standards organizations, CEN, CENELEC, ETSI, and government-appointed product certification bodies. The EU Commission gives mandates to these standards organizations to develop technical standards that are consistent with the essential safety and performance requirements of EU directives.

Products that meet the essential technical standards outlined by CEN, CENELEC and ETSI are presumed to conform to the requirements of EU directives and allowed to circulate freely within the European Union.

As a result of the new approach, a product manufactured in conformity with EU legislation in one member state will be guaranteed automatic access to the markets of all the other member state. Manufacturers who comply with health and safety requirements in the New Approach Directives may affix the “CE Mark.” The mark signifies that a product meets essential conformity assessment requirements and guarantees its legal access to all of the markets in the member states of the European Union.

It is important to note that the “New Approach “ deals with large families of products— machinery, gas appliances, pressure equipment, toys, and construction products—or “horizontal “ risks such as those addressed in the EU’s Electromagnetic Compatibility Directive, rather than being product-based as under the old approach. Some products may be governed by more than one directive because different risks may be dealt with under separate directives. The manufacturer is responsible for ensuring the product meets the requirements for all applicable New Approach Directives.

----- **End of Section** -----

## **Section 5**

### **Egyptian Government Organizations Involved in Standards**

The Government of Egypt has initiated a strategic program of economic reform and reconstruction aimed at improving the efficiency of Egyptian industry and the export potential of its products. The program is driven by the need to improve the overall performance of the Egyptian economy. The core of this program is the target of improving the quality of Egyptian products and their competitive potential in global markets. This requires among other things, a Government commitment to upgrade all aspects of the Egyptian national standards/quality control system to meet internationally accepted criteria and to achieve international recognition and acceptance.

The national standards/quality control system has four major elements:

- Metrology and traceability,
- Standards and procedures
- Testing and inspection of products,
- Certification and Accreditation

At present, there are three main Egyptian government organizations involved in developing, setting, and enforcement of standards and related issues that impact international trade, the import and export of manufactured products. These include;

- The Egyptian Organization for Standards and Quality Control (EOS), Ministry of Industry
- The General Organization for Export and Import Control (GOEIC)  
Ministry of Trade and Supply
- The National Institute for Standards (NIS), Ministry of Research and Higher Education

There are also other government departments that contribute and play a role in the implementation and enforcement of standards as they relate to trade, notably in the Ministries of Health and Agriculture.

In addition, these groups are directly involved in the testing, inspection, certification and conformity assessment of imported and exported products. EOS and NIS also play an important part in setting and enforcing standards for locally manufactured products for domestic use as well as in obtaining international mutual recognition of the Egyptian standards system.

The Egyptian government has recognized the importance of standards and has taken major steps to improve the quality of national standards and to promote industry awareness of the importance of standards, calibration, quality, accreditation, and the impact they have on international trade and the national economy. One measure of success of this is the increasing demand for ISO 9000 Certification in Egypt. In 1995, there were only 25 companies certified to ISO 9000. In 1996, there were 120 companies. At present there are more than 200 companies that have been certified to ISO 9000 in Egypt. The demand continues to grow. Other achievements include the formation and establishment of the Egyptian National Accreditation Council (EGAC) and the National Laboratory Accreditation Bureau (NLAB)

This section of the report will address technical issues concerning the capabilities of the organizations listed above and their ability to carry out their functions as related to international trade.

### **5.1. The National Institute for Standards (NIS)**

NIS is Egypt's primary standards laboratory (Class A). The principal functions of the organization include:

- Maintain the National primary standards of physical quantities based on the international system of measurement units.
- Provide traceability of measurement standards to industry.
- Provide calibration services in support of industry needs.
- Provide technical leadership through sharing of knowledge with other government organizations and industry in the area of measurement, testing, calibration, accreditation, and consultation through the Total Quality Constancy Unit and other departments.
- Provide Laboratory Accreditation services.

Over the past two years, NIS has taken steps to improve the condition of the laboratory facilities and measurement capabilities with the addition of new instrument standards and test equipment. Institute personnel have participated in international workshops to further the development of new measurement techniques and procedures.

An example of this is the Bilateral Workshop on Metrology, Standards and Conformity Assessment, held in Alexandria, Egypt, in June 1996. The NIS co-sponsored phase one of the Workshop for Standards with the National Institute of Standards and Technology ( NIST), USA. This workshop was part of the US-Egyptian Partnership for Economic Growth and Development signed by President Murbarak and U.S. Vice President Al Gore and the Memorandum of Understanding between NIS and NIST. The workshop attracted 85 Egyptian government and industries leaders.

Phase 2 included the first U.S. (NIST) and Egyptian (NIS) inter-laboratory comparison in electrical measurements between the two national laboratories and Egyptian industry. This project was coordinated between a US metrology team and Egyptian National Laboratory Accreditation Bureau of NIS. NLAB provided local coordination and management. Egypt has participated in other international measurement comparisons, but this was the first and only comparison between Egyptian industry and two national laboratories. US instrument manufactures supplied the artifact standards for this program free of charge.

NIS has recently entered a formal MOU with the National Physical Laboratory of the State of Israel, the National Metrology Institute of the Republic of Turkey, and the National Metrology Laboratory, CSIR, of South Africa.

The scope and objectives of the MOU is to provide a mechanism for scientific and technical cooperation in measurement sciences. Each laboratory agreed to provide a framework for the exchange of knowledge in metrology and measurement science in the fields of physics, chemistry and engineering.

Organizations within NIS, specifically the NLAB and the Total Quality Constancy Unit are providing a most valuable service to other government organizations and industry.



It should be noted that NLAB in two short years has implemented a program that will shortly be in a position to accredit Egyptian testing and calibration laboratories in accordance with internationally accepted guidelines and procedures. This achievement will enhance the quality of the Egyptian standards/quality control system and start to establish international recognition. Laboratory accreditation is a major part of achieving WTO (TBT) compliance.

At present, there are NO accredited laboratories in Egypt. NLAB has received applications from 22 Egyptian companies inquiring about becoming accredited.

As part out the DEPRA project, the team met with management of the “Center for Quality Assurance” located in Cairo. This organization was established as part of the U.S. Egyptian Partnership for Economic Growth and is funded by the USAID with the Ministry of International Cooperation.

This organization works closely with NIS and NLAB in assisting Egyptian industry with the preparation of achieving ISO 9000 certification and Laboratory Accreditation. USAID provides up to 70% of the preparation cost to Egyptian industry for obtaining certification.

If NIS continues to increase and enhance its capabilities, it is the opinion of the writer that NIS is moving forward to achieve the national, regional and international recognition that it desires. This will be a major achievement for Egypt.

## **5.2. Egyptian Organization for Standardization and Quality Control (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 has about 600 staff members including a number of laboratory analysts. Besides offices in the MOI, there is a large laboratory in suburban Cairo. (Class B)

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 about 340 such items. EOS standards may also be made mandatory by decrees of other ministers. However, as a practical matter, standards and elements of the standards are effectively rendered mandatory through other channels. Through a series of mandatory technical specifications and regulations

embodied in ministerial decrees from not just MOI, but from MOTS, MOA, and MOH as well, product coverage by mandatory standards has been extended to a vast array of goods. These mandatory standards and specifications, furthermore, go well beyond conventional norms of consumer protection and, when enforced, are the source of considerable unnecessary obstacles to trade.

The DEPRA team inquired as to whether EOS accepts internationally recognized “product Safety Marks” such as CE, UL, etc., without requiring additional inspection and testing of products bearing such marks when imported into Egypt.

The response was no, unless there was mutual recognition by UL and/or CE of the Egyptian Safety and Conformity Mark. This will be a major hurdle to overcome. If Egypt used the same or similar standards and requirements for obtaining the use of these marks, then Egypt could achieve mutual recognition. Until this occurs there will be no mutual recognition, and this will continue to be an obstacle to trade.

It should be noted that when the DEPRA team inquired as to whether there was any technical reason or justification for this hard line, the answer was no.

**There can only be mutual recognition agreements between international standardizing bodies when both parties utilize the same standards and when conformity assessment is verified by a laboratory which is recognized by an international accreditation body.**

### **5.3. General Organization for Import and Export Control (GOIEC)**

GOIEC, within the Ministry of Supply and Foreign Trade, has responsibility for testing imported and exported products to ensure they meet the stipulations of EOS standards. GOIEC 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.

GOIEC maintains 22 offices/laboratories, 11 offices and labs located at shipping/air ports for import, and 11 located throughout the country for export inspection. For all programs, GOIEC maintains a staff of 3000, about equally divided between import and export.

The primary role of GOEIC is that of an enforcement agency which has responsibility for inspecting and testing imported goods to verify compliance to Egyptian regulations. In reality, GOEIC has assumed the role of “Protector” of Egyptian consumers. Much of what is inspected and tested by the GOEIC laboratories is related to the quality aspects of the imported product. This situation is further complicated by the fact that many Egyptian standards contain unnecessary quality related requirements.

The study team believes that this agency’s role should be modified to accommodate the changing needs of international trade.

----- End of Section -----

## **Section 6**

# **Product Certification and Product Safety Marks**

## **Product Certification & Product Safety Marks**

### **6.1. Introduction**

Product certification plays a major role in consumer safety and international trade. Before 1990, product certification was fundamentally concerned with consumer safety. Products that display an authorized certification mark label indicated that they have passed certain safety, health and environmental standards. Officials and consumers considered the mark a sign that the product was safe to use and that the interests of the consumer are protected.

In recent years most countries have mandated some of their own adopted standards, and therefore compliance with those standards becomes a condition for the entry of a product into their market. This effects manufacturers and international trade. In order to facilitate trade and the movement of goods in the single market of the EU countries, the EU commission issued a set of directives, defining the essential requirement which have to be met by products that could endanger the safety or health of the consumers irrespective of the standard adopted for the manufacture of those products. The EU issued also Directive stating that products that comply to the relevant EU Directives can bear a CE Mark.

The regulated products are those products which can adversely affect the safety, health, or interests of the community. A list of those products are issued by the EU commission and published in the official EU journal. EU directives mandate that companies earn a CE Mark for their products that fall on the list of regulated products, or face having their products barred from European sale. Several other nations also now require conformance to EU product safety, health and environment legal mandates.

Acceptance of a single standard has already reduced the number of local inspections and eliminated redundant testing of products as they move from one nation to another within the EU.

When a product has met the certification and conformity assessment requirements as determined by an internationally recognized or accredited testing laboratory, the appropriate certification “Mark” may be affixed to the product.

### **What a Product Safety Mark Is**

- Manufacturers apply and submit products for “Product Safety Mark” testing on a voluntary basis.
- The “Mark” indicates that the manufacturer has undergone all assessment procedures required for the product.
- Products that meet the essential technical requirements outlined by the appropriate certifying body are presumed to conform to the requirements of the defined directives.
- It indicates conformity to legal requirements.

### **What a Product Safety Mark is Not**

- It is not intended to imply quality

## General Requirements

In order to obtain a product safety mark, the manufacturer is required to undergo a comprehensive product-testing program. Samples of the product are tested to national or internationally recognized safety standards and must be reasonably free from foreseeable risk of fire, electric shock and related hazards. Once a product earns a product safety mark and is introduced to the market, the certification body periodically and unannounced may visit each manufacturer's production facility to counter check that the products continue to meet "Product Safety Mark" requirements. Even after the initial product, evaluation the certification body will check samples of the product repeatedly.

### Declaration of Conformity

A "product Certification Mark" is not intended to include detailed technical information on the product, but there must be enough information to enable the inspector to trace the product back to the manufacturer or the authorized representative established in the exporting country. This detailed information should appear not next to the safety mark, but rather on the declaration (certificate) of conformity. This is sometimes known as the manufacturer's declaration, which the manufacturer or authorized representative or importer must be able to provide at any time, along with the product's technical file.

### The declaration of conformity must contain at a minimum the following:

- Product identification – model, serial number, etc.
- Standards used to verify compliance
- Name of independent testing laboratory authorized to perform conformity assessment.
- Signature of manufacturer or authorized representative
- The manufacturer's name and address.

Note: For CE Mark, the European Directives complied with, must be listed.

Examples: Internationally Recognized Product Certification Marks

Canada: "CSA" – Canadian Standards Association

Europe: "CE" - French for "Conformite Europeene"

Japan: "JIS" – Japanese Industrial Standards Marking System

United States: "UL" - Underwriters Laboratories"

## 6.2. Product Safety Mark Organizations and Systems



**6.2.1. Canada - The Canadian Standards Association (CSA)** is Canada's largest standards development and certification organization. An independent, non-government, not for profit association with headquarters in Toronto, CSA operates through a network of offices and partners across North America and around the world. Established in 1919, CSA has long proven its leadership on matters of safety, performance and quality through the development of consensus standards as well as certification testing and registration services.

The CSA certification mark is recognized around the world as a symbol of safety and integrity. Now appearing on more than one billion products sold annually, the CSA mark indicates that a product or system has been evaluated under a formal system which includes examination, testing and inspection, and that it complies with applicable standards.



**6.2.2. United States – Underwriters Laboratories** is the primary North American product safety organization and the leading third party certification organization in the United States and the largest in North America. As a not for profit, non-

government product safety testing and certification organization, UL has been evaluating products in the interest of public safety since 1894. UL provides a full range of conformity and quality assessment services to manufacturers and other authorities, and works to strengthen safety systems worldwide.

UL is a National Certification Body (NCB) in the CB Scheme of the International Electrotechnical Commission's System for Conformity Testing to Standards for Safety of Electrical Equipment (IECEE). This means that UL can assist in obtaining national certification in over 30 countries throughout the world. Under the CB Scheme UL can evaluate the laboratories information technology and business equipment to IEC 950, Medical devices to IEC 601, Laboratory and measuring equipment to IEC 1010 and issue a CB Test Certificate and CB Test Report that can be used to obtain national certifications in participating countries.

**The UL Mark** – There are several types of UL Marks, each with a specific meaning and significance. Listed below is a sample of widely used UL Marks. A complete listing can be found in Appendix A of this report.

#### UL – Listed

The most common mark, the UL Listed Mark on a product means that representative samples of the product have been tested and evaluated to nationally recognized safety standards with regard to fire, electrical shock and related safety hazards.

#### International EMC-Mark

The International “emc-Mark” appears on products meeting the electromagnetic compatibility requirements of Europe, the United States, Japan, Australia, or any combination of the four. The types of products that are subject to EMC testing include medical and dental equipment, computers, microwave ovens, televisions, radios, transmitters and radio controlled equipment.

#### **Protection and Control of the UL Mark**

UL's follow-up services are an integral part of their certification programs. A comprehensive follow-up system is essential for any certification program to work. The purpose of UL's follow-up inspections is to check products during and after production, and to audit the manufacturing process for continued compliance with UL requirements.

UL field representatives make unannounced visits to factories where UL Listed, Classified or Recognized products are manufactured. The frequency of these inspections is determined by the product type, production schedules and volume of production.

- Inspections are conducted from a minimum of four visits a year to several visits a week for different types of products.
- These visits include a review of manufactures' production controls and record keeping, witnessing of production tests, and a detailed sample inspection of the completed product as well as the components.
- Sometimes, samples are selected from production and sent to one of UL's laboratories for countercheck testing.
- In other cases, market sampling is employed.

Formal agreements with manufacturers clearly define the applicable conditions for use of UL marks. UL investigates all reports of misuse or unauthorized use of UL marks, and take

appropriate corrective action. UL has nearly 200 Inspection Centers around the globe to provide local follow-up services.

Note: This is a major asset to the Government of Egypt, and specifically GOEIC. UL will investigate allegations of fraud at their expense and issue their findings. If UL determines that there was misuse and or fraud, Egypt could then take the appropriate action against the importer. This represents a cost savings to Egypt.

**CE** **6.2.3. The EU - European Union – The CE-mark** is the official marking required by the European Community for a set of products designated as regulated that will be sold, or put into service for the first time, anywhere in the European Community. It proves to the buyer or user that the product fulfills all essential safety and environmental requirements as they are defined in the European Directives. The CE marking directive (93/68/EEC) was adopted on July 22, 1993.

In return for fulfilling the CE-markings requirements, the manufacturer or its agents gets the opportunity to cover the entire European market using only one approval procedure for the topics covered in the various directives. The member states of the EC cannot refuse any product that has been CE-marked.

This is the main tool employed in harmonizing European product standards. The CE-Mark is an important sales factor for any company entering the European market. Ideally, harmonization of standards is expected to reduce Technical Barriers to Trade (TBT) as manufacturers worldwide are required to meet a single standard, rather than make costly changes to a product to meet a variety of different national standards. The harmonization of standards is also expected to boost trade within the EU and with major trading partners outside Europe.

The attachment of the CE-Mark on a product **MUST** be founded on a Compliance Statement of the manufacturer or importer. A CE-Declaration of Conformity is required for any apparatus put into service in any member state, whether imported into the EU or manufactured in the EU. The declaration states that the apparatus complies with the requirements of the directives as stated on the declaration, following the standards as indicated. The declaration's primary function is to put the legal responsibility for conformity to the one who should bear it. An apparatus that has been CE-marked, without any declaration available, makes the manufacturer or importer liable to more severe punishment than when he declares without fulfilling the technical requirements. Therefore, a declaration is absolutely necessary. A sample of a Declaration of Conformity can be found in Appendix A.

**6.2.4. Japan – Japanese Industrial Standards – JIS:** In Japan, industrial standardization is promoted at the national, industry association, and company levels. Japanese Industrial Standards are voluntary national standards for industrial and mineral products. Various industry associations also establish voluntary standards for their specific needs. Many companies have a set of company standards (operation manuals, etc.) some of which were adopted from JIS and or industry association standards.

One means of promoting industrial standardization is the JIS marking system. The JIS marking system is a voluntary certification system. Some 900 items with JIS product standards are designated for JIS marking. Factories manufacturing products that satisfy JIS are permitted to affix the JIS mark on their products if their company standards and practices of quality control

are judged by the relevant minister to guarantee continuous production of products satisfying JIS.

The aims of JIS and the JIS marking system are to improve the quality of products, rationalize production, ensure fair and simplified trade, etc., through the establishment and dissemination of appropriate and rational standards. Some 8,200 JIS have been established for these purposes, and some 16,000 permissions (or approvals in the case of foreign factories) have been given to affix the JIS mark on their products.

In 1985, the government decided to internationalize Japan's economy and society (Action Program for Improved Market Access) to maintain the free trade system. One of the most important areas of the Action Program was related to standards and certification. The Action Program included ensuring transparency in the standards formulation process, and accepting foreign test data as much as possible under the existing certification systems. To facilitate exports to Japan, and in line with the 6<sup>th</sup> Long – Range Plan for the Promotion of Industrial Standardization, it was decided that foreign test data could be used for approving foreign factories under the JIS marking system.

### **Summary**

Third party product safety certification is important. An independent, technically expert organization that doesn't have a financial interest in the product's ultimate profitability is needed to determine whether reasonably foreseeable risks associated with the product's intended use have been eliminated or minimized.

----- **End of Section** -----

## **Section 7**

### **Laboratory Accreditation**

#### **7.1. What is laboratory Accreditation?**

Laboratory Accreditation provides a means of determining the competence of laboratories to perform specific types of testing, measurement and calibration. It enables people who want a product, material or instrument to be checked or calibrated to find a reliable testing or calibration service able to meet their needs. It also allows a laboratory to determine whether it is performing its work correctly and to appropriate standards.

Manufacturing organizations may also use laboratory accreditation to ensure the testing of their products by their own in-house laboratories is being done correctly. Most importantly, laboratory accreditation provides formal recognition to competent laboratories, thus providing a ready means for customer to access reliable testing and calibration services.

Under the World Trade Organization and provisions of the agreement on Technical Barriers to Trade, conformity assessment practitioners are required to create an efficient, transparent, fair and harmonized means for the international acceptance of trade goods. The laboratory accreditation community has been cited as a critical element in a worldwide system need to facilitate trade.

#### **7.2. Laboratory Accreditation Assists International Trade & Development**

Many countries around the world have one or more organizations responsible for the accreditation of their nation's laboratories. Most of these accreditation bodies have now adopted an international guide, called ISO/IEC Guide 25, as the basis for the accreditation of their country's testing and calibration laboratories.

Adoption of this international guide has helped countries adopt a uniform approach to determining laboratory competence. This uniform approach allows countries with similar accreditation systems to establish agreements between themselves, based on mutual evaluation and acceptance of each other's accreditation systems.

Such international agreements are called Mutual Recognition Agreements (MRA), are crucial in enabling test data to be accepted between these countries. In effect, each partner in such an agreement recognizes the other partner's accredited laboratories as if they themselves had undertaken the accreditation of the other partner's laboratories. This developing system of international mutual recognition agreements between accreditation bodies has enabled accredited laboratories to achieve a form of international recognition, and allowed test data accompanying exported goods to be more readily accepted on a global basis.

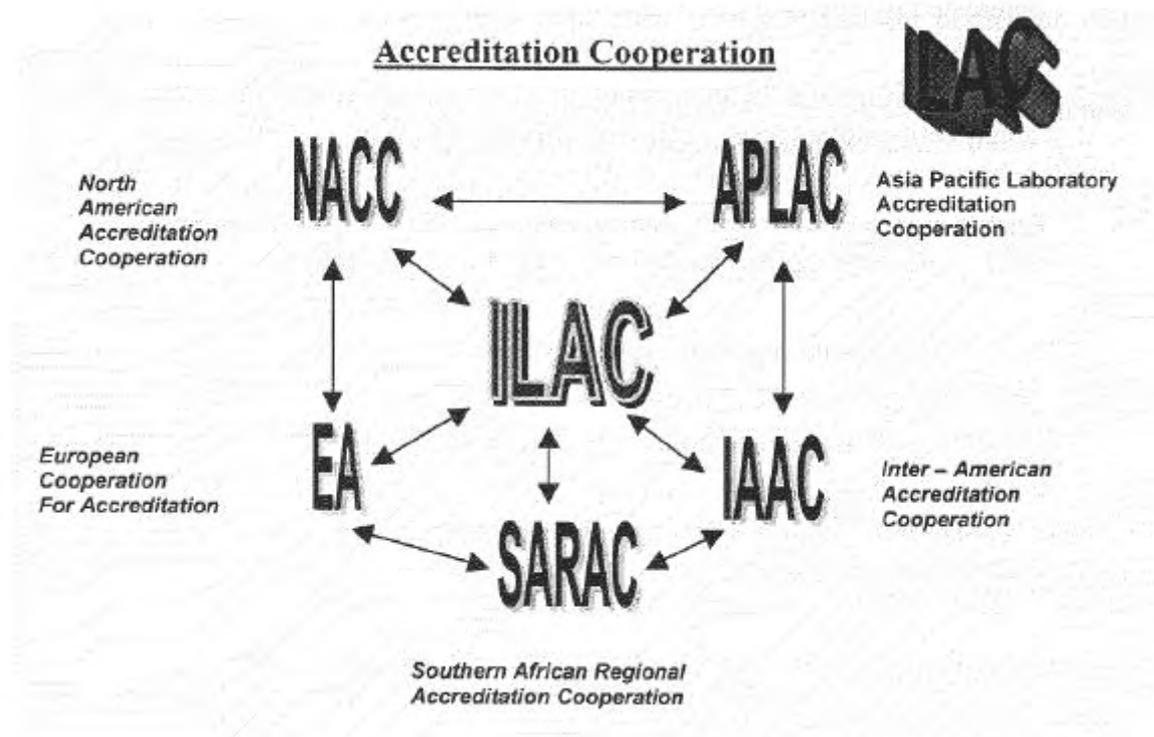
This effectively reduces cost for both the manufacturer and the importer, as it reduces or eliminates the need for products to be re-tested in the imported country. Countries without viable accreditation systems can also seek to have their laboratories accredited by established accreditation bodies, so that their test data and associated goods can be accepted on foreign markets. These countries can also endeavor to develop their own accreditation system based on the structure and experience of these systems in other countries.

### **7.3. Laboratory Accrediting Bodies and International Cooperation**

The International Laboratory Accreditation Cooperation (ILAC) represents international cooperation between the various laboratory accreditation schemes operated through the world. Founded in 1997, ILAC was formalized as a cooperation in 1996 when 44 national bodies signed a Memorandum of Understanding (MOU) in Amsterdam. This MOU provides the basis for the further development of the cooperation and the eventual establishment of a multilateral recognition agreement between ILAC member bodies. Such an agreement will further enhance and facilitate the international acceptance of test data and the elimination of Technical Barriers to Trade (TBT). As part of its global approach, ILAC also provides advice and assistance to countries that are in the process of developing their own system. These developing systems are able to participate in ILAC as associate members, and access the resources of ILAC's more established members.

In conjunction with ILAC, specific regions have also established their own accreditation co-operations, notably EA in Europe, APLAC in the Asia-Pacific and NACLA in North America.

ILAC is the world's principle international forum for the development of laboratory accreditation practices and procedures, the promotion of laboratory accreditation as a trade tool, the assistance of developing accreditation systems and the recognition of competent test and calibration facilities throughout the world.



### **7.4. Regional Cooperation Bodies**

#### **Inter-American Accreditation Cooperation**

*Member Countries:* Argentina, Brazil, Chile, Colombia, Peru, United States, Venezuela.

#### **North American Accreditation Cooperation**

*Member Countries:* Canada, Mexico, United States

### **European Cooperation for Accreditation**

*Member Countries:* Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

### **Southern Africa Regional Cooperation**

*Member Countries:* Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe.

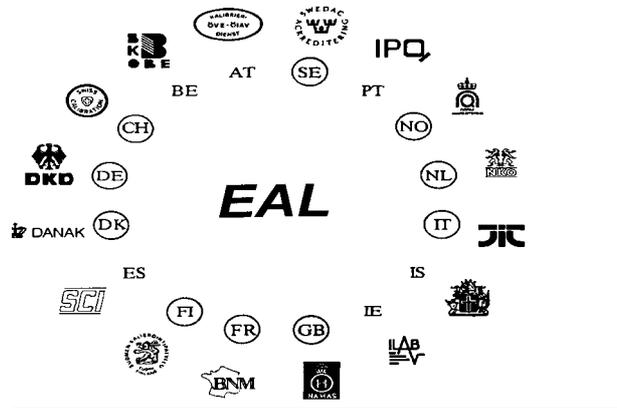
### **Asia Pacific Laboratory Accreditation Cooperation**

*Member Countries:* Australia, Bangladesh, Peoples Republic of China, Fiji, Hong Kong, India, Indonesia, Japan, Kiribati, Korea, Malaysia, Maldives, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Singapore, Sri Lanka, Taiwan, Thailand, United States, and Vietnam.

### **Objectives of Regional Accreditation Cooperations**

1. Provide a forum for exchange of information and to promote discussion between laboratory accreditation bodies and among organizations that are interested in laboratory accreditation.
2. Facilitate collaboration and cooperation between members, including seminars and meetings of experts, exchange of personnel, etc;
3. Enable members to provide assistance and exchange experts in training, proficiency testing, harmonization of criteria and practices;
4. Publish papers and reports on related subjects
5. Develop guidance documents on related subjects;
6. Organize inter-laboratory comparisons between laboratories in the region and between other regions;
7. Promote Mutual Recognition Arrangements between members;
8. Promote international acceptance of test reports;
9. Cooperate with other national, regional and international bodies with similar or complementary objectives.

## **Brief Description of Regional Accreditation Cooperation's** **Europe – EA – European Cooperation for Accreditation**



Until now, the branches of European national accreditation bodies have been handled separately by the European Accreditation of Certification (EAC) and the European Cooperation for Accreditation (EAL) concerned with certification bodies or with laboratories.

These organizations have joined to form the European Accreditation (EA) which now covers all European conformity assessment activities. This includes the following:

- Testing and Calibration
- Inspection
- Certification of Management Systems
- Certification of Products
- Certification of Personnel
- Environmental Verification under the European Eco-Management and Audit Scheme (EMAS) regulation.

Members of EA are the nationally recognized accreditation bodies of the member countries of the European Union and EFTA. Associate Membership is open to nationally recognized accreditation bodies in the European geographical area who can demonstrate that they operate an accreditation system compatible with EN 45003 or ISO/IEC Guide 58 and Guide 25.

### **Asia Pacific – APLAC – Asia Pacific Laboratory Accreditation Cooperation**

APLAC was formally established under a Memorandum of Understanding in 1995. Membership is open to laboratory and inspection body accreditation bodies in the general Asia - Pacific region.

There are two classes of membership:

1. Full members are national and regional laboratory or inspection body accreditation bodies as designated by their governments or otherwise recognized as well established practitioners by APLAC.

2. Associate members are organizations expressing an interest in laboratory or inspection body accreditation and wishing to participate in APLAC activities.

In recent months, APLAC and the United States National Voluntary Laboratory Accreditation Program with the American Association for Laboratory Accreditation have entered a Mutual Recognition Arrangement to recognize each other's accredited laboratories.

### **United States – Accreditation Program**

The United States is in the process of restructuring its accreditation system. The two major accreditation bodies are the National Voluntary Laboratory Accreditation Program (NVLAP) and the American Association for Laboratory Accreditation. (A<sup>2</sup>LA)

A<sup>2</sup>LA is a private sector not for profit organization and works closely with NVLAP and other international accreditation bodies.

### **NVLAP**

The National Institute of Standards and Technology (NIST) administers the National Voluntary Laboratory Accreditation Program (NVLAP). NVLAP is comprised of a series of laboratory accreditation programs, which are established on the basis of requests and demonstrated need. Each LAP includes specific calibration and or test standards and relate methods and protocols assembled to satisfy the unique needs for accreditation in the field of testing and calibration. NVLAP accredits public and private laboratories based on evaluation of their technical qualifications and competence to carry out specific calibrations and or test.

Accreditation criteria encompass the requirements of ISO/IEC Guide 25 and the relevant requirements of ISO 9002. Accreditation is granted following successful completion of a process which includes submission of an application and payment of fees by the laboratory, an on-site assessment, resolution of any deficiencies identified during the on-site assessment, participation in proficiency testing, and technical evaluation. The accreditation is formalized through issuance of a Certificate of Accreditation and Scope of Accreditation.

### **7.5. The National Council for Laboratory Accreditation Cooperation (NACLA)**

NACLA is made up of those in the United States who actively support development of a system for recognizing the competence of testing and calibration laboratories, and worldwide acceptance of their test and calibration reports. NACLA is an umbrella organization whose mission is to develop and administer common accreditation procedures that can be accepted by all NACLA parties. To provide coordination and focus for laboratory accreditation programs in the United States and to serve national and international needs in laboratory accreditation.

The NACLA vision is one of a U.S. laboratory accreditation system that includes a cooperative relationship among the public and private sectors and achieve the following:

- For the testing laboratory, a single accreditation in a given field of testing, with worldwide recognition.
- For the user, a test performed once, with worldwide acceptance.
- Accreditation based on uniform criteria is intended to ensure that a laboratory is qualified to provide data of consistent quality.

NACLA has the support of US industry and the endorsement of the US government

### **7.6. Requirements for Achieving Accreditation**

Achieving laboratory accreditation is a lengthy and costly process. Typical time for a well-established laboratory to become accredited would be between 1-2 years. A well-established laboratory would be one whose organization is ISO 9000 certified. Cost charged by the accrediting body for the actual accreditation would be approximately \$35,000.00 US, for 2-3 parameters. Typically, costs are closer to \$60,000.00. In addition to this, there is the preparation cost, which could be similar. There is also an annual cost to maintain accreditation. This includes inspection by the accrediting body. For a laboratory that does not have ISO 9000 certification and or a formal quality system in place, the cost could be 2-3 times higher. In this case, the time to achieve accreditation could be 3-4 years, depending on the preparation time required.

Listed below are some of the requirements for achieving laboratory accreditation:

- A well documented quality system
- Adequate laboratory facilities and equipment
- Traceability to National Standards with uncertainty levels specified
- Well defined procedures and techniques
- Proficiency testing to verify competence and capabilities of laboratory staff
- Specification of uncertainties by parameter
- Payment of considerable fees
- Annual renewal of accreditation

### **7.7. Benefits of Laboratory Accreditation**

- Major component of achieving compliance to the WTO (TBT) obligations.
- Establishing mutual recognition of standards and test data to facilitate trade
- Enhance the quality of nationally produced products
- Improve the international competitive position of nationally produced products
- Increase exports
- Facilitate a pre-inspection and pre-certification system
- Achieve international recognition for adopting an international accepted system

----- **End of Section** -----

## Section 8

### Comparison of Egyptian Standards (ES)

#### 8.1. Comparison of ES Standards with European Union “EU Directives”

A) ES Standards 64 – 1988 Domestic cooking appliances for use with liquefied petroleum gases at 30 cm W.G. pressure or natural gas at 20 cm W.G. pressure (Ref. BS 5386 / 1988),  
**and**

B) EN 30 Edition 2 Jan. 1979. “Domestic cooking appliances burning gas”

**Purpose of the study:** checking the compliance limits of the Egyptian standards and the European standards in order to check the steps required for adopting international standards instead of ES to eliminate TBT and facilitate trade.

#### **Structure of the Standards**

Sr.	EN Sections	ES Sections
1	Scope	Scope
4	Constructional	Constructional
5	Performance	Performance
6	Test methods	Test methods
7	Marking and instructions	Marking and instructions

#### Scope:

EN	ES
This standard defines the constructional and performance characteristics, the test methods and marking of the domestic cooking appliances burning gas for: Independent hotplates, table cookers, ovens, grills and cookers.	This standard defines the constructional and performance characteristics, the test methods and marking of the domestic cooking appliances burning gas for : -18625 Cooking appliances, with or without oven / grill.

\*\*\*\*\*

**Table 1: List of constructional and performance characteristics tests as per ES and EN standards. And DEpra opinion regarding their relation to quality and safety aspects.**

Test	EN	ES	DEpra opinion	
			Quality	Safety
Strength of the appliance body	X	X	X	X
Stability of the oven and grill furniture and of the oven door	X		X	X
Durability of the method of sealing	X	X		X
Obtaining the nominal rate	X		X	
Obtaining the reduced rate	X		X	
Flame failure device delay time	X		X	X
Resistance to overheating	X			X
Pilot flame stability	X	X		X
Escape of unburned gas	X			X
Operation of flame failure devices	X			X
<u>Overheating of the LPG cylinder and its compartment</u>	X		X	X
Total rate of the appliance	X			X
Governor performance	X		X	
Heating	X	X	X	X
Flame stability	X	X		X
Resistance to draught	X			X
Resistance to liquid spillage	X			X
Ignition of hotplate burner	X			X
Combustion (CO :CO <sub>2</sub> )	X	X		X
Burner efficiency	X	X	X	
Safety of operation for oven and grill	X			X
Combustion for oven and grill	X			X
Maintenance consumption of oven	X	X		X
Oven temperature	X	X	X	X
Oven performance	X	X	X	
Grill performance	X	X	X	
Testing of zinc parts		X	X	
Testing of non-metal parts		X	X	
UN-destructive test for tap		X	X	X
Flame air resistance		X		X
Effect of gas pressure on thermostat		X	X	
Effect of changing the graduation of thermostat on the temperature degree		X	X	
Reviewing the thermostat graduation		X	X	
Temperature degree of direct radiant grill		X	X	

\*\*\*\*\*

**Table 2: Comparison between NO. & purposes of tests carried out as per both ES and EN standard and their relation with quality and safety aspects.**

<b>Standard</b>	<b>Quality tests</b>	<b>Safety tests</b>	<b>Quality / Safety tests</b>	<b>Total</b>
<b>EN</b>	<b>6</b>	<b>14</b>	<b>6</b>	<b>26</b>
<b>ES</b>	<b>9</b>	<b>6</b>	<b>4</b>	<b>19</b>

Facts:

1. EN 30 standard is considered one the references standards for EU directives.
2. EN Standards are established by European Committee for Standardization “CEN”
3. ES reference is BS 5386 / 1980
4. All safety aspects are confirmed within EU states by CE mark

Conclusion:

- By reviewing both ES and EN standards it was found out that, although their structure and sections are different, the ES is very close to the EN standard in its constructional and performance aspects, and in measuring tests as well .
- Both the ES and the EN standard are concerned with safety and quality aspects.
- ES states that Quality and safety aspects are considered conditions of acceptance/rejection of appliance.
- Acceptance or rejection conditions in EU states are concerned with safety aspects only, due to CE mark (refer to Annex I)

\*\*\*\*\*

## **8.2. Comparison of ES Standards with BS EN Standards**

### **Electric Heaters**

**A)** ES 406 - 1992, Electric heater, Part 4: Methods of measuring the performance of household electric room heaters (Ref. IEC 675 - 1980), **and**

**B)** BS EN 60675 - 1995, Household electric direct-acting room heaters, methods for measuring performance.

**Purpose of the study:** comparing the compliance limits of the Egyptian standards and the European standards to determine the effects of adopting international standards instead of ES to eliminate TBT and facilitate trade.

## Structure of the Standards

Sr.	EN Sections	ES Sections
1	Scope	Scope
2	Definitions	Definitions
3	Classification	Classification due to their specifications
4	List of measurements	General remarks for tests
5	General conditions for measurements	General conditions for tests
6	Tests	Tests

## List of the structure of ES and BS EN standard

EN	ES
<b>Scope</b>	
This standard defines the main performance characteristics and specific methods for measuring these characteristics.	This standard defines the main performance characteristics and specific methods for measuring these characteristics.
<b>Definitions</b>	
Almost the same	Almost the same
<b>Classification</b>	
The same, but there is a heater with frost protection means	The same, except that there is not a heater with frost protection means
<b>List of measurements</b>	
The same except for there are measurements for: - Frost protection temperature - Effect of radiant heat	The same except for there are not measurements for: - Frost protection temperature - Effect of radiant heat.
<b>General conditions for measurements</b>	
The same, except there is more detail about the positioning of the heater.	The same, except for less detail about positioning.

List of performance tests required by ES and EN standards, and DEPRA opinion regarding their relation to quality and safety aspects.

Tests	BS EN	ES	DEPRA Opinion	
			Quality	Safety
Dimension, mass and means of connection to the supply.	X	X	X	
Temperature rises of air-out grilles and external surfaces.	X	X	X	X
Temperature rises of the surfaces surrounding the heater	X	X	X	X
Warming-up of the heater.	X	X	X	X
Stability of room temperature	X	X	X	
Set-back	X		X	X
Inrush current	X		X	X
Effect of radiant heat	X		X	X
Frost protection temperature	X			X

\*\*\*\*\*

Statistics for tests carried out to check the performance characteristics as per ES, BS EN standard and DEPRA team opinion regarding their relation with quality and safety aspects.

Standard	Quality	Safety	Quality / Safety	Total
BS EN	3	1	5	9
ES	2	-	3	5

\*\*\*\*\*

Facts:

1. BS EN 60675 - 1995 has been prepared by Technical Committee CPL/59, published by the European Committee for Electromechanical Standardization - (CENELEC) it is identical with ICE – 1994.
2. REFERENCE OF ES is IEC – 1980.
3. CENELEC is considered the reference For EU Directives (Refer to Annex II)

## Conclusion:

- By reviewing both ES and BS EN standards, it was found out that, although the structure and sections are different, ES could be considered identical with BS EN standards except for
  - No. of performed tests.
  - BS EN is concerned with frost protection and radiant heat while ES is not.
- Tests to be carried out under ES is the same as the first five carried out under the BS EN standards.
- Both of ES and BS EN standards are concerned with safety and quality aspects.
- ES states that Quality and safety aspects are considered as conditions of acceptance/rejection of appliance.
- Acceptance or rejection conditions in EU states are concerned with safety aspects only, due to CE mark (refer to Annex II)

\*\*\*\*\*

## Section 9

### EU Directives

**9.1. EU directives 90/396/EEC of June 1990** Concerning the harmonization of laws of member states relating to appliances burning gaseous fuels, the following should be noted:

- The harmonization of legislation in the present case must be limited to the provisions necessary to satisfy both the mandatory and essential requirements regarding **safety, health and energy conservation** in relation to gas appliances
- To facilitate proof of conformity with the essential requirements, there is harmonized standards at European level in particular as to the construction, operation and installation of appliances burning gaseous fuels so that products complying with them may be assumed to conform to the essential requirements
- This Directive shall apply to: appliances burning gaseous fuels used for cooking, heating, hot water production, refrigeration, lighting or washing and having, where applicable, a normal water temperature not exceeding 105 gC, hereinafter referred to as 'appliances', Forced draught burners and heating bodies to be equipped with such burners will also be considered as appliances,
- The means of certification of conformity of series-manufactured appliances shall require the EC type-examination

#### Essential Requirements

The obligations resulting from the essential requirements for appliances also apply to fittings where the corresponding risk exists.

#### General Conditions

Appliances must be so designed and built as to **operate safely** and present no danger to persons, domestic animals or property when normally used.

When placed on the market, all appliances must:

- Be accompanied by technical instructions intended for the installer,
- Be accompanied by instructions for use and servicing, intended for the user,
- Bear appropriate warning notices, which must also appear on the packaging.

The instructions and warning notices must be in the official language or languages of the Member States of destination. The technical instructions intended for the installer must contain all the instructions for installation, adjustment and servicing required to ensure that those operations are correctly performed and that the appliance may be used safely. In particular, the instructions must specify:

The type of gas used.

The gas supply pressure used.

The flow of fresh air required.

For the combustion air supply.

To avoid the formation of dangerous unburned gas mixtures for appliances not fitted with the device referred to in point 3.2.3 below.

The conditions for the dispersal of combustion products.

For forced draught burners and heating bodies intended to be equipped with such burners, their characteristics, the requirements for assembly, to assist compliance with the essential requirements applicable to finished appliances and, where appropriate, the list of combinations recommended by the manufacturer.

The instructions for use and servicing intended for the user must contain all the information required for safe use, and must in particular draw the user's attention to any restrictions on use.

The warning notices on the appliance and its packaging must clearly state the type of gas used, the gas supply pressure and any restrictions on use, in particular the restriction whereby the appliance must be installed only in areas where there is sufficient ventilation.

Fittings intended to be part of an appliance must be so designed and built as to fulfil correctly their intended purpose when incorporated in accordance with the instructions for installation.

The instructions for installation, adjustment, operation and maintenance must be provided with the fittings concerned.

### **Materials**

Materials must be appropriate for their intended purpose and must withstand the technical, chemical and thermal conditions to which they will foreseeably be subjected.

The manufacturer or the supplier of the appliance must guarantee the properties of materials that are important for safety.

### **Design and construction**

#### **General**

Appliances must be so constructed that, when used normally, no instability, distortion, breakage or wear likely to impair their safety can occur.

Condensation produced at the start-up and/or during use must not affect the safety of appliances.

Appliances must be so designed and constructed as to minimize the risk of explosion in the event of a fire of external origin.

Appliances must be so constructed that water and inappropriate air penetration into the gas circuit does not occur.

In the event of a normal fluctuation of auxiliary energy, appliances must continue to operate safely.

Abnormal fluctuation or failure of auxiliary energy or its restoration must not lead to an unsafe situation.

Appliances must be so designed and constructed as to obviate hazards of electrical origin. In the area in which it applies, they must comply with safety objectives with respect to electrical hazards.

All pressurized parts of an appliance must withstand the mechanical and thermal stresses to which they are subjected without any deformation affecting safety.

Appliances must be so designed and constructed that failure of a safety, controlling or regulating device cannot lead to an unsafe situation.

If an appliance is equipped with safety and controlling devices, the functioning of the safety devices must not be overruled by that of the controlling devices.

All parts of appliances which are set or adjusted at the stage of manufacture and which should not be manipulated by the user or the installer must be appropriately protected.

Levers and other controlling and setting devices must be clearly marked and give appropriate instructions so as to prevent any error in handling. Their design must be such as to preclude accidental manipulation.

### **Unburned gas release**

Appliances must be so constructed that the gas leakage rate is not dangerous.

Appliances must be so constructed that gas release during ignition and re-ignition and after flame extinction is limited in order to avoid a dangerous accumulation of unburned gas in the appliance.

Appliances intended to be used in indoor spaces and rooms must be fitted with a special device which avoids a dangerous accumulation of unburned gas in such spaces or rooms.

Appliances which are not fitted with such devices must be used only in areas where there is sufficient ventilation to avoid a dangerous accumulation of unburned gas.

Member States may define on their territory adequate space ventilation conditions for the installation of such appliances, bearing in mind the features peculiar to them.

Large-scale kitchen appliances and appliances powered by gas containing toxic components must be equipped with the aforesaid device.

### **Ignition**

Appliances must be so constructed that, when used normally:

- Ignition and re-ignition is smooth,
- Cross-lighting is assured.

### **Combustion**

Appliances must be so constructed that, when used normally, flame stability is assured and combustion products do not contain unacceptable concentrations of substances harmful to health.

Appliances must be so constructed that, when used normally, there will be no accidental release of combustion products.

Appliances connected to a flue for the dispersal of combustion products must be so constructed that in abnormal draught conditions there is no release of combustion products in a dangerous quantity into the room concerned.

Independent flueless domestic heating appliances and flueless instantaneous water heaters must not cause, in the room or space concerned, a carbon monoxide concentration likely to present a danger to the health of persons exposed, bearing in mind the foreseeable duration of their exposure.

### **Rational use of energy**

Appliances must be so constructed as to ensure rational use of energy, reflecting the state of the art and taking into account safety aspects.

### **Temperatures**

Parts of appliances which are intended to be placed in close proximity to the floor or other surfaces must not reach temperatures which present a danger in the surrounding area.

The surface temperature of knobs and levers of appliances intended to be manipulated must not present a danger to the user.

The surface temperatures of external parts of appliances intended for domestic use, with the exception of surfaces or parts which are associated with the transmission of heat, must not under operating conditions present a danger to the user and in particular to children, for whom an appropriate reaction time must be taken into account.

Foodstuffs and water used for sanitary purposes: Without prejudice to the Community rules in this area, materials and components used in the construction of an appliance, which may come into contact with food or water used for sanitary purposes, must not impair their quality.

### **9.2. EU directive 73/23/EEC of 19 February 1973.**

On the harmonization of the laws of member states relating to electrical equipment designed for use within certain voltage:

Principal elements of the safety objectives for electrical equipment designed for use within certain voltage limits:

#### General conditions.

- a) The essential characteristics, the recognition and observance of which will ensure that electrical equipment will be used safely and in applications for which it was made, shall be marked on the equipment, or, if this is not possible, on an accompanying notice.
- b) The manufacturers or brand name or trade mark should be clearly printed on the electrical equipment or, where that is not possible, on the packaging.
- c) The electrical equipment, together with its component parts, should be made in such a way as to ensure that it can be safely and properly assembled and connected .
- d) The electrical equipment should be so designed and manufactured as to ensure that protection against the hazards set out in points 2 and 3 is assured providing that the equipment is used in applications for which it was made and is adequately maintained.

Protection against hazards arising from the electrical equipment.

Measures of a technical nature should be prescribed in accordance with the general condition, in order to ensure:

- a) that persons and domestic animals are adequately protected against danger of physical injury or other harm which might be caused by electrical contact, direct or indirect;
- b) that temperatures, arcs or radiation which would cause a danger are not produced;
- c) that persons, domestic animals and property are adequately protected against non-electrical dangers caused by the electrical equipment which are revealed by experience; and
- d) that the insulation must be suitable for foreseeable conditions.

Protection against hazards which may be caused by external influences on the electrical equipment. Technical measures are to be laid down in accordance with the general conditions, in order to ensure:

- a) that the electrical equipment meets the expected mechanical requirements in such way that persons, domestic animals and property are not endangered;
- b) that the electrical equipment shall be resistant to non-mechanical influences in expected environmental conditions, in such a way that persons, domestic animals and property are not endangered;
- c) that the electrical equipment shall not endanger persons, domestic animals and property in foreseeable conditions of overload .

**Comments:**

- a) The reviewing of EU directives revealed the following:
  - 1) The directives do not address a specific product but rather families of products that could have common adverse effects on the safety of humans, animals or property.
  - 2) The directives mention only the precautions and conditions which should be satisfied by a product to assure that it will not cause any hazard of harm to humans, animals or property.
  - 3) They do not specify or require the existence of any quality criteria unless it has an effect on safety.
- b) In comparison, to that, the Egyptian standard mandates all the specified criteria of the electric heaters, covering both quality and safety characteristics. The most intriguing quality requirement that is mandatory according to ES is the one specifying the dimensions and mass of the appliance.
- c) The EU directive refers to the BS EN 60675 standard for household electric heaters as a standard, which, if complied with, would automatically satisfy the requirements of the directive. Therefore a comparison was made between the ES of the BS EN standard. The comparison revealed that the BS EN is more stringent on safety aspects, as it requires the adherence to six safety characteristics versus only three safety characteristics in ES. This

implies that Egyptian consumer interests could best be served by adopting the BS EN standard.

----- **End of section** -----

## **Section 10**

### **Case Study**

An importer of electrical ballast units for fluorescent lamps has been importing this product for over twenty years. Over that time, he has imported 1.5 million units from the same European manufacturer. He faced no problems during the 20 years period. That is because the products bear the German VDE type mark, establishing its conformity to IEC related standards. The manufacturing company was registered as an ISO 9002 complying company with BSI on February 1996.

Nevertheless, the importer received a consignment of 40,000 pieces on 11<sup>th</sup> of May 1997. A certificate was issued by GOEIC labs stating that a sample was inspected and tested on 12<sup>th</sup> of May and the product was found to conform to IEC 920 and IEC 921. (Some of the tests required by those standard needs at least 30 days). The products were released.

Five months later (on 16<sup>th</sup> of October 1997) a Ministry of Trade inspector picked a sample of one from a shop in Cairo and sent it to EOS labs for conformity testing to ES standards. The EOS labs failed the specimen without giving any reason or specifying the non-conformity aspects of the specimen. The importer is now facing legal charges and has not imported any further units. This has resulted in a major loss of business to the importer.

*This case gives rise to a number of questions:*

#### **10.1. GOEIC Decision :**

1. The decision of GOEIC labs at Alexandria port to accept the product was taken in less than 24 hrs. Since there are over 17 tests to be carried out on the ballast to establish its conformity, and the test period of one of them is 30 days (thermal endurance of winding), which is classified by IEC as a safety requirement one wonders on what criteria the decision was taken.
  - Was it taken on the ground of the VDE mark which the product is certified for?
  - Was it taken on the ground that the product has been imported for several years, and it has always, passed the tests?
  - Were some random tests carried out and found satisfactory?
2. The GOIEC decision states that the ballast conforms to the requirements of both IEC 920 and IEC 921. IEC 920 specifies the general and safety requirements, while IEC 921 specifies the performance requirements. It is Clear that the product was inspected and approved in record time, which is to be encouraged. However, the actual test criteria used was not clear in discussion with GOEIC for example it is not clear whether GOEIC labs satisfy the requirements of ISO guide 25, including reliance on the test results.

#### **10.2. Ministry of Supply Inspector:**

1. Is it logical to inspect and test a product which has been previously accepted by another government agency (even, in this case, one belonging to the same ministry)?

2. Was the inspector sure that the sample taken was a representative sample of the imported lot? Was he sure that the sample picked was not subjected to severe conditions at the shop, which could have damaged it?
3. Where different criteria used by the Ministry of Trade and Supply inspector, than used by GOEIC?

Both IEC and ES standards for ballast state that the minimum sample size is 8 units.

Therefore:

- On what grounds did the EOS labs accept a sample of one?,
- On what grounds did it issue a statement that the product does not conform to the requirements of the standard?
- Was the decision based on the failure of a safety characteristic? This would require a review of the whole of the imported lot. Or, was it based on a performance characteristic, which does not endanger anybody?
- Was an analysis made to establish if the defect discovered can be attributed to the normal acceptance level in that specific industry, or it is attributed to an intentional fraud by the importer or the manufacturer?
- Do EOS labs satisfy the requirements of ISO guide 25 so one can rely on the test results obtained by them?

### **10.3. Lessons Learned**

1. There seems to be a serious problem inherent in the existence of two separate inspection agencies in Egypt that apply somewhat different standards to the same product. Clearly the GOE has introduced a negative variable into the importing process. An inter-ministerial committee is probably required to explore the problem and implement needed changes.
2. Test laboratories should be accredited in order to have sufficient confidence in their findings.

----- **End of Section** -----

**Development Economic Policy  
Reform Analysis (DEPRA) Project**

*Pilot Study for pre-Certification of Imported Goods*

*Appendices*

- A. Interview list
- B. Definitions and terms
- C. Declaration of Conformity
- D. General Rules for Interpretation of the “Harmonized System”
- E. EU Directive 73/23EEC Low Voltage Directive
- F. EU Directive 90/396EEC Appliances Burning Gaseous Fuels
- G. IFTA - Code of Practice for Government Mandated Pre-shipment Inspection Activities
- H. International Standards Bodies
- I. European Standards EN 30
- J. British Standards EN 60675
- K. Current Status of the Product Inspection System in Egypt for Non-Food Products

## **Appendix A**

### **Interview List**

#### **Ain Shams University**

Assistant Professor, Faculty of  
Engineering,  
Dr. Faissal ABD El-Hady

#### **Cellopack Packaging Industries S.A.E.**

Chairman, Khaled Hamza

#### **Center for Quality Assurance**

Managing Director, Dr. Khlaed Hamdy

#### **Egyptian Organization for Standardization and Quality Control**

President, Dr. A.B. El Sebai  
Director General, Magdi A. Barakat

#### **General Organization for Export and Import Control**

Chairman, Mr. Fakhr Abou El-Ezz  
General Mgr. Dr. Youssef L. Aziz  
General Mgr. Dr. Mohamed Abd El-  
Moniem Tawfik  
General Mgr. Mr. Hasson Mohamed  
Hasson

#### **Inspectorate, Quality Management Systems**

President, Eng. Amr El- Ashry

#### **Ministry of Trade & Supply**

Foreign Trade Division  
Mr. Abdel Rahman Fawzi

#### **National Institute for Standards**

President, Dr. Mohamed El-Fiki

#### **National Laboratory Accreditation Bureau,**

Chief Executive,  
Prof. Dr. Ahmed El-Sayed

#### **NIS – Total Quality Consultancy**

Vice President, Prof. Dr. M.S. Shaalan

#### **SGS, Societe Generale**

Senior Vice President,  
Michel M. Muller

#### **SGS, Egypt**

Eng. Osmam Osman, President  
Sr. Vice President, Rabheb El-Ayat  
Eng. Abd Elaal El-Sayed

#### **Underwriters Laboratory – Information Center, Egypt**

General Manager,  
Eng. Magdy A. Shaban

#### **Underwriters Laboratory – USA**

Vice President, Mr. John Teufel

#### **U.S. Embassy – Commercial Service**

Commercial Attache',  
Mr. Bryan Smith

#### **U.S. National Institute of Standards and Technology**

Director, Office of International and  
Academic Affairs,  
Dr. Stephen Carpenter,  
Chief, Dr. Claire Saundry  
Chief, Calibration Program  
Ms. Sharrill Dittmann

#### **U.S. National Voluntary Laboratory Accreditation Program**

Chief, Mr. James Cigler

#### **United States Agency for International Development**

Mr. Gordon Terry

#### **World Trade Organization**

Economic Affairs Officer, Ms. Vivien Liu

## **Appendix B**

### **Definitions & Commonly Used Terms by the International Standards Community**

*Explanations of some definitions commonly used by the international standards community is stated below. It is important that we comprehend the meaning of these terms associated with product safety and quality in general as used in this report.*

#### **The International Vocabulary of Basic and General Terms in Metrology defines the following:**

##### ***Accreditation:***

*To authorize, to recognize, to confirm.  
The procedure through which a competent body recognizes that a body or person is competent to carry out specific tasks.*

*Laboratory Accreditation provides a means of determining the competence of laboratories to perform specific types of testing, measurement and calibration.*

##### ***Assessment:***

*To observe, to classify, to judge.  
Examination of a testing laboratory to evaluate its compliance with specific laboratory accreditation criteria.*

*Note: The definitions of auditing & assessing appear to be similar;*

*Auditing = A system is examined*

*Assessing =Includes the people, equipment, procedures, laboratory, etc.*

##### ***Auditing***

*Evaluation of the efficiency of a quality system or its elements on the basis of an independent systematic examination.*

##### ***Certification***

*To declare (officially) that something is true and correct.  
Certification of conformity:  
Measurements taken by an impartial third party, which shows...that a product, method, service is in compliance with a certain standards.*

##### ***Traceability***

*Property if a result of a measurement or value of a standard, whereby it is related to a national standard through an unbroken chain of comparisons, all having stated uncertainties.*

## **Other internationally accepted terms**

### **Conformity Assessment**

*The comprehensive term for the system by which products and processes are evaluated and determined to conform to particular standards. Testing inspection, auditing and related procedures are the tools of conformity assessment.*

### **Certification of Conformance:**

*To declare (officially) that something is true and correct.*

### **Pre-Certification of products:**

*A recognized third party certifies that the process followed by the manufacturer insures that the product offered has been produced and tested to satisfy the requirements of consumer safety.*

### **Pre-Inspection:**

*An inspection of the product at the manufacturer's premises or point of export to insure that certain defined requirements is satisfied.*

### **International Standards:**

*The term "International Standards" means only those developed by what the WTO names as "international standards and conformity assessment bodies"*

*Note: The above standards are those issued by ISO, IEC and ITU.*

### **Internationally Recognized Standards:**

*These are standards issued by bodies considered by the international industrial and trading community and hence forth by governments as competent reputable bodies. Those bodies have been in the process of issuing standards for many years.*

*Example: ANSI, (USA) ASTM, (USA) BS, (UK) BSI, (UK) DIN, (Germany) CSA. (Canada) AFNOR, (France) JIS (Japan)*

### **Harmonized Standards**

*Harmonization is the process or result of making the regulation in two or more jurisdictions affecting the production and sale of products and services identical or at least more similar*

*Examples: Regional standards such as CEN/CENELAC (EU), COPANT (Western Hemisphere), PASC (Pacific Area. More) enhanced harmonized standards have been developed through EU Directives (Europe) and UL (USA)*

### **Technical Regulations**

#### **Mandatory**

*Document which lays down product characteristics or their related process and production methods, including applicable administrative provisions, with which is mandatory.*

*Note: The WTO has issued the above definition*

## **Standards**

### Voluntary

*Established technical requirements for materials, grading, construction, dimensions, tolerances, marking, or other details. Standards also define quality levels for products and establish uniform methods of test for achieving and determining compliance with the standards.*

## **EU Directives**

*These are the directives issued by the European Commission for the purpose of regulating the movement of goods and services within the single market of the EU.*

## **EU Product Directives**

*The harmonization of technical standards for regulated products are centered on the safety and health aspects of these products, and is intended to produce minimum safety and health levels throughout the union.*

## **Appendix C**

### **Declaration of Conformity**

# Declaration of Conformity

We,

Company

*(Supplier's name)*

---

*(supplier's address)*

---

declare under our sole responsibility that the product:

Type description and model number

*Name, type or model, batch or serial number, possibly source and number of items.*

---

to which this declaration relates in conformity with the following European, harmonized and published standards at date of this declaration:

Standard:	EN 60950		
	EN 50082-1 :1997	harmonized	
	EN 55011: 1991	harmonized	examples
	EN 61000-3-2: 1995	harmonized	
	EN 61000-3-3:1995	harmonized	

*Title and or number and date of issue of the applied standard(s)*

---

following the provisions of the Directives (if applicable):

EMC-directive : 89/336/EEC

*Amendment to the above directive: 93/68/EEC*

Low Voltage Directive : 73/23/EEC

*Amendment to the above directive: 93/68/EEC*

---

These conclusions are based on test reports:

Report number xxxxxxxx issued by  
**ce-test** PO box 563 2600 AN Delft

*test report number, date and name of test house*

---

city and date

*Place and date of issue*

---

name of responsible person

*name of responsible for CE-marking*

---

Feb 9802-21-98

## **Appendix D**

### **DG III s Reference to Harmonized Standards**



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# DG III's Reference to harmonised standards

**in the context of the New Approach Directives List of standards published in the O.J. of the E.C. on 1998-01-26**

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## **Notice to the Reader**

Directive 73/23/EEC

Directive 87/404/EEC 90/488/EC

Directive 88/378/EEC

Directive 89/106/EEC

Directive 89/336/EEC, 92/31/EC

Directive 89/392/EEC, 91/368/EC, 93/44/EEC

Directive 89/686/EEC, 93/95/EEC

Directive 90/384/EEC

Directive 90/385/EEC

Directive 90/396/EE

Directive 91/263/EEC, 93/97/EEC

Directive 92/42/EEC

Directive 93/15/EEC

Directive 93/42/EEC

Directive 93/68/EEC

Directive 94/9/EEC

Directive 94/25/EEC

Directive 95/16/EEC

**Norminstitutes**

**Low Voltage**

**Simple Pressure Vessels**

**Safety of toys**

**Construction products**

**Electromagnetic compatibility (EMC)**

**Machinery**

**Personal protective equipment (PPE)**

**Non-automatic weighing**

**Active implantable medical devices**

**Appliances burning gaseous fuels**

**Telecommunications terminal equipment**

**New hot-water boilers fired BOILERS FIRED with liquid or gaseous fuels (\*)**

**Explosives for civil uses**

**Medical devices**

**Global directive amending directive 1-12**

**Equipment explosive atmosphere (ATEX)**

**Recreational craft**

**Lifts**

List of Standards Institutes

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Should you require more information regarding the domains, please contact the services whose coordinates are given at the beginning of each table.

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The version of 1996-01-01, except where indicated (\*) has been updated; from now on it will be regularly updated.

Should you require more information regarding the updates, please contact the following:

**Unit responsible** : DGIII/B/2

**Head of Unit** : Mr. R. Buscher

European Commission

rue de la Loi 200

B- 1049 Brussels

**Contact person** : [Ingrid.Gillisjans@dg3.cec.be](mailto:Ingrid.Gillisjans@dg3.cec.be)

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## **Appendix G**

### **EU Directives 73/23 EEC: Low Voltage Directives**



## Community legislation in force

Document 373L0023



### Directory chapters where this document can be found:

[ [13.30.13 - Electrical material](#) ]

373L0023

### **Council Directive 73/23/EEC of 19 February 1973 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits**

*Official journal NO. L 077 , 26/03/1973 P. 0029 - 0033*

*Greek special edition ....: Chapter 13 Volume 2 P. 58*

*Spanish special edition....: Chapter 13 Volume 2 P. 182*

*Portuguese special edition Chapter 13 Volume 2 P. 182*

*Finnish special edition....: Chapter 13 Volume 2 P. 167*

*Swedish special edition....: Chapter 13 Volume 2 P. 167*

### **Amendments:**

*Amended by [393L0068](#) (OJ L 220 30.08.93 p.1)*

*Incorporated by [294A0103\(52\)](#) (OJ L 001 03.01.94 p.263)*

### **Text:**

COUNCIL DIRECTIVE of 19 February 1973 on the harmonization of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (73/23/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100 thereof;

Having regard to the proposal from the Commission;

Having regard to the Opinion of the European Parliament;

Having regard to the Opinion of the Economic and Social Committee;

Whereas the provisions in force in the Member States designed to ensure safety in the use of electrical equipment used within certain voltage limits may differ, thus impeding trade;

Whereas in certain Member States in respect of certain electrical equipment, the safety legislation takes the form of preventive and repressive measures by means of binding provisions;

Whereas in other Member States in order to achieve the same objective, the safety legislation provides for reference to technical standards laid down by Standards Bodies ; whereas such a system offers the advantage of rapid adjustment to technical progress without neglecting safety requirements;

Whereas certain Member States carry out administrative operations to approve standards ; whereas such approval neither affects the technical content of the standards

in any way nor limits their conditions of use ; whereas such approval cannot therefore alter the effects, from a Community point of view, of harmonized and published standards;

Whereas within the Community the free movement of electrical equipment should follow when this equipment complies with certain safety requirements recognized in all Member States ; whereas without prejudice to any other form of proof, the proof of compliance with these requirements may be established by reference to harmonized standards which incorporate these conditions ; whereas these harmonized standards should be established by common agreement by bodies to be notified by each Member State to the other Member States and to the Commission and should be publicized as widely as possible ; whereas such harmonization should for the purposes of trade eliminate the inconveniences, resulting from differences between national standards;

Whereas, without prejudice to any other form of proof, the compliance of electrical equipment with the harmonized standards may be presumed from the affixing or issue of marks or certificates by the competent organizations or, in the absence thereof, from a manufacturer's declaration of compliance ; whereas in order to facilitate the removal of barriers to trade the Member States should recognize such marks or certificates or such declaration as elements of proof ; whereas, with this end in view, the said marks or certificates should be publicized in particular by their publication in the Official Journal of the European Communities;

Whereas as a transitional measure, the free movement of electrical equipment for which harmonized standards do not yet exist may be achieved by applying the safety provisions or standards already laid down by other international bodies or by one of the bodies which establish harmonized standards;

Whereas it is possible that electrical equipment may be placed in free circulation even though it does not comply with the safety requirements, and whereas it is therefore desirable to lay down suitable provisions to minimize this danger;

HAS ADOPTED THIS DIRECTIVE:

#### Article 1

For the purposes of this Directive "electrical equipment" means any equipment designed for use with a voltage rating of between 50 and 1 000 v for alternating current and between 75 and 1 500 v for direct current, other than the equipment and phenomena listed in Annex II.

#### Article 2

1. The Member States shall take all appropriate measures to ensure that electrical equipment may be placed on the market only if, having been constructed in accordance with good engineering practice in safety matters in force in the Community, it does not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.
2. The principal elements of the safety objectives referred to in paragraph 1 are listed in Annex I.

#### Article 3

The Member States shall take all appropriate measures to ensure that if electrical equipment is of such a nature as to comply with the provisions of Article 2, subject to the conditions laid down in Articles 5, 6, 7 and 8, the free movement thereof within the Community shall not be impeded for reasons of safety.

#### Article 4

In relation to electrical equipment the Member States shall ensure that stricter safety requirements than those laid down in Article 2 are not imposed by electricity supply

bodies for connection to the grid, or for the supply of electricity to users of electrical equipment.

#### Article 5

The Member States shall take all appropriate measures to ensure that, in particular, electrical equipment which complies with the safety provisions of harmonized standards shall be regarded by their competent administrative authorities as complying with the provisions of Article 2, for the purposes of placing on the market and free movement as referred to in Articles 2 and 3 respectively.

Standards shall be regarded as harmonized once they are drawn up by common agreement between the bodies notified by the Member States in accordance with the procedure laid down in Article 11, and published under national procedures. The standards shall be kept up to date in the light of technological progress and the developments in good engineering practice in safety matters.

For purposes of information the list of harmonized standards and their references shall be published in the Official Journal of the European Communities.

#### Article 6

1. Where harmonized standards as defined in Article 5 have not yet been drawn up and published, the Member States shall take all appropriate measures to ensure that, for the purposes of placing on the market or free movement as referred to in Articles 2 and 3 respectively, their competent administrative authorities shall also regard, as complying with the provisions of Article 2, electrical equipment which complies with the safety provisions of the International Commission on the Rules for the Approval of Electrical Equipment (CEE) or of the International Electrotechnical Commission (IEC) in respect of which the publication procedure laid down in paragraphs 2 and 3 has been applied.

2. The safety provisions referred to in paragraph 1 shall be notified to the Member States by the Commission as from the entry into force of this Directive, and thereafter as and when they are published. The Commission, after consulting the Member States, shall state the provisions and in particular the variants which it recommends to be published.

3. The Member States shall inform the Commission within a period of three months of such objections as they may have to the provisions thus notified, stating the safety grounds on account of which the provisions should not be recognized.

For purposes of information those safety provisions against which no objection has been raised shall be published in the Official Journal of the European Communities.

#### Article 7

Where harmonized standards within the meaning of Article 5 or safety provisions published in accordance with Article 6 are not yet in existence, the Member States shall take all appropriate measures to ensure that, for the purpose of placing on the market or free movement as referred to in Articles 2 and 3 respectively, their competent administrative authorities shall also regard as complying with the provisions of Article 2, electrical equipment manufactured in accordance with the safety provisions of the standards in force in the Member State of manufacture, if it ensures a safety level equivalent to that required in their own territory.

#### Article 8

1. The Member States shall take all appropriate steps to ensure that their competent administrative authorities shall also allow the placing on the market or free movement, as referred to in Articles 2 and 3 respectively, of electrical equipment which, although not conforming with the harmonized standards referred to in Article 5 or the provisions of Articles 6 and 7, complies with the provisions of Article 2.

2. In the event of a challenge the manufacturer or importer may submit a report, drawn up by a body, which is notified in accordance with the procedure set out in Article 11, on the conformity of the electrical equipment with the provisions of Article 2.

#### Article 9

1. If, for safety reasons, a Member State prohibits the placing on the market of any electrical equipment or impedes its free movement, it shall immediately inform the other Member States concerned and the Commission, indicating the grounds for its decision and stating in particular: - whether its non-conformity with Article 2 is attributable to a shortcoming in the harmonized standards referred to in Article 5, the provisions referred to in Article 6 or the standards referred to in Article 7;  
- whether its non-conformity is attributable to faulty application of such standards or publications or to failure to comply with good engineering practice as referred to in Article 2.

2. If other Member States raise objections to the decision referred to in paragraph 1, the Commission shall immediately consult the Member States concerned.

3. If an agreement has not been reached within three months from the date of notification as laid down in paragraph 1, the Commission shall obtain the opinion of one of the bodies notified in accordance with the procedure laid down in Article 11 having its registered office outside the territory of the Member States concerned and which has not been involved in the procedure provided for in Article 8. The opinion shall state the extent to which the provisions of Article 2 have not been complied with.

4. The Commission shall communicate the opinion of this body to all the Member States which may, within a period of one month, make their observations known to the Commission. The Commission shall at the same time note any observations by the parties concerned on the abovementioned opinion.

5. Having taken note of these observations the Commission shall, if necessary, formulate the appropriate recommendations or opinions.

#### Article 10

1. Without prejudice to other methods of proof, the Member States shall take all appropriate steps to ensure that their competent administrative authorities shall accept that there is a presumption of conformity with the provisions of Articles 5, 6 and 7 where a mark has been placed on the electrical equipment denoting conformity, or where a certificate of conformity is produced or, in the absence thereof, and in particular in the case of industrial equipment, the manufacturer's declaration of conformity.

2. The marks or certificates shall be established, separately or by common agreement, by the bodies notified in accordance with the procedure laid down in Article 11. Specimens of these marks or certificates shall be published by these bodies and, for information purposes in the Official Journal of the European Communities.

#### Article 11

Each Member State shall inform the other Member States and the Commission of the following: - the bodies referred to in Article 5;

- the bodies which may establish the marks and certificates in accordance with the provisions of Article 10;

- the bodies which may make a report in accordance with the provisions of Article 8 or give an opinion in accordance with the provisions of Article 9;

- the place of publication referred to in Article 5 (2);

Any amendment to the above shall be notified by each Member State to the other Member States and to the Commission.

#### Article 12

This Directive shall not apply to electrical equipment intended for export to third countries.

#### Article 13

1. The Member States shall put into force the laws, regulations and administrative provisions necessary to comply with the requirements of this Directive within eighteen months of its notification and shall forthwith inform the Commission thereof.

However, in the case of Denmark, the time limit shall be extended to five years.

2. The Member States shall communicate to the Commission the texts of the main provisions of national laws which they adopt in the field covered by this Directive.

#### Article 14

This Directive is addressed to the Member States.

Done at Brussels, 19 February 1973.

For the Council

The President

A. LAVENS

### ANNEX I PRINCIPAL ELEMENTS OF THE SAFETY OBJECTIVES FOR ELECTRICAL EQUIPMENT DESIGNED FOR USE WITHIN CERTAIN VOLTAGE LIMITS

1. General conditions a) The essential characteristics, the recognition and observance of which will ensure that electrical equipment will be used safely and in applications for which it was made, shall be marked on the equipment, or, if this is not possible, on an accompanying notice.

b) The manufacturers or brand name or trade mark should be clearly printed on the electrical equipment or, where that is not possible, on the packaging.

c) The electrical equipment, together with its component parts should be made in such a way as to ensure that it can be safely and properly assembled and connected.

d) The electrical equipment should be so designed and manufactured as to ensure that protection against the hazards set out in points 2 and 3 of this Annex is assured providing that the equipment is used in applications for which it was made and is adequately maintained.

#### 2. Protection against hazards arising from the electrical equipment

Measures of a technical nature should be prescribed in accordance with point 1, in order to ensure: a) that persons and domestic animals are adequately protected against danger of physical injury or other harm which might be caused by electrical contact direct or indirect;

b) that temperatures, arcs or radiation which would cause a danger, are not produced;

c) that persons, domestic animals and property are adequately protected against non-electrical dangers caused by the electrical equipment which are revealed by experience;

d) that the insulation must be suitable for foreseeable conditions.

### 3. Protection against hazards which may be caused by external influences on the electrical equipment

Technical measures are to be laid down in accordance with point 1, in order to ensure:

- a) that the electrical equipment meets the expected mechanical requirements in such a way that persons, domestic animals and property are not endangered;
- b) that the electrical equipment shall be resistant to non-mechanical influences in expected environmental conditions, in such a way that persons, domestic animals and property are not endangered;
- c) that the electrical equipment shall not endanger persons, domestic animals and property in foreseeable conditions of overload.

## ANNEX II EQUIPMENT AND PHENOMENA OUTSIDE THE SCOPE OF THE DIRECTIVE

Electrical equipment for use in an explosive atmosphere

Electrical equipment for radiology and medical purposes

Electrical parts for goods and passenger lifts

Electricity meters

Plugs and socket outlets for domestic use

Electric fence controllers

Radio-electrical interference

Specialized electrical equipment, for use on ships, aircraft or railways, which complies with the safety provisions drawn up by international bodies in which the Member States participate.

### End of the document

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## Directive 73/23/EEC

### COUNCIL DIRECTIVE OF 19 FEBRUARY 1973 ON THE HARMONIZATION OF THE LAWS OF MEMBER STATES RELATING TO ELECTRICAL EQUIPMENT DESIGNED FOR USE WITHIN CERTAIN VOLTAGE LIMITS (73/23/EEC)

(26.3.73 0J No L 77/29) Found at: <http://www2.echo.lu/nasd/dckbl-1.html>

Short name: [Low Voltage Directive - LVD]  
Base: Directive 73/23/EEC  
Modification: Directive 93/68/EEC [CE Marking]  
Application Guide: [-]  
EC contact point: DG III - D/1 (Mr. Ulzurrun de Asanza y Munoz, Tel. +32.2.295.48.67, Fax. +32.2.296.62.73)

#### Low Voltage Directive

European Standardization Bodies	Standard reference	Titles	Ratification date	Publication OJ
CENELEC	EN 41003	Particular safety requirements for equipment to be connected to telecommunication networks	1990-09-01	C 392 of 1996-12-30
CENELEC	EN 50060	Power sources for manual metal arc welding with limited duty	1988-12-06	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 50060	Power sources for manual metal arc welding with limited duty	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 50063	Safety requirements for the construction and the installation of equipment for resistance welding and allied processes	1988-09-13	C 392 of 1996-12-30
CENELEC	EN 50078	Torches and guns for arc welding	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 50083-1	Cabled distribution systems for television and sound signals - Part 1: Safety requirements	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 50083-3	Cabled distribution systems for television and sound signals - Part 3: Active coaxial wideband distribution equipment	1993-09-22	C 392 of 1996-12-30

CENELEC	EN 50083-4	Cabled distribution systems for television and sound signals - Part 4: Passive coaxial wideband distribution equipment	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 50083-5	Cabled distribution systems for television and sound signals - Part 5: Headend equipment	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 50083-6	Cabled distribution systems for television and sound signals - Part 6: Optical equipment	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 50084	Safety of household and similar electrical appliances - Requirements for the connection of washing machines, dishwashers and tumbler dryers to the water mains	1991-03-15	C 392 of 1996-12-30
CENELEC	EN 50086-1	Conduit systems for electrical installations - Part 1: General requirements	1993-07-06	C 392 of 1996-12-30
CENELEC	EN 50086-2-1	Conduit systems for electrical installations - Part 2-1: Particular requirements for rigid conduit systems	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 50086-2-2	Conduit systems for electrical installations - Part 2-2: Particular requirements for pliable conduit systems	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 50086-2-3	Conduit systems for electrical installations - Part 2-3: Particular requirements for flexible conduit systems	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 50086-2-4	Conduit systems for electrical installations - Part 2-4: Particular requirements for conduit systems buried underground	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 50087	Safety of household and similar electrical appliances - Particular requirements for bulk-milk coolers	1992-12-09	C 392 of 1996-12-30
CENELEC	EN 50091-1	Uninterruptible power systems (UPS) - Part 1: General and safety requirements	1992-12-09	C 392 of 1996-12-30
CENELEC	EN 50098-1	Customer premises cabling for Information Technology - Part 1: ISDN basic access	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 50144-1	Safety of hand-held electric motor operated tools - Part 1: General requirements	1994-07-05	C 392 of 1996-12-30
CENELEC	EN 50144-2-1	Safety of hand-held electric	1994-10-04	C 392 of

		motor operated tools - Part 2-1: Particular requirements for drills		1996-12-30
CENELEC	EN 50144-2-2	Safety of hand-held electric motor operated tools - Part 2-2: Particular requirements for screwdrivers and impact wrenches	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 50144-2-4	Safety of hand-held electric motor operated tools - Part 2-4: Particular requirements for sanders	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 60034-1	Rotating electrical machines - Part 1: Rating and performance  IEC 34-1:1994 + corrigendum Dec. 1994  Modified	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 60034-4	Rotating electrical machines - Part 4: Methods for determining synchronous machine quantities from tests  IEC 34-4:1985  Modified	1995-05-15	C 392 of 1996-12-30
CENELEC	EN 60034-5	Rotating electrical machines - Part 5: Classification of degrees of protection provided by enclosures for rotating machinery  IEC 34-5:1981  Modified	1985-03-07	C 392 of 1996-12-30
CENELEC	EN 60034-6	Rotating electrical machines - Part 6: Methods of cooling (IC Code)  IEC 34-6:1991	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60034-7	Rotating electrical machines - Part 7: Classification of types of construction and mounting arrangements (IM Code)  IEC 34-7:1992	1992-03-24	C 392 of 1996-12-30
CENELEC	EN 60034-9	Rotating electrical machines - Part 9: Noise limits  IEC 34-9:1990 + corrigendum Mar.	1993-09-22	C 392 of 1996-12-30

		Modified		
CENELEC	Amendment A1 to EN 60034-9	Rotating electrical machines - Part 9: Noise limits  IEC 34-9:1990/A1:1995	1995-05-15	C 392 of 1996-12-30
CENELEC	EN 60034-12	Rotating electrical machines - Part 12: Starting performance of single-speed three-phase cage induction motors for voltages up to and including 660 V, 50 Hz  IEC 34-12:1980+A1:1992,mod.	1995	C 125 of 1997-04-22
CENELEC	Amendment A2 to EN 60034-12	Rotating electrical machines - Part 12: Starting performance of single-speed three-phase cage induction motors for voltages up to and including 660 V, 50 Hz  IEC 34-12:1980/A2:1995	1995	C 125 of 1997-04-22
CENELEC	EN 60034-18-1	Rotating electrical machines - Part 18: Functional evaluation of insulation systems - Section 1: General guidelines  IEC 34-18-1:1992 + corrigendum Aug. 1992	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60034-18-21	Rotating electrical machines - Part 18: Functional evaluation of insulation systems - Section 21: Test procedures for wire-wound windings - Thermal evaluation and classification  IEC 34-18-21:1992	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60034-18-31	Rotating electrical machines - Part 18: Functional evaluation of insulation systems - Section 31: Test procedures for form-wound windings - Thermal evaluation and classification of insulation systems used in machines up to and including 50 MVA and 15kV  IEC 34-18-31:1992	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60051-1	Direct acting indicating analogue electrical-measuring instruments and their accessories - Part 1: Definitions and general requirements	1989-09-11	C 392 of 1996-12-30

		common to all parts IEC 51-1:1984		
CENELEC	Amendment A1 to EN 60051-1	Direct acting indicating analogue electrical-measuring instruments and their accessories - Part 1: Definitions and general requirements common to all parts IEC 51-1:1984/A1:1994	1995-05-15	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60051-1	Direct acting indicating analogue electrical-measuring instruments and their accessories - Part 1: Definitions and general requirements common to all parts IEC 51-1:1984/A1:1995	1995-02-15	C 392 of 1996-12-30
CENELEC	EN 60051-2	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 2: Special requirements for ammeters and voltmeters IEC 51-2:1984	1989-09-11	C 392 of 1996-12-30
CENELEC	EN 60051-3	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 3: Special requirements for wattmeters and varimeters IEC 51-3:1984	1989-09-11	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60051-3	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 3: Special requirements for wattmeters and varimeters IEC 51-3:1984/A1:1994	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 60051-4	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 4: Special requirements for frequency meters IEC 51-4:1984	1989-09-11	C 392 of 1996-12-30
CENELEC	EN 60051-5	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 5: Special requirements for phase	1989-09-11	C 392 of 1996-12-30

		meters, power factor meters and synchrosopes  IEC 51-5:1985		
CENELEC	EN 60051-6	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 6: Special requirements for ohmmeters (impedance meters) and conductance meters  IEC 51-6:1984	1989-09-11	C 392 of 1996-12-30
CENELEC	EN 60051-7	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 7: Special requirements for multi-function instruments  IEC 51-7:1984	1989-09-11	C 392 of 1996-12-30
CENELEC	EN 60051-8	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 8: Special requirements for accessories  IEC 51-8:1984	1989-09-11	C 392 of 1996-12-30
CENELEC	EN 60051-9	Direct acting indicating analogue electrical-measuring instruments and their accessories - Part 9: Recommended test methods  IEC 51-9:1988	1989-09-11	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60051-9	Direct acting indicating analogue electrical-measuring instruments and their accessories - Part 9: Recommended test methods  IEC 51-9:1988/A1:1994	1995-05-15	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60051-9	Direct acting indicating analogue electrical-measuring instruments and their accessories - Part 9: Recommended test methods  IEC 51-9:1988/A2:1995	1995-02-15	C 392 of 1996-12-30
CENELEC	EN 60061-1	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1: Lamp caps  IEC 61-1:1969 + IEC 61-1A:1970 to IEC 61-1N:1992	1993-03-09	C 392 of 1996-12-30

		Modified		
CENELEC	Amendment A1 to EN 60061-1	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1: Lamp caps  IEC 61-1P:1994	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60061-2	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2: Lampholders  IEC 61-2:1969 + IEC 61-2A:1970 to IEC 61-2K:1992  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60061-2	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2: Lampholders  IEC 61-2L:1994	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60061-3	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3: Gauges  IEC 61-3:1969 + IEC 61-3A:1970 to IEC 61-3M:1992, mod  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60061-3	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3: Gauges  IEC 61-3N:1994	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60061-4	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 4: Guidelines and general information  IEC 61-4:1990, mod.  Modified	1992-06-16	C 392 of 1996-12-30
CENELEC	EN 60065	Safety requirements for mains operated electronic and related apparatus for household and	1993-07-06	C 392 of 1996-12-30

		similar general use  IEC 65:1985 + A1:1987 + A2:1989 + A3:1992, mod.  Modified		
CENELEC	EN 60081	Tubular fluorescent lamps for general lighting service  IEC 81:1984 + A1:1987 + A2:1988	1989-11-01	C 392 of 1996-12-30
CENELEC	Amendment A3 to EN 60081	Tubular fluorescent lamps for general lighting service  IEC 81:1984/A3:1992	1993-09-22	C 392 of 1996-12-30
CENELEC	Amendment A4 to EN 60081	Tubular fluorescent lamps for general lighting service  IEC 81:1984/A4:1993	1994-07-05	C 392 of 1996-12-30
CENELEC	Amendment A5 to EN 60081	Tubular fluorescent lamps for general lighting service  IEC 81:1984/A5:1994	1995-02-15	C 392 of 1996-12-30
CENELEC	EN 60127-1	Miniature fuses - Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links  IEC 127-1:1988 + corrigendum March 1990	1991-02-01	C 392 of 1996-12-30
CENELEC	EN 60127-2	Miniature fuses - Part 2: Cartridge fuse-links  IEC 127-2:1989 + corrigendum March 1990	1991-02-01	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60127-2	Miniature fuses - Part 2: Cartridge fuse-links  IEC 127-2:1989/A1:1995	1995	C 125 of 1997.04.22
CENELEC	EN 60127-3	Miniature fuses - Part 3: Sub-miniature fuse-links  IEC 127-3:1988	1991-02-01	C 392 of 1996-12-30
CENELEC	EN 60127-6	Miniature fuses - Part 6: Fuse-holders for miniature cartridge fuse-links  IEC 127-6:1994	1993-07-06	C 392 of 1996-12-30
CENELEC	EN 60143	Series capacitors for power systems - Part 1: General -	1993-07-06	C 392 of 1996-12-30

		Performance, testing and rating - Safety requirements - Guide for installation (Corrigendum January 1994)  IEC 143:1992 + corrigendum Jan. 1994, mod.  Modified		
CENELEC	EN 60155	Glow-starters for fluorescent lamps  IEC 155:1993	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60188	High-pressure mercury vapour lamps  IEC 188:1974 + A1:1976 + A2:1979 + A3:1984, mod.  Modified	1986-09-01	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60188	High-pressure mercury vapour lamps  IEC 188:1974/A4:1988, mod.  Modified	1990-06-11	C 392 of 1996-12-30
CENELEC	Amendment A5 to EN 60188	High-pressure mercury vapour lamps  IEC 188:1974/A5:1991, mod.  Modified	1993-07-06	C 392 of 1996-12-30
CENELEC	EN 60204-1	Safety of machinery - Electrical equipment of machines - Part 1: General requirements  IEC 204-1:1992, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	EN 60204-3-1	Electrical equipment of industrial machines - Part 3: Particular requirements for sewing machines, units and systems  IEC 204-3-1:1988	1990-06-11	C 392 of 1996-12-30
CENELEC	EN 60215	Safety requirements for radio transmitting equipment  IEC 215:1987	1988-12-06	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN	Safety requirements for radio transmitting equipment	1992-06-16	C 392 of 1996-12-30

	60215	IEC 215:1987/A1:1990		
CENELEC	Amendment A2 to EN 60215	Safety requirements for radio transmitting equipment IEC 215:1987/A2:1993	1994-07-05	C 392 of 1996-12-30
CENELEC	EN 60238	Edison screw lampholders IEC 238:1991 + corrigendum Jun. 1992, mod. Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60238	Edison screw lampholders IEC 238:1991/A1:1993	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60252	A.C. motor capacitors IEC 252:1993, mod. Modified	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60269-1	Low-voltage fuses - Part 1: General requirements  (Corrigendum June 1993) IEC 269-1:1986	1988-06-28	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60269-1	Low-voltage fuses - Part 1: General requirements IEC 269-1:1986/A1:1994	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60269-2	Low-voltage fuses - Part 2: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) IEC 269-2:1986	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60269-3	Low-voltage fuses - Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications) IEC 269-3:1987	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60309-1	Plugs, socket-outlets and couplers for industrial purposes - Part 1: General requirements IEC 309-1:1988 + corrigendum	1991-09-23	C 392 of 1996-12-30

		Mar. 1992, mod. Modified		
CENELEC	EN 60309-2	Plugs, socket-outlets and couplers for industrial purposes - Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories of harmonized configurations  IEC 309-2:1989 + corrigendum Apr. 1992, mod.  Modified	1991-09-23	C 392 of 1996-12-30
CENELEC	EN 60320-1	Appliance couplers for household and similar general purposes  IEC 320:1981 + A1:1984 + A2:1985, mod.  Modified	1986-09-10	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60320-1	Appliance couplers for household and similar general purposes  IEC 320:1981/A3:1987	1989-06-12	C 392 of 1996-12-30
CENELEC	Amendment A11 to EN 60320-1	Appliance couplers for household and similar general purposes	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60320-2-1	Appliance couplers for household and similar general purposes - Part 2: Sewing machine couplers IEC 320-2-1:1984, mod.  Modified	1986-09-10	C 392 of 1996-12-30
CENELEC	EN 60320-2-2	Appliance couplers for household and similar general purposes - Part 2: Interconnection couplers for household and similar equipment  IEC 320-2-2:1990, mod.  Modified	1991-06-25	C 392 of 1996-12-30
CENELEC	EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements	1988-03-02	C 392 of 1996-12-30

		IEC 335-1 Reprint:1983, mod. Modified		
CENELEC	Amendment A2 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements  IEC 335-1:1976/A4:1984, mod. Modified	1988-03-02	C 392 of 1996-12-30
CENELEC	Amendment A5 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements  IEC 335-1 Reprint:1983/A5:1986, mod. Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	Amendment A6 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements  IEC 335-1 Reprint:1983/A6:1988, mod. Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements	1990-12-10	C 392 of 1996-12-30
CENELEC	Amendment A52 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements	1991-09-23	C 392 of 1996-12-30
CENELEC	Amendment A53 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A54 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements	1992-09-15	C 392 of 1996-12-30
CENELEC	Amendment A55 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements	1993-03-09	C 392 of 1996-12-30
CENELEC	Amendment A56 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements	1995-03-20	C 392 of 1996-12-30
CENELEC	EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements  IEC 335-1:1991, mod.	1994-07-05	C 392 of 1996-12-30

		Modified		
CENELEC	Amendment A11 to EN 60335-1	Safety of household and similar electrical appliances - Part 1: General requirements	1995-03-20	C 392 of 1996-12-30
CENELEC	EN 60335-2-2	Safety of household and similar electrical appliances - Part 2: Particular requirements for vacuum cleaners and water suction cleaning appliances  IEC 335-2-2:1993, mod.  Modified	1995	C1996-12-30 125 of 1997-04-22
CENELEC	Amendment A2 to EN 60335-2-2	Safety of household and similar electrical appliances - Part 2: Particular requirements for vacuum cleaners and water suction cleaning appliances  IEC 335-2-2:1983/A1:1987 + A2:1989, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	Amendment A52 to EN 60335-2-2	Safety of household and similar electrical appliances - Part 2: Particular requirements for vacuum cleaners and water suction cleaning appliances	1990-09-11	C 392 of 1996-12-30
CENELEC	Amendment A53 to EN 60335-2-2	Safety of household and similar electrical appliances - Part 2: Particular requirements for vacuum cleaners and water suction cleaning appliances	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60335-2-3	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric irons  IEC 335-2-3:1986, mod.  Modified	1989-06-12	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-3	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric irons  IEC 335-2-3:1986/A1:1989	1991-12-10	C 392 of 1996-12-30
CENELEC	Amendment A52 to EN 60335-2-3	Safety of household and similar electrical appliances - Part 2: Particular requirements for	1992-12-09	C 392 of 1996-12-30

		electric irons		
CENELEC	EN 60335-2-3	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric irons  IEC 335-2-3:1993	1995-05-15	C 392 of 1996-12-30
CENELEC	EN 60335-2-4	Safety of household and similar electrical appliances - Part 2: Particular requirements for spin extractors  IEC 335-2-4:1984 + A1:1987, mod.	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60335-2-4	Safety of household and similar electrical appliances - Part 2: Particular requirements for spin extractors	1991-12-10	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-4	Safety of household and similar electrical appliances - Part 2: Particular requirements for spin extractors	1990-12-10	C 392 of 1996-12-30
CENELEC	EN 60335-2-4	Safety of household and similar electrical appliances - Part 2: Particular requirements for spin extractors  IEC 335-2-4:1993	1995-05-15	C 392 of 1996-12-30
CENELEC	EN 60335-2-5	Safety of household and similar electrical appliances - Part 2: Particular requirements for dishwashers  -2-5:1984, mod.  IEC 335-2-5:1992, mod.	1995	1996-12-30 C 125 of 1997-04-22
CENELEC	Amendment A1 to EN 60335-2-5	Safety of household and similar electrical appliances - Part 2: Particular requirements for dishwashers  IEC 335-2-5:1984/A1:1988, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60335-2-5	Safety of household and similar electrical appliances - Part 2: Particular requirements for dishwashers  IEC 335-2-5:1984/A2:1989	1992-03-24	C 392 of 1996-12-30

		Modifie, mod.		
CENELEC	Amendment A3 to EN 60335-2-5	Safety of household and similar electrical appliances - Part 2: Particular requirements for dishwashers  IEC 335-2-5:1984/A3:1990, mod.  Modified	1992-09-15	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-5	Safety of household and similar electrical appliances - Part 2: Particular requirements for dishwashers	1995-03-06	C 392 of 1996-12-30
CENELEC	EN 60335-2-6	Safety of household and similar electrical appliances - Part 2: Particular requirements for cooking ranges, cooking tables, ovens and similar appliances for household use  IEC 335-2-6:1986 + A1:1988, mod.  Modified	1989-12-05	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60335-2-6	Safety of household and similar electrical appliances - Part 2: Particular requirements for cooking ranges, cooking tables, ovens and similar appliances for household use  IEC 335-2-6:1986/A2:1990, mod.  Modified	1992-12-09	C 392 of 1996-12-30
CENELEC	Amendment A3 to EN 60335-2-6	Safety of household and similar electrical appliances - Part 2: Particular requirements for cooking ranges, cooking tables, ovens and similar appliances for household use  IEC 335-2-6:1986/A3:1992	1993-07-06	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-6	Safety of household and similar electrical appliances - Part 2: Particular requirements for cooking ranges, cooking tables, ovens and similar appliances for household use	1993-03-09	C 392 of 1996-12-30

CENELEC	Amendment A52 to EN 60335-2-6	Safety of household and similar electrical appliances - Part 2: Particular requirements for cooking ranges, cooking tables, ovens and similar appliances for household use	1995-03-23	C 392 of 1996-12-30
CENELEC	Amendment A53 to EN 60335-2-6	Safety of household and similar electrical appliances - Part 2: Particular requirements for cooking ranges, cooking tables, ovens and similar appliances for household use	1995	C 125 of 1997-04-22
CENELEC	EN 60335-2-7	Safety of household and similar electrical appliances - Part 2: Particular requirements for washing machines  IEC 335-2-7:1984, mod.  Modified	1989-06-12	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-7	Safety of household and similar electrical appliances - Part 2: Particular requirements for washing machines  IEC 335-2-7:1984/A1:1988, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60335-2-7	Safety of household and similar electrical appliances - Part 2: Particular requirements for washing machines  IEC 335-2-7:1984/A2:1990, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-7	Safety of household and similar electrical appliances - Part 2: Particular requirements for washing machines	1992-06-16	C 392 of 1996-12-30
CENELEC	Amendment A52 to EN 60335-2-7	Safety of household and similar electrical appliances - Part 2: Particular requirements for washing machines	1995-03-06	C 392 of 1996-12-30
CENELEC	EN 60335-2-8	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric shavers, hair clippers and similar appliances	1995	1996-12-30C 125 of 1997-04-22

		-2-8:1987 Modified IEC 335-2-8:1992, mod.		
CENELEC	EN 60335-2-9	Safety of household and similar electrical appliances - Part 2: Particular requirements for toasters, grills, roasters and similar appliances  IEC 335-2-9:1986, mod.  Modified  Superseded by IEC 335-2-9:1993, mod.	1995	1996-12-30 C 125 of 1997-04-22
CENELEC	Amendment A2 to EN 60335-2-9	Safety of household and similar electrical appliances - Part 2: Particular requirements for toasters, grills, roasters and similar appliances  IEC 335-2-9:1986/A1:1990 + A2:1990, mod.  Modified	1992-09-15	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-9	Safety of household and similar electrical appliances - Part 2: Particular requirements for toasters, grills, roasters and similar appliances	1990-09-11	C 392 of 1996-12-30
CENELEC	EN 60335-2-10	Safety of household and similar electrical appliances - Part 2: Particular requirements for floor treatment machines and wet scrubbing machines  IEC 335-2-10:1987	1990-08-01	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-10	Safety of household and similar electrical appliances - Part 2: Particular requirements for floor treatment machines and wet scrubbing machines	1992-09-15	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-10	Safety of household and similar electrical appliances - Part 2: Particular requirements for floor treatment machines and wet scrubbing machines	1995-03-23	C 392 of 1996-12-30
CENELEC	EN 60335-2-10	Safety of household and similar electrical appliances - Part 2:	1995-05-15	C 392 of 1996-12-30

		Particular requirements for floor treatment machines and wet scrubbing machines  IEC 335-2-10:1992		
CENELEC	EN 60335-2-11	Safety of household and similar electrical appliances - Part 2: Particular requirements for tumbler dryers  -2-11:1984  Modified IEC-335-11:1993, mod.	1995	1996-12-30 C 125 of 1997-04-22
CENELEC	Amendment A1 to EN 60335-2-11	Safety of household and similar electrical appliances - Part 2: Particular requirements for tumbler dryers  IEC 335-2-11:1979/A1:1989  Modified	1990-06-11	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60335-2-11	Safety of household and similar electrical appliances - Part 2: Particular requirements for tumbler dryers  IEC 335-2-11:1984/A2:1991  Modified	1992-09-15	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-11	Safety of household and similar electrical appliances - Part 2: Particular requirements for tumbler dryers	1993-03-09	C 392 of 1996-12-30
CENELEC	Amendment A52 to EN 60335-2-11	Safety of household and similar electrical appliances - Part 2: Particular requirements for tumbler dryers	1995-03-06	C 392 of 1996-12-30
CENELEC	EN 60335-2-12	Safety of household and similar electrical appliances - Part 2: Particular requirements for warming plates and similar appliances  IEC 335-2-12:1992	1995-05-15	C 392 of 1996-12-30
CENELEC	EN 60335-2-13	Safety of household and similar electrical appliances - Part 2: Particular requirements for frying pans, deep fat fryers and similar appliances  IEC 335-2-13:1987, mod.	1989-09-11	C 392 of 1996-12-30

		Modified		
CENELEC	Amendment A1 to EN 60335-2-13	Safety of household and similar electrical appliances - Part 2: Particular requirements for frying pans, deep fat fryers and similar appliances  IEC 335-2-13:1987/A1:1990	1992-09-15	C 392 of 1996-12-30
CENELEC	EN 60335-2-14	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric kitchen machines  IEC 335-2-14:1984, mod.  Modified	1988-03-01	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-14	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric kitchen machines  IEC 335-2-14:1984/A1:1989, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-14	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric kitchen machines	1990-12-10	C 392 of 1996-12-30
CENELEC	Amendment A52 to EN 60335-2-14	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric kitchen machines	1992-12-09	C 392 of 1996-12-30
CENELEC	Amendment A53 to EN 60335-2-14	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric kitchen machines	1993-12-08	C 392 of 1996-12-30
CENELEC	Amendment A54 to EN 60335-2-14	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric kitchen machines	1995-03-06	C 392 of 1996-12-30
CENELEC	EN 60335-2-15	Safety of household and similar electrical appliances - Part 2: Particular requirements for appliances for heating liquids  (Corrigendum August 1994)  IEC 335-2-15:1986, mod.	1990-03-05	C 392 of 1996-12-30

		Modified		
CENELEC	Amendment A1 to EN 60335-2-15	Safety of household and similar electrical appliances - Part 2: Particular requirements for appliances for heating liquids  IEC 335-2-15:1986/A1:1988, mod.  Modified	1991-03-15	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60335-2-15	Safety of household and similar electrical appliances - Part 2: Particular requirements for appliances for heating liquids  IEC 335-2-15:1986/A2:1990, mod.  Modified	1991-09-23	C 392 of 1996-12-30
CENELEC	Amendment A3 to EN 60335-2-15	Safety of household and similar electrical appliances - Part 2: Particular requirements for appliances for heating liquids  IEC 335-2-15:1986/A3:1992	1993-07-06	C 392 of 1996-12-30
CENELEC	Amendment A52 to EN 60335-2-15	Safety of household and similar electrical appliances - Part 2: Particular requirements for appliances for heating liquids	1992-12-09	C 392 of 1996-12-30
CENELEC	EN 60335-2-16	Safety of household and similar electrical appliances - Part 2: Particular requirements for food waste disposers  IEC 335-2-16:1986, mod.  Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	EN 60335-2-19	Safety of household and similar electrical appliances - Part 2: Particular requirements for battery-powered shavers, hair clippers and similar appliances and their charging and battery assemblies IEC 335-2-19:1984, mod.  Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	EN 60335-2-20	Safety of household and similar electrical appliances - Part 2: Particular requirements for battery-powered tooth-brushes	1989-03-07	C 392 of 1996-12-30

		and their charging and battery assemblies  IEC 335-2-20:1984, mod.  Modified		
CENELEC	EN 60335-2-21	Safety of household and similar electrical appliances - Part 2: Particular requirements for storage water heaters  IEC 335-2-21:1989 + A1:1990 + A2:1990, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A3 to EN 60335-2-21	Safety of household and similar electrical appliances - Part 2: Particular requirements for storage water heaters  IEC 335-2-21:1986/A3:1995	1995-03-06	C 392 of 1996-12-30
CENELEC	EN 60335-2-23	Safety of household and similar electrical appliances - Part 2: Particular requirements for appliances for skin or hair care  IEC 335-2-23:1986, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-23	Safety of household and similar electrical appliances - Part 2: Particular requirements for appliances for skin or hair care  IEC 335-2-23:1986/A1:1990	1992-09-15	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-23	Safety of household and similar electrical appliances - Part 2: Particular requirements for appliances for skin or hair care	1992-12-09	C 392 of 1996-12-30
CENELEC	EN 60335-2-24	Safety of household and similar electrical appliances - Part 2: Particular requirements for refrigerators, food-freezers and ice-makers  IEC 335-2-24:1992, mod.  Modified	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60335-2-25	Safety of household and similar electrical appliances - Part 2: Particular requirements for	1995	1996-12-30C 125 of 1997-04-22

		micro-wave ovens -2-25:1988 + A1:1989 Modified IEC 335-2-25:1993, mod.		
CENELEC	Amendment A2 to EN 60335-2-25	Safety of household and similar electrical appliances - Part 2: Particular requirements for micro-wave ovens  IEC 335-2-25:1988/A2:1991, mod.  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-25	Safety of household and similar electrical appliances - Part 2: Particular requirements for micro-wave ovens	1991-12-10	C 392 of 1996-12-30
CENELEC	EN 60335-2-26	Safety of household and similar electrical appliances - Part 2: Particular requirements for clocks  IEC 335-2-26:1987, mod.  Modified	1989-12-05	C 392 of 1996-12-30
CENELEC	EN 60335-2-27	Safety of household and similar electrical appliances - Part 2: Particular requirements for ultra-violet and infra-red radiation skin treatment appliances for household and similar use  IEC 335-2-27:1987 + A1:1989, mod.  Modified	1991-09-23	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60335-2-27	Safety of household and similar electrical appliances - Part 2: Particular requirements for ultra-violet and infra-red radiation skin treatment appliances for household and similar use  IEC 335-2-27:1987/A2:1991	1992-09-15	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-27	Safety of household and similar electrical appliances - Part 2: Particular requirements for	1993-12-08	C 392 of 1996-12-30

		ultra-violet and infra-red radiation skin treatment appliances for household and similar use		
CENELEC	EN 60335-2-28	Safety of household and similar electrical appliances - Part 2: Particular requirements for sewing machines  IEC 335-2-28:1987, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	EN 60335-2-29	Safety of household and similar electrical appliances - Part 2: Particular requirements for battery chargers  IEC 335-2-29:1987 + A1:1989, mod.  Modified	1990-06-11	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60335-2-29	Safety of household and similar electrical appliances - Part 2: Particular requirements for battery chargers  IEC 335-2-29:1987/A2:1991, mod.  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60335-2-30	Safety of household and similar electrical appliances - Part 2: Particular requirements for room heaters  IEC 335-2-30:1990 + A1:1990, mod.  Modified	1992-12-09	C 392 of 1996-12-30
CENELEC	EN 60335-2-31	Safety of household and similar electrical appliances - Part 2: Particular requirements for range hoods  IEC 335-2-31:1988, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-31	Safety of household and similar electrical appliances - Part 2: Particular requirements for range hoods	1990-12-12	C 392 of 1996-12-30

		IEC 335-2-31:1988/A1:1990, mod.  Modified		
CENELEC	Amendment A51 to EN 60335-2-31	Safety of household and similar electrical appliances - Part 2: Particular requirements for range hoods	1995-03-24	C 392 of 1996-12-30
CENELEC	EN 60335-2-32	Safety of household and similar electrical appliances - Part 2: Particular requirements for massage appliances  -2-32:1987  Modified IEC 335-2-32:1993	1995	1996-12-30C 125 of 1997-04-22
CENELEC	EN 60335-2-33	Safety of household and similar electrical appliances - Part 2: Particular requirements for coffee mills and coffee grinders  IEC 335-2-33:1987, mod.  Modified	1989-06-12	C 392 of 1996-12-30
CENELEC	EN 60335-2-35	Safety of household and similar electrical appliances - Part 2: Particular requirements for instantaneous water heaters  IEC 335-2-35:1991, mod.  Modified	1994-10-04	C 392 of 1996-12-30
CENELEC	Amendment A 51 to EN 60335-2-35	Safety of household and similar electrical appliances - Part 2: Particular requirements for instantaneous water heaters	1995	1996-12-30C 125 of 1997-04-22
CENELEC	EN 60335-2-36	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric ranges, ovens and hob elements  IEC 335-2-36:1986, mod.  Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-36	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob	1992-03-24	C 392 of 1996-12-30

		elements  IEC 335-2-36:1986/A1:1990, mod.  Modified		
CENELEC	Amendment A51 to EN 60335-2-36	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements	1990-06-11	C 392 of 1996-12-30
CENELEC	EN 60335-2-36	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric cooking ranges, ovens, hobs and hob elements  IEC 335-2-36:1993, mod.  Modified	1995-05-15	C 392 of 1996-12-30
CENELEC	EN 60335-2-37	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric deep fat fryers  IEC 335-2-37:1986, mod.  Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-37	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric deep fat fryers  IEC 335-2-37:1986/A1:1990, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-37	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric deep fat fryers	1992-09-15	C 392 of 1996-12-30
CENELEC	EN 60335-2-38	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric griddles and griddle grills	1989-03-07	C 392 of 1996-12-30

		IEC 335-2-38:1986, mod.  Modified		
CENELEC	Amendment A1 to EN 60335-2-38	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric griddles and griddle grills  IEC 335-2-38:1986/A1:1990, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-38	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric griddles and griddle grills	1992-09-15	C 392 of 1996-12-30
CENELEC	EN 60335-2-39	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric multi-purpose cooking pans  IEC 335-2-39:1986, mod.  Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-39	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric multi-purpose cooking pans  IEC 335-2-39:1986/A1:1990, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-39	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric multi-purpose cooking pans	1990-06-11	C 392 of 1996-12-30
CENELEC	EN 60335-2-40	Safety of household and similar electrical appliances - Part 2: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers (Corrigendum August 1994)	1993-03-09	C 392 of 1996-12-30

		IEC 335-2-40:1992, mod. Modified		
CENELEC	EN 60335-2-41	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric pumps for liquids having a temperature not exceeding 35C  IEC 335-2-41:1984, mod. Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-41	IEC 335-2-41:1984/A1:1990, mod. Modified	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60335-2-42	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric forced convection ovens  IEC 335-2-42:1987, mod. Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-42	IEC 335-2-42:1987/A1:1990 Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	EN 60335-2-43	Safety of household and similar electrical appliances - Part 2: Particular requirements for clothes dryers and towel rails  IEC 335-2-43:1984, mod. Modified	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-43	Safety of household and similar electrical appliances - Part 2: Particular requirements for clothes dryers and towel rails  IEC 335-2-43:1984/A1:1988, mod; Modified	1989-11-01	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-43	Safety of household and similar electrical appliances - Part 2: Particular requirements for clothes dryers and towel rails	1992-06-16	C 392 of 1996-12-30
CENELEC	EN 60335-2-44	Safety of household and similar	1990-06-11	C 392 of

		electrical appliances - Part 2: Particular requirements for electric ironers  IEC 335-2-44:1987, mod.  Modified		1996-12-30
CENELEC	EN 60335-2-45	Safety of household and similar electrical appliances - Part 2: Particular requirements for portable electric heating tools and similar appliances  IEC 335-2-45:1986, mod.  Modified	1989-06-12	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-45	Safety of household and similar electrical appliances - Part 2: Particular requirements for portable electric heating tools and similar appliances  IEC 335-2-45:1986/A1:1990, mod.  Modified	1992-12-09	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-45	Safety of household and similar electrical appliances - Part 2: Particular requirements for portable electric heating tools and similar appliances	1993-07-06	C 392 of 1996-12-30
CENELEC	EN 60335-2-46	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric steam cookers  IEC 335-2-46:1986, mod.  Modified	1989-03-07	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-46	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric steam cookers  IEC 335-2-46:1986/A1:1990, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	EN 60335-2-47	Safety of household and similar	1990-03-05	C 392 of

		electrical appliances - Part 2: Particular requirements for commercial electric boiling pans  IEC 335-2-47:1987, mod.  Modified		1996-12-30
CENELEC	Amendment A1 to EN 60335-2-47	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric boiling pans  IEC 335-2-47:1987/A1:1990, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A52 to EN 60335-2-47	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric boiling pans	1991-09-23	C 392 of 1996-12-30
CENELEC	EN 60335-2-48	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric grillers and toasters  IEC 335-2-48:1988, mod.  Modified	1990-09-11	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-48	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric grillers and toasters  IEC 335-2-48:1988/A1:1990, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	EN 60335-2-49	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial catering electric hot cupboards  IEC 335-2-49:1988, mod.  Modified	1990-09-11	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-49	Safety of household and similar electrical appliances - Part 2: Particular requirements for	1992-03-24	C 392 of 1996-12-30

		commercial catering electric hot cupboards  IEC 335-2-49:1988/A1:1990, mod.  Modified		
CENELEC	EN 60335-2-50	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric bains-marie  IEC 335-2-50:1989, mod.  Modified	1990-12-10	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60335-2-50	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric bains-marie  IEC 335-2-50:1989/A1:1990, mod;  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	EN 60335-2-51	Safety of household and similar electrical appliances - Part 2: Particular requirements for stationary circulation pumps for heating and service water installations  IEC 335-2-51:1988, mod;  Modified	1990-06-11	C 392 of 1996-12-30
CENELEC	EN 60335-2-52	Safety of household and similar electrical appliances - Part 2: Particular requirements for oral hygiene appliances connected to the mains supply through a safety isolating transformer  IEC 335-2-52:1988, mod.  Modified	1990-06-11	C 392 of 1996-12-30
CENELEC	EN 60335-2-53	Safety of household and similar electrical appliances - Part 2: Particular requirements for electric sauna heating appliances  IEC 335-2-53:1988, mod.	1990-09-11	C 392 of 1996-12-30

		Modified		
CENELEC	EN 60335-2-54	Safety of household and similar electrical appliances - Part 2: Particular requirements for general purpose cleaning appliances  IEC 335-2-54:1988, mod.  Modified	1990-06-11	C 392 of 1996-12-30
CENELEC	EN 60335-2-55	Safety of household and similar electrical appliances - Part 2: Particular requirements for electrical appliances for use with aquariums and garden ponds IEC 335-2-55:1989, mod.  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60335-2-56	Safety of household and similar electrical appliances - Part 2: Particular requirements for projectors and similar appliances  IEC 335-2-56:1990, mod;  Modified	1990-09-11	C 392 of 1996-12-30
CENELEC	EN 60335-2-57	Safety of household and similar electrical appliances - Part 2: Particular requirements for ice-cream appliances with incorporated motor-compressors  IEC 335-2-57:1989, mod.  Modified	1991-12-10	C 392 of 1996-12-30
CENELEC	EN 60335-2-58	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric dishwashing machines  IEC 335-2-58:1990, mod.  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60335-2-59	Safety of household and similar electrical appliances - Part 2: Particular requirements for insect killers  IEC 335-2-59:1990, mod.	1994-07-05	C 392 of 1996-12-30

		Modified		
CENELEC	EN 60335-2-60	Safety of household and similar electrical appliances - Part 2: Particular requirements for whirlpool baths and similar equipment  IEC 335-2-60:1990, mod.  Modified	1990-12-10	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60335-2-60	Safety of household and similar electrical appliances - Part 2: Particular requirements for whirlpool baths and similar equipment	1993-07-06	C 392 of 1996-12-30
CENELEC	Amendment A52 to EN 60335-2-60	Safety of household and similar electrical appliances - Part 2: Particular requirements for whirlpool baths and similar equipment	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60335-2-62	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric rinsing sinks  IEC 335-2-62:1990, mod.  Modified	1992-06-16	C 392 of 1996-12-30
CENELEC	EN 60335-2-63	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric water boilers and liquid heaters  IEC 335-2-63:1990, mod.  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60335-2-64	Safety of household and similar electrical appliances - Part 2: Particular requirements for commercial electric kitchen machines  IEC 335-2-64:1991, mod;  Modified	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60335-2-65	Safety of household and similar electrical appliances - Part 2: Particular requirements for	1995	C 125 of 1997-04-22

		air-cleaning appliances IEC 335-2-65:1993, mod.		
CENELEC	EN 60335-2-66	Safety of household and similar electrical appliances - Part 2: Particular requirements for water-bed heaters IEC 335-2-66:1993	1995	C 125 of 1997-04-22
CENELEC	EN 60335-2-67	Safety of household and similar electrical appliances - Part 2: Particular requirements for floor treatment and floor cleaning machines, for industrial and commercial use IEC 335-2-67:1992	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60335-2-68	Safety of household and similar electrical appliances - Part 2: Particular requirements for spray extraction appliances, for industrial and commercial use IEC 335-2-68:1992	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60335-2-69	Safety of household and similar electrical appliances - Part 2: Particular requirements for wet and dry vacuum cleaners including power brush, for industrial and commercial use IEC 335-2-69:1992, mod.	1995	C 125 of 1997-04-22
CENELEC	EN 60335-2-71	Safety of household and similar electrical appliances - Part 2: Particular requirements for electrical heating appliances for breeding and rearing animals IEC 335-2-71:1993, mod.	1995	C 125 of 1997-04-22
CENELEC	EN 60357	Tungsten halogen lamps (non-vehicle) IEC 357:1982 + A1:1984, mod. Modified	1986-09-10	C 392 of 1996-12-30
CENELEC	Amendment A4 to EN 60357	Tungsten halogen lamps (non-vehicle) IEC 357:1982/A2:1985 + A3:1987 + A4:1989, mod.	1991-03-15	C 392 of 1996-12-30

		Modified		
CENELEC	Amendment A5 to EN 60357	Tungsten halogen lamps (non-vehicle)  IEC 357:1982/A5:1992 + corrigenda Jun. 1992 + Nov. 1992	1993-09-22	C 392 of 1996-12-30
CENELEC	Amendment A6 to EN 60357	Tungsten halogen lamps (non-vehicle)  IEC 357:1982/A6:1993	1994-05-15	C 392 of 1996-12-30
CENELEC	Amendment A7 to EN 60357	Tungsten halogen lamps (non-vehicle)  IEC 357:1982/A7:1994	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60360	Standard method of measurement of lamp cap temperature rise  IEC 360:1987	1989-01-24	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60360	Standard method of measurement of lamp cap temperature rise  IEC 360:1987/A1: 1993	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60400	Lampholders for tubular fluorescent lamps and starterholders (Corrigendum June 1992)  IEC 400:1991, mod.  Modified	1991-12-10	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60400	Lampholders for tubular fluorescent lamps and starterholders  IEC 400:1991/A1:1993	1993-12-08	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60400	Lampholders for tubular fluorescent lamps and starterholders  IEC 400:1991/A2:1994	1995-02-15	C 392 of 1996-12-30
CENELEC	EN 60432-1	Safety specifications for incandescent lamps - Part 1: Tungsten filament lamps for domestic and similar general lighting purposes	1994-12-06	C 392 of 1996-12-30

		IEC 432-1:1993, mod. Modified		
CENELEC	EN 60432-2	Safety specifications for incandescent lamps - Part 2: Tungsten halogen lamps for domestic and similar general lighting purposes  IEC 432-2:1994, mod.  Modified	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 60439-1	Low-voltage switchgear and controlgear assemblies - Part 1: Type-tested and partially type-tested assemblies  IEC 439-1:1992 + corrigendum Dec. 1993	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60439-2	Low-voltage switchgear and controlgear assemblies - Part 2: Particular requirements for busbar trunking systems (busways)  IEC 439-2:1987 + A1:1991, mod.  Modified	1991-12-10	C 392 of 1996-12-30
CENELEC	EN 60439-3	Low-voltage switchgear and controlgear assemblies - Part 3: Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use - Distribution boards  IEC 439-3:1990, mod.  Modified	1990-12-10	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60439-3	Low-voltage switchgear and controlgear assemblies - Part 3: Particular requirements for low-voltage switchgear and controlgear assemblies intended to be installed in places where unskilled persons have access for their use - Distribution boards  IEC 439-3:1990/A1:1993	1993-12-08	C 392 of 1996-12-30

CENELEC	EN 60439-4	Low-voltage switchgear and controlgear assemblies - Part 4: Particular requirements for assemblies for construction sites (ACS)  IEC 439-4:1990	1990-12-10	C 392 of 1996-12-30
CENELEC	EN 60519-1	Safety in electroheat installations - Part 1: General requirements  IEC 519-1:1984	1993-07-06	C 392 of 1996-12-30
CENELEC	EN 60519-2	Safety in electroheat installations - Part 2: Particular requirements for resistance heating equipment  IEC 519-2:1992	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60529	Degrees of protection provided by enclosures (IP Code)  IEC 529:1989	1991-06-25	C 392 of 1996-12-30
CENELEC	EN 60564	D.C. bridges for measuring resistance  IEC 564:1977 + A1:1981	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60570	Electrical supply track systems for luminaires  IEC 570:1985 + A2:1993  Modified	1993-07-06	C 392 of 1996-12-30
CENELEC	EN 60570-2-1	Electrical supply track systems for luminaires - Part 2: Mixed supply systems - Section 1: Classes I and III  IEC 570-2-1:1994	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 60598-1	Luminaires - Part 1: General requirements and tests IEC 598-1:1992  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60598-2-1	Luminaires - Part 2: Particular requirements - Section 1: Fixed general purpose luminaires  IEC 598-2-1:1979 + A1:1987	1988-09-13	C 392 of 1996-12-30
CENELEC	EN 60598-2-2	Luminaires - Part 2: Particular requirements - Section 2: Recessed luminaires	1988-09-13	C 392 of 1996-12-30

		IEC 598-2-2:1979 + A1:1987, mod.  Modified		
CENELEC	EN 60598-2-3	Luminaires - Part 2: Particular requirements - Section 3: Luminaires for road and street lighting  IEC 598-2-3:1993	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60598-2-4	Luminaires - Part 2: Particular requirements - Section 4: Portable general purpose luminaires  IEC 598-2-4:1979 + A1:1983 + A2:1987  Modified	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A3 to EN 60598-2-4	Luminaires - Part 2: Particular requirements - Section 4: Portable general purpose luminaires  IEC 598-2-4:1979/A3:1990	1992-12-09	C 392 of 1996-12-30
CENELEC	EN 60598-2-5	Luminaires - Part 2: Particular requirements - Section 5: Floodlights  IEC 598-2-5:1979 + A1:1987	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60598-2-5	Luminaires - Part 2: Particular requirements - Section 5: Floodlights  IEC 598-2-5:1979/A2:1993	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60598-2-6	Luminaires - Part 2: Particular requirements - Section 6: Luminaires with built-in transformers for filament lamps  IEC 598-2-6:1979 + A1:1987	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60598-2-6	Luminaires - Part 2: Particular requirements - Section 6: Luminaires with built-in transformers for filament lamps  IEC 598-2-6:1979/A2:1990	1991-06-25	C 392 of 1996-12-30
CENELEC	EN 60598-2-6	Luminaires - Part 2: Particular requirements - Section 6: Luminaires with built-in transformers for filament lamps	1994-07-05	C 392 of 1996-12-30

		IEC 598-2-6:1994		
CENELEC	EN 60598-2-7	Luminaires - Part 2: Particular requirements - Section 7: Portable luminaires for garden use  IEC 598-2-7:1982 + A1:1987, mod.  Modified	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A12 to EN 60598-2-7	Luminaires - Part 2: Particular requirements - Section 7: Portable luminaires for garden use	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60598-2-8	Luminaires - Part 2: Particular requirements - Section 8: Handlamps  IEC 598-2-8:1981 + A1:1987, mod.  Modified	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60598-2-8	Luminaires - Part 2: Particular requirements - Section 8: Handlamps  IEC 598-2-8:1981/A2:1990, mod.  Modified	1993-07-06	C 392 of 1996-12-30
CENELEC	EN 60598-2-9	Luminaires - Part 2: Particular requirements - Section 9: Photo and film luminaires (non-professional)  IEC 598-2-9:1987	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60598-2-9	Luminaires - Part 2: Particular requirements - Section 9: Photo and film luminaires (non-professional)  IEC 598-2-9:1987/A1:1993	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60598-2-10	Luminaires - Part 2: Particular requirements - Section 10: Portable child-appealing luminaires  IEC 598-2-10:1987	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN	Luminaires - Part 2: Particular requirements - Section 10:	1991-06-25	C 392 of 1996-12-30

	60598-2-10	Portable child-appealing luminaires  IEC 598-2-10:1987/A1:1990		
CENELEC	Amendment A2 to EN 60598-2-10	Luminaires - Part 2: Particular requirements - Section 10: Portable child-appealing luminaires  IEC 598-2-10:1987/A2:1995	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60598-2-17	Luminaires - Part 2: Particular requirements - Section 17: Luminaires for stage lighting, television film and photographic studios (outdoor and indoor)  IEC 598-2-17:1984 + A1:1987	1988-09-13	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60598-2-17	Luminaires - Part 2: Particular requirements - Section 17: Luminaires for stage lighting, television film and photographic studios (outdoor and indoor)  IEC 598-2-17:1984/A2:1990	1991-06-25	C 392 of 1996-12-30
CENELEC	EN 60598-2-18	Luminaires - Part 2: Particular requirements - Section 18: Luminaires for swimming pools and similar applications  IEC 598-2-18:1993, mod.  Modified	1994-05-15	C 392 of 1996-12-30
CENELEC	EN 60598-2-19	Luminaires - Part 2: Particular requirements - Section 19: Air-handling luminaires (safety requirements)  IEC 598-2-19:1981 + A1:1987, mod.  Modified	1988-09-13	C 392 of 1996-12-30
CENELEC	EN 60598-2-20	Luminaires - Part 2: Particular requirements - Section 20: Lighting chains  IEC 598-2-20:1982 + A1:1987, mod.  Modified	1990-12-10	C 392 of 1996-12-30
CENELEC	Amendment A11 to EN	Luminaires - Part 2: Particular requirements - Section 20:	1992-03-24	C 392 of 1996-12-30

	60598-2-20	Lighting chains		
CENELEC	EN 60598-2-22	Luminaires - Part 2: Particular requirements - Section 22: Luminaires for emergency lighting  IEC 598-2-22:1990, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	EN 60598-2-25	Luminaires - Part 2: Particular requirements - Section 25: Luminaires for use in clinical areas of hospitals and health care buildings  IEC 598-2-25:1994 + corrigendum Sep. 1994	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 60645-1	Audiometers - Part 1: Pure-tone audiometers  IEC 645-1:1992 + corrigendum Feb. 1993	1994-07-05	C 392 of 1996-12-30
CENELEC	EN 60645-3	Audiometers - Part 3: Auditory test signals of short duration for audiometric and neuro-otological purposes  IEC 645-3:1994	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60645-4	Audiometers - Part 4: Equipment for extended high-frequency audiometry  IEC 645-4:1994	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60651	Sound level meters  IEC 651:1979	1993-12-08	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60651	Sound level meters  IEC 651:1979/A1:1993	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60662	High-pressure sodium vapour lamps  IEC 662:1980 + A2:1987 + A3:1990	1992-12-09	C 392 of 1996-12-30
CENELEC	Amendment A4 to EN 60662	High-pressure sodium vapour lamps  IEC 662:1980/A4:1992	1994-03-08	C 392 of 1996-12-30
CENELEC	Amendment A5 to EN	High-pressure sodium vapour lamps	1994-07-05	C 392 of 1996-12-30

	60662	IEC 662:1980/A5:1993		
CENELEC	Amendment A6 to EN 60662	High-pressure sodium vapour lamps IEC 662:1980/A6:1994	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60669-1	Switches for household and similar fixed electrical installations - Part 1: general requirements IEC 669-1:1993, mod.	1995	C 125 of 1997-04-22
CENELEC	EN 60691	Requirements and application guide for thermal-links IEC 691:1980, mod. Modified	1986-02-27	C 392 of 1996-12-30
CENELEC	EN 60695-1-1	Fire hazard testing - Part 1: Guidance for assessing fire hazard of electrotechnical products - Section 1: General guidance IEC 695-1-1:1995	1995-07-04	C 392 of 1996-12-30
CENELEC	EN 60695-2-2	Fire hazard testing - Part 2: Test methods - Section 2: Needle-flame test IEC 695-2-2:1991	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60695-2-4/0	Fire hazard testing - Part 2: Test methods - Section 4/sheet 0: Diffusion type and premixed type flame test methods IEC 695-2-4/0:1991	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60695-2-4/1	Fire hazard testing - Part 2: Test methods - Section 4/sheet 1: 1 kW nominal pre-mixed test flame and guidance IEC 695-2-4/1:1991	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60719	Calculation of the lower and upper limits for the average outer dimensions of cables with circular copper conductors and of rated voltages up to and including 450/750 V IEC 719:1992	1993-07-06	C 392 of 1996-12-30

CENELEC	EN 60730-1	Automatic electrical controls for household and similar use - Part 1: General requirements  IEC 730-1:1986, mod.  Modified	1990-09-11	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60730-1	Automatic electrical controls for household and similar use - Part 1: General requirements  IEC 730-1:1986/A1:1990	1990-09-11	C 392 of 1996-12-30
CENELEC	Amendment A11 to EN 60730-1	Automatic electrical controls for household and similar use - Part 1: General requirements	1990-09-11	C 392 of 1996-12-30
CENELEC	Amendment A12 to EN 60730-1	Automatic electrical controls for household and similar use - Part 1: General requirements	1992-12-09	C 392 of 1996-12-30
CENELEC	Amendment A14 to EN 60730-1	Automatic electrical controls for household and similar use - Part 1: General requirements	1995-03-20	C 392 of 1996-12-30
CENELEC	EN 60730-1	Automatic electrical controls for household and similar use - Part 1: General requirements  IEC 730-1:1993, mod.  Modified	1994-07-05	C 392 of 1996-12-30
CENELEC	EN 60730-2-1	Automatic electrical controls for household and similar use - Part 2: Particular requirements for electrical controls for electrical household appliances  IEC 730-2-1:1989, mod.  Modified	1990-09-11	C 392 of 1996-12-30
CENELEC	Amendment A11 to EN 60730-2-1	Automatic electrical controls for household and similar use - Part 2: Particular requirements for electrical controls for electrical household appliances	1991-12-10	C 392 of 1996-12-30
CENELEC	Amendment A12 to EN 60730-2-1	Automatic electrical controls for household and similar use - Part 2: Particular requirements for electrical controls for electrical household appliances	1993-03-09	C 392 of 1996-12-30
CENELEC	Amendment A13 to EN 60730-2-1	Automatic electrical controls for household and similar use - Part 2: Particular requirements for	1995-02-15	C 392 of 1996-12-30

		electrical controls for electrical household appliances		
CENELEC	EN 60730-2-2	Automatic electrical controls for household and similar use - Part 2: Particular requirements for thermal motor protectors  IEC 730-2-2:1990, mod.  Modified	1991-05-01	C 392 of 1996-12-30
CENELEC	Amendment A11 to EN 60730-2-2	Automatic electrical controls for household and similar use - Part 2: Particular requirements for thermal motor protectors	1995-02-15	C 392 of 1996-12-30
CENELEC	EN 60730-2-3	Automatic electrical controls for household and similar use - Part 2: Particular requirements for thermal protectors for ballasts for tubular fluorescent lamps  IEC 730-2-3:1990, mod.  Modified	1991-12-10	C 392 of 1996-12-30
CENELEC	EN 60730-2-4	Automatic electrical controls for household and similar use - Part 2: Particular requirements for thermal motor protectors for motor-compressors of hermetic and semi-hermetic type  IEC 730-2-4:1990, mod;  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60730-2-5	Automatic electrical controls for household and similar use - Part 2: Particular requirements for automatic electrical burner control systems  IEC 730-2-5:1993, mod;  Modified	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60730-2-6	Automatic electrical controls for household and similar use - Part 2: Particular requirements for automatic electrical pressure sensing controls including mechanical requirements  IEC 730-2-6:1991, mod.	1994-09-01	C 392 of 1996-12-30

		Modified		
CENELEC	EN 60730-2-7	Automatic electrical controls for household and similar use - Part 2: Particular requirements for timers and time switches  IEC 730-2-7:1990, mod.  Modified	1991-09-23	C 392 of 1996-12-30
CENELEC	Amendment A11 to EN 60730-2-7	Automatic electrical controls for household and similar use - Part 2: Particular requirements for timers and time switches	1994-03-08	C 392 of 1996-12-30
CENELEC	Amendment A12 to EN 60730-2-7	Automatic electrical controls for household and similar use - Part 2: Particular requirements for timers and time switches	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60730-2-8	Automatic electrical controls for household and similar use - Part 2: Particular requirements for electrically operated water valves, including mechanical requirements  IEC 730-2-8:1992, mod.  Modified	1994-09-01	C 392 of 1996-12-30
CENELEC	EN 60730-2-9	Automatic electrical controls for household and similar use - Part 2: Particular requirements for temperature sensing controls  IEC 730-2-9:1992, mod.  Modified	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 60730-2-10	Automatic electrical controls for household and similar use - Part 2: Particular requirements for motor starting relays  IEC 730-2-10:1991, mod.  Modified	1994-09-01	C 392 of 1996-12-30
CENELEC	EN 60730-2-11	Automatic electrical controls for household and similar use - Part 2: Particular requirements for energy regulators  IEC 730-2-11:1993	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60730-2-12	Automatic electrical controls for household and similar use - Part	1993-09-22	C 392 of 1996-12-30

		2: Particular requirements for electrically operated door locks  IEC 730-2-12:1993		
CENELEC	EN 60730-2-15	Automatic electrical controls for household and similar use - Part 2: Particular requirements for automatic electrical water level sensing controls of the float or electrode-sensor type used in boiler applications  IEC 730-2-15:1994	1995-03-06	C 392 of 1996-12-30
CENELEC	EN 60742	Isolating transformers and safety isolating transformers - Requirements  IEC 742:1983 + A1:1992, mod.  Modified	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60799	Cord sets  IEC 799:1984, mod.  Modified	1986-02-27	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60799	Cord sets  IEC 799:1984/A1:1993, mod.  Modified	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60804	Integrating-averaging sound level meters  IEC 804:1985 + A1:1989	1993-12-08	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60804	Integrating-averaging sound level meters  IEC 804:1985/A2:1993	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60825-1	Safety of laser products - Part 1: Equipment classification , requirements and user's guide  IEC 825-1:1993	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60825-2	Safety of laser products - Part 2: Safety of optical fibre communication systems  IEC 825-2:1993	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60831-1	Shunt power capacitors of the self-healing type for a.c. systems	1993-09-22	C 392 of 1996-12-30

		<p>having a rated voltage up to and including 1000 V - Part 1: General - Performance, testing and rating - Safety requirements - Guide for installation and operation</p> <p>IEC 831-1:1988 + corrigendum Jan. 1989 + A1:1991 + A2:1993, mod.</p> <p>Modified</p>		
CENELEC	EN 60831-2	<p>Shunt power capacitors of the self-healing type for a.c. systems having a rated voltage up to and including 1000 V - Part 2: Ageing test, self-healing test and destruction test</p> <p>IEC 831-2:1988 + A1:1991 + A2:1993, mod.</p> <p>Modified</p>	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60838-1	<p>Miscellaneous lampholders - Part 1: General requirements and tests</p> <p>IEC 838-1:1993 + corrigendum Aug. 1993</p>	1994-05-15	C 392 of 1996-12-30
CENELEC	EN 60898	<p>Circuit-breakers for overcurrent protection for household and similar installations</p> <p>IEC 898:1987 + corrigendum May 1988 + A2:1990 + A3:1990 + corrigendum Aug. 1990</p>	1990-03-05	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60898	<p>Circuit-breakers for overcurrent protection for household and similar installations</p> <p>IEC 898:1987/A1:1989</p>	1991-06-25	C 392 of 1996-12-30
CENELEC	Amendment A11 to EN 60898	<p>Circuit-breakers for overcurrent protection for household and similar installations</p>	1994-07-05	C 392 of 1996-12-30
CENELEC	Amendment A12 to EN 60898	<p>Circuit-breakers for overcurrent protection for household and similar installations</p>	1995	C 125 of 1997-04-22
CENELEC	Amendment A13 to EN 60898	<p>Circuit-breakers for overcurrent protection for household and similar installations</p>	1994	C 125 of 1997-04-22

CENELEC	Amendment A14 to EN 60898	Circuit-breakers for overcurrent protection for household and similar installations	1995	C 125 of 1997-04-22
CENELEC	EN 60901	Single-capped fluorescent lamps - Safety and performance requirements  (Corrigendum June 1992)  IEC 901:1987	1989-06-12	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60901	Single-capped fluorescent lamps - Safety and performance requirements  IEC 901:1987/A1:1989	1990-06-11	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60901	Single-capped fluorescent lamps - Safety and performance requirements  IEC 901:1987/A2:1992	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60920	Ballast for tubular fluorescent lamps - General and safety requirements  IEC 920:1990	1991-03-15	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60920	Ballast for tubular fluorescent lamps - General and safety requirements  IEC 920:1990/A1:1993	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60922	Ballasts for discharge lamps (excluding tubular fluorescent lamps) - General and safety requirements  IEC 922:1989	1990-06-11	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60922	Ballasts for discharge lamps (excluding tubular fluorescent lamps) - General and safety requirements  IEC 922:1989/A2:1992	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60924	DC supplied electronic ballasts for tubular fluorescent lamps - General and safety requirements IEC 924:1990	1990-12-10	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60924	DC supplied electronic ballasts for tubular fluorescent lamps - General and safety requirements IEC 924:1990/A1:1993	1993-12-08	C 392 of 1996-12-30

CENELEC	EN 60926	Starting devices (other than glow starters) - General and safety requirements  IEC 926:1990, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60926	Starting devices (other than glow starters) - General and safety requirements  IEC 926:1990/A1:1992 + A2:1993	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60928	A.C. supplied electronic ballasts for tubular fluorescent lamps - General and safety requirements IEC 928:1990	1991-03-15	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60928	Auxiliaries for lamps - A.C. supplied electronic ballasts for tubular fluorescent lamps - General and safety requirements  IEC 928:1990/A1:1992 + A2:1993	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60928	Auxiliaries for lamps - A.C. supplied electronic ballasts for tubular fluorescent lamps - General and safety requirements  IEC 928:1995	1995-05-15	C 392 of 1996-12-30
CENELEC	EN 60931-1	Shunt power capacitors of the non-self-healing type for a.c. systems having a rated voltage up to and including 1000 V - Part 1: General - Performance, testing and rating - Safety requirements - Guide for installation and operation  IEC 931-1:1989 + A1:1991, mod.  Modified	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60931-2	Shunt power capacitors of the non-self-healing type for a.c. systems having a rated voltage up to and including 1000 V - Part 2: Ageing test and destruction test  IEC 931-2:1992	1993-09-22	C 392 of 1996-12-30

CENELEC	EN 60934	Circuit-breakers for equipment (CBE)  IEC 934:1993, mod.  Modified	1993-12-08	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60934	Circuit-breakers for equipment (CBE)  IEC 934:1993/A1:1994	1994-09-01	C 392 of 1996-12-30
CENELEC	EN 60947-1	Low-voltage switchgear and controlgear - Part 1: General rules (Corrigendum January 1992)  IEC 947-1:1988, mod.	1991-03-15	C 392 of 1996-12-30
CENELEC	Amendment A11 to EN 60947-1	Low voltage switchgear and controlgear - Part 1: General rules	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 60947-2	Low-voltage switchgear and controlgear - Part 2: Circuit-breakers  IEC 947-2:1989 + corrigenda Jun. 1989 + Apr. 1990	1991-03-15	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60947-2	Low-voltage switchgear and controlgear - Part 2: Circuit-breakers  IEC 947-2:1989/A1:1992	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60947-3	Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units  IEC 947-3:1990 + corrigendum Dec. 1991, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60947-3	Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units  IEC 947-3:1990/A1: 1994	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60947-4-1	Low-voltage switchgear and controlgear - Part 4: Contactors and motor-starters - Section 1: Electromechanical contactors	1991-12-10	C 392 of 1996-12-30

		and motor-starters  (Corrigendum December 1991)  IEC 947-4-1:1990		
CENELEC	Amendment A1 to EN 60947-4-1	Low-voltage switchgear and controlgear - Part 4: Contactors and motor-starters - Section 1: Electromechanical contactors and motor-starters  IEC 947-4-1:1990/A1:1994	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 60947-5-1	Low-voltage switchgear and controlgear - Part 5: Control circuit devices and switching elements - Section 1: Electromechanical control circuit devices (Corrigendum November 1991)  IEC 947-5-1:1990	1991-09-23	C 392 of 1996-12-30
CENELEC	EN 60947-6-1	Low-voltage switchgear and controlgear - Part 6: Multiple function equipment - Section 1: Automatic transfer switching equipment (Corrigendum November 1991)  IEC 947-6-1:1989	1991-03-15	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60947-6-1	Low-voltage switchgear and controlgear - Part 6: Multiple function equipment - Section 1: Automatic transfer switching equipment  IEC 947-6-1:1989/A1:1994	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 60947-6-2	Low-voltage switchgear and controlgear - Part 6: Multiple function equipment - Section 2: Control and protective switching devices (or equipment) (CPS)  IEC 947-6-2:1992	1992-12-09	C 392 of 1996-12-30
CENELEC	EN 60947-7-1	Low-voltage switchgear and controlgear - Part 7: Ancillary equipment - Section 1: Terminal blocks for copper conductors  IEC 947-7-1:1989	1991-03-15	C 392 of 1996-12-30
CENELEC	EN 60950	Safety of information technology equipment, including electrical	1992-06-16	C 392 of 1996-12-30

		business equipment IEC 950:1991, mod; Modified		
CENELEC	Amendment A1 to EN 60950	Safety of information technology equipment, including electrical business equipment IEC 950:1991/A1:1992	1992-12-09	C 392 of 1996-12-30
CENELEC	Amendment A2 to EN 60950	Safety of information technology equipment, including electrical business equipment IEC 950:1991/A2:1993	1993-07-06	C 392 of 1996-12-30
CENELEC	EN 60967	Safety of electrically heated blankets, pads and similar flexible heating appliances for household use IEC 967:1988, mod. Modified	1989-09-11	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60967	Safety of electrically heated blankets, pads and similar flexible heating appliances for household use IEC 967:1988/A1:1991, mod. Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	Amendment A51 to EN 60967	Safety of electrically heated blankets, pads and similar flexible heating appliances for household use	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 60968	Self-ballasted lamps for general lighting services - Safety requirements IEC 968:1988, mod. Modified	1990-06-11	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 60968	Self-ballasted lamps for general lighting services - Safety requirements IEC 968:1988/A1:1991	1992-12-09	C 392 of 1996-12-30
CENELEC	EN 60974-1	Safety requirements for arc welding equipment - Part 1: Welding power sources IEC 974-1:1989, mod.	1989-12-05	C 392 of 1996-12-30

		Modified		
CENELEC	EN 60974-11	Arc-welding equipment - Part 11: Electrode holders  IEC 974-11:1992, mod.	1995	C 125 of 1997-04-22
CENELEC	EN 60974-12	Arc welding equipment - Part 12: Coupling devices for welding cables  IEC 974-12:1992, mod.	1995	C 125 of 1997-04-22
CENELEC	EN 60998-1	Connecting devices for low-voltage circuits for household and similar purposes - Part 1: General requirements  IEC 998-1:1990, mod.  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60998-2-1	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-1: Particular requirements for connecting devices as separate entities with screw-type clamping units  IEC 998-2-1:1990, mod.  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 60998-2-2	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-2: Particular requirements for connecting devices as separate entities with screwless-type clamping units  IEC 998-2-2:1991	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60998-2-3	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-3: Particular requirements for connecting devices as separate entities with insulation piercing clamping units  IEC 998-2-3:1991	1993-09-22	C 392 of 1996-12-30
CENELEC	EN 60998-2-4	Connecting devices for low-voltage circuits for household and similar purposes - Part 2-4: Particular requirements	1992-03-24	C 392 of 1996-12-30

		for twist-on connecting devices IEC 998-2-4:1993		
CENELEC	EN 60999	Connecting devices - Safety requirements for screw-type and screwless-type clamping units for electrical copper conductors  IEC 999:1990, mod.  Modified	1993-03-09	C 392 of 1996-12-30
CENELEC	EN 61008-1	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB's) - Part 1: General rules  IEC 1008-1:1990 + A1:1992, mod.  Modified	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61008-2-1	Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB's) - Part 2-1: Applicability of the general rules to RCCB's functionally independent of line voltage  IEC 1008-2-1:1990	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61009-1	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 1: General rules  IEC 1009-1:1991, mod.  Modified	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61009-2-1	Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 2-1: Applicability of the general rules to RCBO's functionally independent of line voltage  IEC 1009-2-1:1991	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61010-1	Safety requirements for electrical	1993-03-09	C 392 of

		equipment for measurement, control and laboratory use - Part 1: General requirements  IEC 1010-1:1990 + A1:1992, mod;  Modified		1996-12-30
CENELEC	Amendment A2 to EN 61010-1	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements  IEC 1010-1:1990/A2:1995	1995-07-04	C 392 of 1996-12-30
CENELEC	EN 61010-2-010	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-010: Particular requirements for laboratory equipment for the heating of materials  IEC 1010-2-010:1992, mod.  Modified	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61010-2-020	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-020: Particular requirements for laboratory centrifuges  IEC 1010-2-020:1992, mod.  Modified	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61010-2-031	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-031: Particular requirements for hand-held probe assemblies for electrical measurement and test  IEC 1010-2-031:1993	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61010-2-032	Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-032: Particular requirements for hand-held current clamps for electrical measurement and test  IEC 1010-2-032:1994	1994-12-06	C 392 of 1996-12-30
CENELEC	EN	Safety requirements for electrical	1995	C 125 of

	61010-2-051	equipment for measurement, control, and laboratory use - Part 2-051: Particular requirements for laboratory equipment for mechanical mixing and stirring  IEC 1010-2-051:1995		1997-04-22
CENELEC	EN 61048	Capacitors for use in tubular fluorescent and other discharge lamp circuits - General and safety requirements  IEC 1048:1991 + corrigendum Jan. 1992, mod.  Modified	1992-09-15	C 392 of 1996-12-30
CENELEC	EN 61050	Transformers for tubular discharge lamps having a no-load output voltage exceeding 1 000 V (generally called neon-transformers) - General and safety requirements  IEC 1050:1991 + corrigendum Mar. 1992, mod.  Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 61050	Transformers for tubular discharge lamps having a no-load output voltage exceeding 1 000 V (generally called neon-transformers) - General and safety requirements  IEC 1050:1991/A1: 1994 Modified	1995-05-15	C 392 of 1996-12-30
CENELEC	EN 61058-1	Switches for appliances - Part 1: General requirements  IEC 1058-1:1990	1991-06-25	C 392 of 1996-12-30
CENELEC	Amendment A1 to EN 61058-1	Switches for appliances - Part 1: General requirements  IEC 1058-1:1990/A1:1993	1992-06-16	C 392 of 1996-12-30
CENELEC	EN 61058-2-1	Switches for appliances - Part 2-1: Particular requirements for cord switches  IEC 1058-2-1:1992	1991-12-10	C 392 of 1996-12-30
CENELEC	EN 61058-2-5	Switches for appliances - Part 2-5: Particular requirements for	1994-07-05	C 392 of 1996-12-30

		change-over selectors IEC 1058-2-5:1994		
CENELEC	EN 61095	Electromechanical contactors for household and similar purposes IEC 1095:1992	1992-12-09	C 392 of 1996-12-30
CENELEC	EN 61131-2	Programmable controllers - Part 2: Equipment requirements and test IEC 1131-2:1992	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61143-1	Electrical measuring instruments - X-t recorders - Part 1: Definitions and requirements IEC 1143-1:1992	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61143-2	Electrical measuring instruments - X-t recorders - Part 2: Recommended additional test methods IEC 1143-2:1992	1994-03-08	C 392 of 1996-12-30
CENELEC	EN 61184	Bayonet lampholders IEC 1184:1993, mod. Modified	1994-05-15	C 392 of 1996-12-30
CENELEC	EN 61187	Electrical and electronic measuring equipment - Documentation IEC 1187:1994, mod. Modified	1994-09-01	C 392 of 1996-12-30
CENELEC	EN 61195	Double-capped fluorescent lamps - Safety specifications IEC 1195:1993	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 61199	Single-capped fluorescent lamps - Safety specifications IEC 1199:1993	1993-12-08	C 392 of 1996-12-30
CENELEC	EN 61204	Low-voltage power supply devices, d.c. output - Performance characteristics and safety requirements IEC 1204:1993, mod.	1994-12-06	C 392 of 1996-12-30

		Modified		
CENELEC	EN 61210	Connecting devices - Flat quick-connect terminations for electrical copper conductors - Safety requirements  IEC 1210:1993, mod.  Modified	1994-12-06	C 392 of 1996-12-30
CENELEC	EN 61230	Live working - Portable equipment for earthing or earthing and short-circuiting  IEC 1230:1993, mod.	1995	C 125 of 1997-04-22
CENELEC	EN 61236	Saddles, pole clamps (stick clamps) and accessories for live working  IEC 1236:1993, mod.	1995	C 125 of 1997-04-22
CENELEC	EN 61293	Marking electrical equipment with ratings related to electrical supply - Safety requirements  IEC 1293:1994	1994-07-05	C 392 of 1996-12-30
CENELEC	EN 61310-1	Safety of machinery - Indication, marking and actuation - Part 1: Requirements for visual, auditory and tactile signals  IEC 1310-1:1995	1994-10-04	C 392 of 1996-12-30
CENELEC	EN 61310-2	Safety of machinery - Indication, marking and actuation - Part 2: Requirements for marking  IEC 1310-2:1995	1994-10-04	C 392 of 1996-12-30
CENELEC	HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 : General requirements  IEC 227-1:1979, mod.  Modified	1989-12-05	C 392 of 1996-12-30
CENELEC	Amendment A5 to HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 : General requirements	1990-06-11	C 392 of 1996-12-30
CENELEC	Amendment A6 to HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 :	1991-03-15	C 392 of 1996-12-30

		General requirements		
CENELEC	Amendment A7 to HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 : General requirements	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A8 to HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 : General requirements	1993-12-08	C 392 of 1996-12-30
CENELEC	Amendment A9 to HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 : General requirements	1992-12-09	C 392 of 1996-12-30
CENELEC	Amendment A12 to HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 : General requirements	1993-07-06	C 392 of 1996-12-30
CENELEC	Amendment A13 to HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 : General requirements	1994-07-05	C 392 of 1996-12-30
CENELEC	Amendment A15 to HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 : General requirements	1994-12-06	C 392 of 1996-12-30
CENELEC	Amendment A16 to HD 21.1 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1 : General requirements	1995-05-15	C 392 of 1996-12-30
CENELEC	HD 21.2 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods  IEC 227-2:1979, mod.  Modified	1989-12-05	C 392 of 1996-12-30
CENELEC	Amendment A2 to HD 21.2 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1990-06-11	C 392 of 1996-12-30
CENELEC	Amendment A3 to HD 21.2 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1992-12-09	C 392 of 1996-12-30
CENELEC	Amendment A4 to HD 21.2 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1993-07-06	C 392 of 1996-12-30

CENELEC	Amendment A6 to HD 21.2 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1994-12-06	C 392 of 1996-12-30
CENELEC	Amendment A11 to HD 21.2 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1995-03-06	C 392 of 1996-12-30
CENELEC	Amendment A13 to HD 21.2 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1995-05-15	C 392 of 1996-12-30
CENELEC	HD 21.3 S3	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 3: Non-sheathed cables for fixed wiring  IEC 227-3:1993, mod.  Modified	1994-12-06	C 392 of 1996-12-30
CENELEC	HD 21.4 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 4: Sheathed cables for fixed wiring  IEC 227-4:1979, mod.  Modified	1981-11-24	C 392 of 1996-12-30
CENELEC	HD 21.5 S3	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 5: Flexible cables (cords)  IEC 227-5:1979, mod.  Modified	1993-12-08	C 392 of 1996-12-30
CENELEC	HD 21.7 S1	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 7: Single core non-sheathed cables for internal wiring for a conductor temperature of 90° C	1989-12-05	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 21.7 S1	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 7: Single core non-sheathed cables for internal wiring for a conductor temperature of 90° C	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A2 to HD 21.7	Polyvinyl chloride insulated cables of rated voltages up to and	1993-07-06	C 392 of 1996-12-30

	S1	including 450/750 V - Part 7: Single core non-sheathed cables for internal wiring for a conductor temperature of 90° C		
CENELEC	HD 21.8 S1	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 8: Single core non-sheathed cable for decorative chains	1990-09-11	C 392 of 1996-12-30
CENELEC	Amendment A2 to HD 21.8 S1	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 8: Single core non-sheathed cable for decorative chains	1994-05-15	C 392 of 1996-12-30
CENELEC	HD 21.9 S2	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 9: Single core non-sheathed cable for installation at low temperatures	1994-12-06	C 392 of 1996-12-30
CENELEC	HD 21.10 S1	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 10: Extensible leads	1992-12-09	C 392 of 1996-12-30
CENELEC	HD 21.11 S1	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 11: Cables for luminaires	1995-03-06	C 392 of 1996-12-30
CENELEC	HD 21.12 S1	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 12: Heat-resistant flexible cables (cords)	1994-07-05	C 392 of 1996-12-30
CENELEC	HD 21.13 S1	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 13: Oil resistant PVC sheathed cables with two or more conductors	1995	C 125 of 1997-04-22
CENELEC	HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	1991-09-23	C 392 of 1996-12-30
CENELEC	Amendment A11 to HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	1991-12-10	C 392 of 1996-12-30
CENELEC	Amendment A12 to HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General	1992-03-24	C 392 of 1996-12-30

		requirements		
CENELEC	Amendment A13 to HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	1992-09-15	C 392 of 1996-12-30
CENELEC	Amendment A14 to HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	1993-12-08	C 392 of 1996-12-30
CENELEC	Amendment A15 to HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	1993-07-06	C 392 of 1996-12-30
CENELEC	Amendment A16 to HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	1994-05-15	C 392 of 1996-12-30
CENELEC	Amendment A17 to HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	1995-02-15	C 392 of 1996-12-30
CENELEC	Amendment A18 to HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	1994-12-06	C 392 of 1996-12-30
CENELEC	Amendment A19 to HD 22.1 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	1995-05-15	C 392 of 1996-12-30
CENELEC	HD 22.2 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods  IEC 245-2:1980, mod.  Modified	1991-09-23	C 392 of 1996-12-30
CENELEC	Amendment A5 to HD 22.2 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A6 to HD 22.2 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1992-03-24	C 392 of 1996-12-30
CENELEC	Amendment A7 to HD 22.2 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1992-09-15	C 392 of 1996-12-30
CENELEC	Amendment A8 to HD 22.2 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1993-07-06	C 392 of 1996-12-30

CENELEC	Amendment A9 to HD 22.2 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1993-09-22	C 392 of 1996-12-30
CENELEC	Amendment A10 to HD 22.2 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1995-05-15	C 392 of 1996-12-30
CENELEC	Amendment A11 to HD 22.2 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 2: Test methods	1995-05-15	C 392 of 1996-12-30
CENELEC	HD 22.3 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 3: Heat resistant silicone rubber insulated cables  IEC 245-3:1980, mod.  Modified	1990-06-11	C 392 of 1996-12-30
CENELEC	HD 22.3 S3	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 3: Heat resistant silicone rubber insulated cables  IEC 245-3:1980, mod.	1995	C 125 of 1997-04-22
CENELEC	HD 22.4 S3	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 4: Cords and flexible cables  IEC 245-4:1994, mod.  Modified	1994-12-06	C 392 of 1996-12-30
CENELEC	HD 22.6 S1	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 6: Arc welding cables	1989-12-05	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 22.6 S1	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 6: Arc welding cables	1992-03-24	C 392 of 1996-12-30
CENELEC	HD 22.6 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 6: Arc welding cables	1995-05-15	C 392 of 1996-12-30
CENELEC	HD 22.7 S1	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 7: Cables with increased heat resistance for internal wiring for a conductor	1992-03-24	C 392 of 1996-12-30

		temperature of 110° C		
CENELEC	HD 22.7 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 7: Cables with increased heat resistance for internal wiring for a conductor temperature of 110° C	1995	C 125 of 1997-04-22
CENELEC	HD 22.8 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 8: Polychloroprene or equivalent synthetic elastomer sheathed cable for decorative chains	1994-05-15	C 392 of 1996-12-30
CENELEC	HD 22.9 S1	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 9: Single-core non-sheathed cables for fixed wiring having low emission of smoke and corrosive gases	1992-09-15	C 392 of 1996-12-30
CENELEC	HD 22.9 S2	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 9: Single core non-sheathed cables for fixed wiring having low emission of smoke and corrosive gases	1995-05-15	C 392 of 1996-12-30
CENELEC	HD 22.10 S1	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 10: EPR insulated and polyurethane sheathed flexible cables	1994-05-15	C 392 of 1996-12-30
CENELEC	HD 22.11 S1	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 9: EVA cords and flexible cables	1995-02-15	C 392 of 1996-12-30
CENELEC	HD 22.14 S1	Rubber insulated cables of rated voltages up to and including 450/750 V - Part 14: Cords for applications requiring high flexibility	1995	C 125 of 1997-04-22
CENELEC	HD 27 S1	Colours of the cores of flexible cables and cords  IEC 173:1964	1974-05-07	C 392 of 1996-12-30
CENELEC	HD 194 S1	Requirements concerning the electrical safety of laser-apparatus and installations	1974-05-07	C 392 of 1996-12-30
CENELEC	HD 196 S1	Plugs, socket-outlets and couplers for industrial purposes  IEC 309:1969 + IEC 309A:1973	1975-05-13	C 392 of 1996-12-30

CENELEC	HD 207 S1	Recommendation for capacitors for inductive heat generating plants operating at frequencies between 40 and 24 000 Hz  IEC 110:1973	1974-06-27	C 392 of 1996-12-30
CENELEC	HD 250 S1	General specification for electric motor operated appliances for household and similar purposes  CEE 10 Part I:1964 + A1:1970 + A2:1971, mod.  Modified	1974-11-26	C 392 of 1996-12-30
CENELEC	HD 250.2 S1	General specification for electric motor operated appliances for household and similar purposes  Modification No. 1 to HD 250 S1	1977-10-17	C 392 of 1996-12-30
CENELEC	HD 251 S3	Safety of household and similar electrical appliances - Part 1: General requirements  IEC 335-1:1976 + A1:1977 + A2:1979, mod.  Modified	1980-10-02	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 251 S3	Safety of household and similar electrical appliances - Part 1: General requirements	1984-12-13	C 392 of 1996-12-30
CENELEC	Amendment A2 to HD 251 S3	Safety of household and similar electrical appliances - Part 1: General requirements	1987-03-04	C 392 of 1996-12-30
CENELEC	Amendment A3 to HD 251 S3	Safety of household and similar electrical appliances - Part 1: General requirements	1987-03-04	C 392 of 1996-12-30
CENELEC	HD 262 S1	Particular specification for portable immersion heaters  CEE 11 Part II Section C:1968, mod.  Modified	1975-05-13	C 392 of 1996-12-30
CENELEC	HD 262.2 S1	Particular specification for portable immersion heaters  Modification No. 1 to HD 262 S1	1977-10-17	C 392 of 1996-12-30
CENELEC	HD 262.3 S1	Particular specification for	1988-12-06	C 392 of

		portable immersion heaters Modification No. 2 to HD 262 S1		1996-12-30
CENELEC	HD 262.4 S1	Particular specification for portable immersion heaters Modification No. 3 to HD 262 S1	1990-09-11	C 392 of 1996-12-30
CENELEC	HD 277 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for motor-compressors IEC 335-2-34:1980, mod. Modified	1984-09-11	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 277 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for motor-compressors IEC 335-2-34:1980/A1:1987	1989-11-01	C 392 of 1996-12-30
CENELEC	HD 278 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for room heaters IEC 335-2-30:1979, mod. Modified	1987-06-15	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 278 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for room heaters	1987-12-02	C 392 of 1996-12-30
CENELEC	Amendment A2 to HD 278 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for room heaters	1989-09-11	C 392 of 1996-12-30
CENELEC	Amendment A3 to HD 278 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for room heaters	1990-01-01	C 392 of 1996-12-30
CENELEC	Amendment A4 to HD 278 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for room heaters	1990-06-11	C 392 of 1996-12-30
CENELEC	Amendment A5 to HD 278 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for room	1990-09-11	C 392 of 1996-12-30

		heaters		
CENELEC	Amendment A6 to HD 278 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for room heaters	1991-05-01	C 392 of 1996-12-30
CENELEC	HD 280 S1	Safety requirements for electric fans and regulators - Part 1: Fans and regulators for household and similar purposes  IEC 342-1:1981 + A1:1982, mod.  Modified	1985-12-03	C 392 of 1996-12-30
CENELEC	HD 280.2 S1	Safety requirements for electric fans and regulators - Part 2: Fans and regulators for use in ships  IEC 342-2:1982	1990-06-11	C 392 of 1996-12-30
CENELEC	HD 280.3 S1	Safety requirements for electric fans and regulators - Part 3: Jet fans  IEC 342-3:1982	1990-06-11	C 392 of 1996-12-30
CENELEC	HD 282 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for instantaneous water heaters  IEC 335-2-35:1982, mod.  Modified	1989-12-05	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 282 S1	Safety of household and similar electrical appliances - Part 2: Particular requirements for instantaneous water heaters	1992-09-15	C 392 of 1996-12-30
CENELEC	HD 283 S1	Safety of household and similar electrical appliances - Particular requirements for the maximum temperature allowed for the surfaces of air-outlet grilles of thermal storage room heating appliances	1992-03-24	C 392 of 1996-12-30
CENELEC	HD 289 S1	Safety of household and similar electrical appliances - Particular rules for routine tests referring to appliances under the scope of EN 60335-1	1989-12-05	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 289	Safety of household and similar electrical appliances - Particular	1991-09-23	C 392 of 1996-12-30

	S1	rules for routine tests referring to appliances under the scope of EN 60335-1		
CENELEC	HD 308 S1	Identification and use of cores of flexible cables	1975-07-09	C 392 of 1996-12-30
CENELEC	HD 324 S1	Identification of insulated and bare conductors by colours  IEC 446:1977	1976-03-09	C 392 of 1996-12-30
CENELEC	HD 327 S2	Safety requirements for electronic flash apparatus for photographic purposes  IEC 491:1984, mod.  Modified	1988-03-01	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 327 S2	Safety requirements for electronic flash apparatus for photographic purposes	1990-12-10	C 392 of 1996-12-30
CENELEC	HD 359 S2	Flat polyvinylchloride sheathed lift cables	1989-09-11	C 392 of 1996-12-30
CENELEC	HD 360 S2	Circular rubber insulated lift cables for normal use	1989-09-11	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 360 S2	Circular rubber insulated lift cables for normal use	1991-09-23	C 392 of 1996-12-30
CENELEC	HD 362 S1	Safety rules for the construction of equipment for electric arc welding and allied processes	1976-11-18	C 392 of 1996-12-30
CENELEC	HD 368 S1	Direct acting recording electrical measuring instruments and their accessories  IEC 258:1968 + A1:1976	1977-12-13	C 392 of 1996-12-30
CENELEC	HD 400.1 S1	Hand-held motor operated tools - Part I: General specifications  CEE 20 Part I:1973	1978-11-23	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 400.1 S1	Hand-held motor operated tools - Part I: General specifications	1990-12-10	C 392 of 1996-12-30
CENELEC	HD 400.2A S1	Hand-held motor operated tools - Part II: Particular specifications - Section A: Drills  CEE 20 Part II Section A:1975, mod.  Modified	1978-11-23	C 392 of 1996-12-30

CENELEC	Amendment A1 to HD 400.2A S1	Hand-held motor operated tools - Part II: Particular specifications - Section A: Drills	1993-12-08	C 392 of 1996-12-30
CENELEC	HD 400.2B S1	Hand-held motor operated tools - Part II: Particular specifications - Section B: Screwdrivers and impacts wrenches  CEE 20 Part II Section B:1975, mod.  Modified	1978-11-23	C 392 of 1996-12-30
CENELEC	HD 400.2C S1	Hand-held motor operated tools - Part II: Particular specifications - Section C: Grinders, polishers and disc-type sanders  CEE 20 Part II Section C:1975, mod.  Modified	1978-11-23	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 400.2C S1	Hand-held motor operated tools - Part II: Particular specifications - Section C: Grinders, polishers and disc-type sanders	1990-12-10	C 392 of 1996-12-30
CENELEC	HD 400.2D S1	Hand-held motor operated tools - Part II: Particular specifications - Section D: Sanders  CEE 20 Part II Section D:1975, mod.  Modified	1978-11-23	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 400.2D S1	Hand-held motor operated tools - Part II: Particular specifications - Section D: Sanders	1990-12-10	C 392 of 1996-12-30
CENELEC	HD 400.2E S2	Hand-held motor operated tools - Part II: Particular specifications - Section E: Circular saws and circular knives  CEE 20 Part II Section E:1975, mod.  Modified	1988-12-05	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 400.2E S2	Hand-held motor operated tools - Part II: Particular specifications - Section E: Circular saws and circular knives	1990-12-10	C 392 of 1996-12-30
CENELEC	HD 400.2F S1	Hand-held motor operated tools - Part II: Particular specifications -	1978-11-23	C 392 of 1996-12-30

		Section F: Hammers  CEE 20 Part II Section F:1975, mod.  Modified		
CENELEC	Amendment A1 to HD 400.2F S1	Hand-held motor operated tools - Part II: Particular specifications - Section F: Hammers	1993-12-08	C 392 of 1996-12-30
CENELEC	HD 400.2G S1	Hand-held motor operated tools - Part II: Particular specifications - Section G: Spray guns  CEE 20 Part II Section G:1975, mod.  Modified	1978-11-23	C 392 of 1996-12-30
CENELEC	HD 400.3H S1	Hand-held motor operated tools - Part II: Particular specifications - Section H: Sheet metal shears and nibblers  CEE 20 Part II Section H:1977, mod.  Modified	1981-07-07	C 392 of 1996-12-30
CENELEC	HD 400.3I S1	Hand-held motor operated tools - Part II: Particular specifications - Section I: Tappers  CEE 20 Part II Section I:1977, mod.  Modified	1981-07-07	C 392 of 1996-12-30
CENELEC	HD 400.3J S1	Hand-held motor operated tools - Part II: Particular specifications - Section J: Jig saws  CEE 20 Part II Section J:1977, mod.  Modified	1981-07-07	C 392 of 1996-12-30
CENELEC	HD 400.3K S1	Hand-held motor operated tools - Part II: Particular specifications - Section K: Concrete vibrators  CEE 20 Part II Section K:1977, mod.  Modified	1981-07-07	C 392 of 1996-12-30
CENELEC	HD 400.3L S2	Hand-held motor operated tools -	1988-03-02	C 392 of

		Part II: Particular specifications - Section L: Chain saws  CEE 20 Part II Section L:1977, mod.  Modified		1996-12-30
CENELEC	HD 400.3M S2	Hand-held motor operated tools - Part II: Particular specifications - Section M: Planers  CEE 20 Part II Section M:1977, mod.  Modified	1990-12-10	C 392 of 1996-12-30
CENELEC	HD 400.3N S2	Hand-held motor operated tools - Part II: Particular specifications - Section N: Hedge trimmers and scissor-type grass shears  CEE 20 Part II Section N:1977, mod.  Modified	1988-06-28	C 392 of 1996-12-30
CENELEC	HD 400.3O S1	Hand-held motor operated tools - Part II: Particular specifications - Section O: Routers  CEE 20 Part II Section O:1977, mod.  Modified	1990-12-10	C 392 of 1996-12-30
CENELEC	HD 400.3R S1	Hand-held motor operated tools - Part 3: Particular specifications - Section R: Trimmers	1991-12-10	C 392 of 1996-12-30
CENELEC	HD 405.1 S1	Tests on electric cables under fire conditions - Part 1: Test on a single vertical insulated wire or cable  IEC 332-1:1979	1980-06-18	C 392 of 1996-12-30
CENELEC	Amendment A1 to HD 405.1 S1	Tests on electric cables under fire conditions - Part 1: Test on a single vertical insulated wire or cable	1991-12-10	C 392 of 1996-12-30
CENELEC	HD 405.2 S1	Tests on electric cables under fire conditions - Part 2: Test on a single small vertical insulated copper wire or cable  IEC 332-2:1989	1991-03-15	C 392 of 1996-12-30

CENELEC	HD 405.3 S1	Tests on electric cables under fire conditions - Part 3: Tests on bunched wires or cables  IEC 332-3:1992	1993-07-06	C 392 of 1996-12-30
CENELEC	HD 407 S1	Safety rules for the use of equipment for electric arc welding and allied processes	1979-11-28	C 392 of 1996-12-30
CENELEC	HD 419.2 S1	Low-voltage controlgear - Part 2: Semiconductor contactors (solid state contactors)  IEC 158-2:1982, mod.  Modified	1986-02-27	C 392 of 1996-12-30
CENELEC	HD 427 S1	Specific safety rules for the installation of equipment for electric arc welding and allied processes	1980-10-16	C 392 of 1996-12-30
CENELEC	HD 433 S1	Safety requirements for arc welding equipment - Coupling devices for welding cables	1982-12-01	C 392 of 1996-12-30
CENELEC	HD 434 S1	Ripple control receivers	1982-12-01	C 392 of 1996-12-30
CENELEC	HD 444.2.1 S1	Fire hazard testing - Part 2: Test methods - Glow-wire test and guidance  IEC 695-2-1:1980	1982-12-02	C 392 of 1996-12-30
CENELEC	HD 444.2.2 S2	Fire Hazard testing - Part 2: Test methods - Needle-flame test  IEC 695-2-2:1991	1992-12-09	C 392 of 1996-12-30
CENELEC	HD 444.2.3 S1	Fire hazard testing - Part 2: Test methods - Bad-connection test with heaters  IEC 695-2-3:1984	1986-02-27	C 392 of 1996-12-30
CENELEC	HD 491.3 S1	Safety in electroheat installations - Part 3: Particular requirements for induction and conduction heating and induction melting installations  IEC 519-3:1988, mod.  Modified	1990-03-05	C 392 of 1996-12-30
CENELEC	HD 491.9 S1	Safety in electroheat installations - Part 9: Particular requirements for high-frequency dielectric	1991-03-15	C 392 of 1996-12-30

		heating installations IEC 519-9:1987		
CENELEC	HD 505.1.1 S3	Common test methods for insulating and sheathing materials of electric cables - Part 1: Methods for general application - Section 1: Measurement of thickness and overall dimensions - Tests for determining the mechanical properties  IEC 811-1-1:1985 + A1:1988 + A2:1989	1990-12-10	C 392 of 1996-12-30
CENELEC	HD 505.1.2 S2	Common test methods for insulating and sheathing materials of electric cables - Part 1: Methods for general application - Section 2: Thermal ageing methods  IEC 811-1-2:1985 + A1:1989	1990-12-10	C 392 of 1996-12-30
CENELEC	HD 505.1.3 S2	Common test methods for insulating and sheathing materials of electric cables - Part 1: Methods for general application - Section 3: Methods for determining the density - Water absorption tests - Shrinkage test  IEC 811-1-3:1985 + A1:1990	1991-03-15	C 392 of 1996-12-30
CENELEC	HD 505.1.4 S1	Common test methods for insulating and sheathing materials of electric cables - Part 1: Methods for general application - Section 4: Tests at low temperature  IEC 811-1-4:1985	1988-03-01	C 392 of 1996-12-30
CENELEC	HD 505.2.1 S1	Common test methods for insulating and sheathing materials of electric cables - Part 2: Methods specific to elastomeric compounds - Section 1: Ozone resistance test - Hot set test - Mineral oil immersion test  IEC 811-2-1:1986	1988-03-01	C 392 of 1996-12-30
CENELEC	HD 505.3.1 S1	Common test methods for insulating and sheathing	1988-03-01	C 392 of 1996-12-30

		materials of electric cables - Part 3: Methods specific to PVC compounds - Section 1: Pressure test at high temperature - Tests for resistance to cracking  IEC 811-3-1:1985		
CENELEC	HD 505.3.2 S1	Common test methods for insulating and sheathing materials of electric cables - Part 3: Methods specific to PVC compounds - Section 2: Loss of mass test - Thermal stability test  IEC 811-3-2:1985	1988-03-01	C 392 of 1996-12-30
CENELEC	HD 505.4.1 S2	Common test methods for insulating and sheathing materials of electric cables - Part 4: Methods specific to polyethylene and polypropylene compounds - Section 1: Resistance to environmental stress cracking - Wrapping test after thermal ageing in air - Measurement of the melt flow index - Carbon black and/or mineral content measurement in PE  IEC 811-4-1:1985 + A1:1988	1990-01-01	C 392 of 1996-12-30
CENELEC	HD 505.4.2 S1	Common test methods for insulating and sheathing materials of electric cables - Part 4: Methods specific to polyethylene and polypropylene compounds - Section 2: Elongation at break after pre-conditioning - Wrapping test after thermal ageing in air - Measurement of mass increase - Long-term stability test (Appendix A) - Test method for copper-catalysed oxidative degradation (Appendix B)  IEC 811-4-2:1990	1991-12-10	C 392 of 1996-12-30
CENELEC	HD 505.5.1 S1	Common test methods for insulating and sheathing materials of electric cables - Part 5: Methods specific to filling compounds - Section 1: Drop-point - Separation of oil -	1991-12-10	C 392 of 1996-12-30

		Lower temperature brittleness - Total acid number - Absence of corrosive components - Permittivity at 23°C - D.C. Resistivity at 23°C and 100°C  IEC 811-5-1:1990		
CENELEC	HD 528 S1	A method of temperature-rise assessment by extrapolation for partially type-tested assemblies (PTTA) of low-voltage switchgear and controlgear  IEC 890:1987	1989-06-12	C 392 of 1996-12-30
CENELEC	HD 536 S1	Test requirements for the evaluation of the emission of ionized gases during short-circuit tests of residual current operated circuit-breakers for household and similar use	1990-02-01	C 392 of 1996-12-30
CENELEC	HD 537 S1	Test requirements for the evaluation of the emission of ionized gases during short-circuit tests of residual current operated circuit-breakers with integral overcurrent protection for household and similar use	1990-02-01	C 392 of 1996-12-30
CENELEC	HD 549 S1	Conference systems - Electrical and audio requirements  IEC 914:1988	1989-11-01	C 392 of 1996-12-30
CENELEC	HD 586.1 S1	Mineral insulated cables with a rated voltage not exceeding 750 V - Part 1: Cables	1993-09-22	C 392 of 1996-12-30
CENELEC	HD 586.2 S1	Mineral insulated cables with a rated voltage not exceeding 750 V - Part 2: Terminations	1994-03-08	C 392 of 1996-12-30
CENELEC	HD 597 S1	Coupling capacitors and capacitors dividers  IEC 358:1990	1991-12-10	C 392 of 1996-12-30
CENELEC	HD 602 S1	Test on gases evolved during combustion of materials from cables - Determination of degree of acidity (corrosivity) of gases by measuring pH and conductivity  IEC 754-2:1991 Modified	1992-03-24	C 392 of 1996-12-30
CENELEC	HD 605 S1	Electric cables - Additional test	1993-12-08	C 392 of

		methods		1996-12-30
CENELEC	HD 606.1 S1	Measurement of smoke density of electric cables burning under defined conditions - Part 1: Test apparatus  IEC 1034-1:1990, mod.	1992-03-24	C 392 of 1996-12-30
CENELEC	HD 606.2 S1	Measurement of smoke density of electric cables burning under defined conditions - Part 2: Test procedure and requirements  IEC 103 4-2:1991, mod.	1992-03-24	C 392 of 1996-12-30

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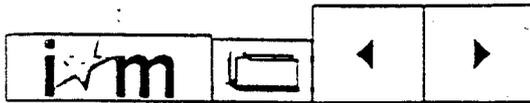
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## **Appendix F**

### **EU Directives 90/396 EEC: Appliances Burning Gaseous Fuels**



## EU Directive 90/396/EEC

### COUNCIL DIRECTIVE OF 29 JUNE 1990 ON THE APPROXIMATION OF THE LAWS OF THE MEMBER STATES RELATING TO APPLIANCES BURNING GASEOUS FUELS (90/396/EEC)

(26.7.90 OJ No. 196/15)

Short name: [-]  
Base: Directive 90/396/EEC  
Modification: Directive 93/68/EEC [CE Marking]  
 Directives repealed : 84/530/EEC and 84/531/EEC.  
Application Guide:  
EC contact point: DG III - D/2 (Ms.Fabregas, Tel. +32.2.2995177, Fax. +32.2.2967013)

#### Appliances burning gaseous fuels Directive 90/396/EEC

European Standardization Bodies	Standard reference	Titles	Ratification date	Publication OJ
CEN	EN 88	Pressure governors for gas appliances for inlet pressures up to 200 mbar	1991	C 216 of 1997-07-17
	EN 88 : 1991/A1	Pressure governors for gas appliances for inlet pressures up to 200 mbar	1996	C 216 of 1997-07-17
CEN	EN 125	Flame supervision devices for gas burning appliances - Thermoelectric types	1991	C 216 of 1997-07-17
	EN 125 : 1991/A1	Flame supervision devices for gas burning appliances - Thermoelectric types	1996	C 216 of 1997-07-17
CEN	EN 126	Multifunctional controls for gas burning appliances	1995	C 187/9 of 21.7.95
CEN	EN 161	Automatic shut-off valves for gas burners and gas burning appliances	1991	C 216 of 1997-07-17
	EN 161:1991/A1	Automatic shut-off valves for gas burners and gas burning appliances	1996	C 216 of 1997-07-17
CEN	EN 203-1	Gas-heated catering equipment - Part 1: Safety requirements	1992	C 93 of 1996-03-29
CEN	EN 203-1: 1992/A1	Gas-heated catering equipment - Part 1: Safety requirements	1995	C 93 of 1996-03-29
CEN	EN 203-2	Gas heated catering equipment - Part 2:	1995	C 187/9 of

		Rational use of energy		21.7.95
CEN	EN 257 EN 257 : 1992/A1	Mechanical thermostats for gas-burning appliances Mechanical thermostats for gas-burning appliances	1992 1996	C 216 of 1997-07-17 C 216 of 1997-07-17
CEN	EN 291	Rubber seals - Static seals in domestic appliances for combustible gas up to 200 mbar - Specifications for material	1992	C 334/7 of 30.11.94
CEN	EN 297	Gas-fired central heating boilers - Type B 11 and B 11 BS boilers fitted with atmospheric burners of nominal heat input not exceeding 70 kW	1994	C 187/9 of 21.7.95
CEN	EN 298	Automatic gas burner control systems for gas burners and gas burning appliances with or without fans	1993	C 334/7 of 30.11.94
CEN	EN 377	Lubricants for applications in appliances and associated controls using combustible gases except those designed for use in industrial processes	1993	C 334/7 of 30.11.94
CEN	EN 437 EN 437 : 1993/A1	Test gases - Test pressures - Appliance categories Test gases - Test pressures - Appliance categories	1993 1997	C 216 of 1997-07-17 C 216 of 1997-07-17
CEN	EN 449	Specification of dedicated liquefied petroleum gas appliances, domestic flueless space heaters (including diffusive catalytic combustion heaters)	1996	C 288 of 1996-10-01
CEN	EN 549	Rubber materials for seals and diaphragms for gas appliances and gas equipment	1994	C 187/9 of 21.7.95
CEN	EN 625	Gas-fired central heating boilers - Specific requirements for the domestic hot water operation combination boilers of a nominal heat input not exceeding 70 kW	1995	C 93 of 1996-03-29
CEN	EN 676	Automatic forced draught burners for gaseous fuels	1996	C 216 of 1997-07-17
CEN	EN 751-1	Sealing materials for metallic threaded joints in contact with 1st, 2d and 3rd family gases and hot water - Part 1: Anaerobic jointing compounds	1996	C 216 of 1997-07-17
CEN	EN 751-2	Sealing materials for metallic threaded joints in contact with 1st, 2d and 3rd family gases and hot water - Part 2: Non-hardening jointing compounds	1996	C 216 of 1997-07-17
CEN	EN 751-3	Sealing materials for metallic threaded	1996	C 216 of

		joints in contact with 1st, 2d and 3rd family gases and hot water - Part 3: Unsintered PTFE tapes		1997-07-17
CEN	EN 970	Non-destructive examination of fusion welds - Visual examination	1997	C 216 of 1997-07-17

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## **Appendix G**

### **IFTA Code of Practice for Government-Mandated Pre-Shipment Inspection Activities**

# IFTA CODE OF PRACTICE

INTERNATIONAL FEDERATION OF INSPECTION AGENCIES



August, 1997

## CODE OF PRACTICE FOR GOVERNMENT MANDATED PRESHIPMENT INSPECTION ACTIVITIES

### ARTICLE 1

#### COVERAGE & DEFINITIONS

- 1.1. This Code of Practice stipulates the obligations of IFIA Members in carrying-out all preshipment inspection activities contracted or mandated by a User Government.

*(Note: The WTO Agreement on Preshipment Inspection (PSI) is only binding between WTO Members whereas this IFIA Code of Practice covers all PSI activities of its members).*

IFIA Members should confirm their commitment to execute Pre-shipment Inspection (PSI) in accordance with the provisions of the WTO Agreement on PSI by either (a) the inclusion of a clause in the contract between the User Government and the IFIA Member or (b) a separate statement to the User Government.

- 1.2. The term "User Government" is a government or government body which contracts for or mandates the use of preshipment inspection activities.
- 1.3. "Preshipment inspection (PSI) activities" are all activities relating to the verification of the quality, the quantity, the price, including currency exchange rate and financial terms and/or the Customs valuation and classification of goods to be exported to the territory of the User Government.
- 1.4. The term "IFIA Member" is a member of the IFIA Preshipment Inspection Committee.

### ARTICLE 2

#### EXECUTION OF USER GOVERNMENTS' MANDATES

##### NON-DISCRIMINATION

- 2.1. Preshipment inspection activities should be carried out in a non-discriminatory manner. The procedures and criteria employed in the conduct of these activities should be objective and applied on an equal basis to all exporters affected by such activities.

Differences in procedures and criteria may occur depending upon:

- (A) The type, location and circumstances of the shipment but the rules of application should be uniform and non-discriminatory.
- (B) The requirements and scope of the PSI programme of the User Government.



## INTERNATIONAL FEDERATION OF INSPECTION AGENCIES

Code of Practice

Page 2

### GOVERNMENTAL REQUIREMENTS

- 2.2. In carrying-out preshipment inspection activities, IFIA Members should follow the applicable laws, regulations or requirements of the User Government.

*Note: In situations, where the WTO Agreement on PSI is applicable and an IFIA Member receives a complaint that, contrary to Article 2.2 of the WTO Agreement on PSI, the User Government's laws, regulations or requirements do not conform to Article III.4 of the GATT 1994, (which requires that imported goods be accorded treatment no less favourable than that accorded to products of national origin) the complainant should be advised that he may pursue the matter with his Government in accordance with the dispute procedure referred to in Article of the WTO Agreement on PSI.*

### SITE OF INSPECTION

- 2.3. All preshipment inspection activities, including the issuance of a Report of Findings (ROF) or an advice of non-issuance of ROF, should be performed in the Customs territory from which the goods are exported or, if the inspection cannot be carried out in that Customs territory given the complex nature of the products involved, or if both parties agree, in the Customs territory in which the goods are manufactured.

#### Notes

- a) *Inspection in the Customs territory in which the goods are manufactured: is typically necessary when, for example:*
- (i) *Tests which must be performed or witnessed by the IFIA Member can only be done on the manufacturer's premises. For some "turnkey" projects individual items of equipment may be manufactured in a number of Customs territories and assembled in the Customs territory of exportation but tests such as pressure vessel testing, non destructive testing of welds, etc. must frequently be done at the manufacturer's premises prior to assembly.*
  - (ii) *Access to the goods is not possible in the Customs territory of exportation such as when the goods are in bond.*
  - (iii) *It is not practicable to unpack the goods in the Customs territory of exportation.*
- b) *For inspection of stuffing and sealing of FCL containers, or to facilitate trade, by mutual agreement between the exporter and IFIA Member, it may sometimes be necessary for*
- (i) *the PSI activity to be carried out in one Customs territory and part in another Customs territory or*
  - (ii) *part of the goods to be inspected in one Customs territory and part in another or several other Customs territories or*
  - (iii) *goods to be presented for inspection in transit in a third country which is not in the Customs territory of exportation.*



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- c) For Customs clearance purposes, Reports of Findings (ROFs) may be "printed" in the country of importation based upon the ROF data issued in the Customs territory of exportation.
- d) To facilitate trade, a ROF or a Security Label, for payment purposes, may be issued in the Customs territory of the exporter, or another Customs territory, by mutual agreement between the exporter and the IFIA Member.

2.4. Except as may be provided for by the regulations of the User Government, quantity and quality inspections should be performed in accordance with the standards defined by the seller and the buyer in the purchase agreement and that, in the absence of such standards, relevant *International Standards* \* apply.

\* An international standard is a standard adopted by a governmental or non-government body whose membership is open to all countries, one of whose recognized activities is in the field of standardization.

### TRANSPARENCY

- 2.5. Preshipment inspection activities should be conducted in a transparent manner.
- 2.6. (A) When initially contacted by exporters, IFIA Members should provide to the exporters a list of all the information which is necessary for the exporters to comply with inspection requirements. The list should at least refer to:
  - (i) IFIA Member's Guidelines for Exporters (outlining the procedures and criteria used for: physical inspection; price verification for export market price and Customs valuation purposes, currency exchange rate verification, customs classification; internal appeals as per article 2.21, etc.)
  - (ii) IFIA Member's Country Data-sheets for Exporters (providing country specific information and a reference to the laws and regulations of the User Government relating to preshipment inspection activities).
  - (iii) Independent Entity Guidelines on Independent Review Procedures (in accordance with Article 4 of the WTO Agreement on PSI).
- (B) The IFIA Member should (i) provide these documents when so requested by exporters (ii) automatically send an information pack, containing relevant documentation, to any new exporter requiring PSI for the first time.
- (C) The IFIA Member should not introduce additional procedural requirements or changes to the existing procedures unless either (i) the exporter concerned is informed of these changes at the time the inspection date is arranged or (ii) the IFIA Member is acting upon regulations or instructions received from the User Government.

(Note: In accordance with Article 2.6 of the WTO Agreement on PSI, changes introduced by User Governments after the time the inspection date is arranged should be in emergency



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*situations of the types addressed by Articles XX and XXI of the GATT 1994. Examples of emergency situations are measures necessary to: protect public morals; protect human, animal or plant life & health; secure compliance with laws & regulations including customs laws; protection of national security).*

- (D) This assistance shall not relieve exporters from their obligations in respect of compliance with the import regulations of the User Governments.
- 2.7. The information referred to in Article 2.6 should be made available to exporters in a convenient manner and the preshipment inspection offices maintained by IFIA Members should serve as information points where this information is available.
- 2.8. When IFIA Members, receive from User Governments, copies of new or amended laws or regulations relating to preshipment inspection activities, IFIA Members shall, where appropriate, notify exporters and/or update their country Data-sheets for Exporters and ensure that the information is available at the information points as per Article 2.7.

### PROTECTION OF CONFIDENTIAL BUSINESS INFORMATION

- 2.9. IFIA Members should treat all information received in the course of the preshipment inspection as business confidential to the extent that such information is not already published, generally available to third parties, or otherwise in the public domain.
- 2.10. In pursuance of Article 2.9, IFIA Members shall establish adequate security measures relating to their offices and employees. In particular :

(A) **Staff Non-Disclosure Agreement :**

All staff employed by the IFIA Member shall be required, as a condition of employment, to sign a Non-Disclosure Agreement prohibiting the disclosure of any confidential business information, obtained during the course of employment, to other parties. Potential employees shall be notified of this requirement in the job offer and shall be required to sign the Agreement by the first day of employment. All employees shall, at least annually, be reminded of the importance of this Agreement.

(B) **Office Security :**

IFIA Members shall implement adequate security measures in their offices containing confidential business information to ensure that (i) access is restricted to authorised personnel only (ii) documents/data are stored in designated secure areas and disposed of by shredding, disintegration or incineration under supervision of authorised personnel only.



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### (C) Specific Assurances :

IFIA Members shall be committed to providing, upon request, specific assurances to the trade concerning the protection of their confidential business information and to enter into specific security agreements where required.

2.11. IFIA Members should not divulge confidential business information to any third party, except that IFIA Members may share this information with the User Governments that have contracted or mandated them but only to the extent that such information is customarily required for letters of credit or other forms of payment or for Customs, import licensing or exchange control purposes.

2.12. IFIA Members should not request exporters to provide information regarding:

- (i) manufacturing data related to patented, licensed or undisclosed processes, or to processes for which a patent is pending;
- (ii) unpublished technical data other than data necessary to demonstrate compliance with technical regulations or standards;
- (iii) internal pricing, including manufacturing costs;
- (iv) profit levels;
- (v) the terms of contracts between exporters and their suppliers unless it is not otherwise possible for the IFIA Member to conduct the inspection in question. In such cases, the IFIA Member should only request the information necessary for this purpose.

*(Note: This exception typically applies when the exporter is acting not as a principal but as the agent of another party, such as a commission agent for the supplier of the goods or a buying agent acting for the purchaser. In such circumstances, and depending on the requirements of the User Government, the terms of the contract between the agent and the supplier may be needed in order to verify the exact source and origin of the goods and or to verify certain terms of the transaction such as the amount of commission and the price exclusive of commission.)*

2.13. The information referred to in Article 2.12, which IFIA Members shall not otherwise request, may be released voluntarily by the exporter to illustrate a specific case.

### CONFLICTS OF INTEREST

2.14. IFIA Members should, bearing in mind also the provisions on protection of confidential business information in Articles 2.9 to 2.13, maintain procedures to avoid conflicts of interest:

- (i) between IFIA Members and any related entities of the IFIA Members in question, including any entities in which the latter have a financial or commercial interest or any entities which have a financial interest in the IFIA Members in question, and whose shipments the IFIA Members are to inspect;



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- (ii) between IFIA Members and any other entities, including other entities subject to preshipment inspection, with the exception of the government entities contracting or mandating the inspections;
- (iii) with divisions of IFIA Members engaged in activities other than those required to carry out the inspection process.

### DELAYS

2.15. IFIA Members should avoid unreasonable delays in inspection of shipments. Once an IFIA Member and an exporter agree on an inspection date, the IFIA Member should conduct the inspection on that date unless it is rescheduled on a mutually-agreed basis between the exporter and the IFIA Member, or the IFIA Member is prevented from doing so by the exporter or by *force majeure* \*.

\* *Force majeure shall mean "irresistible" compulsion or coercion, unforeseeable course of events excusing from fulfilment of contract".*

2.16. Following receipt of the final documents and completion of the inspection, IFIA Members should, within five working days, either issue a Clean Report of Findings, or equivalent document, or provide a detailed written explanation specifying the reasons for non-issuance. In the latter case, IFIA Members should give exporters the opportunity to present their views in writing and, if exporters so request, arrange for re-inspection at the earliest mutually convenient date.

2.17. Whenever so requested by the exporters, IFIA Members should undertake, prior to the date of physical inspection, a preliminary verification of price and, where applicable, of currency exchange rate, on the basis of the contract between exporter and importer, the proforma invoice and, where applicable, the application for import authorization/Inspection Order. Once a price or currency exchange rate has been accepted by an IFIA Member on the basis of such preliminary verification it should not be withdrawn, providing the goods conform to the import documentation and/or import licence/inspection order. After a preliminary verification has taken place, IFIA Members should immediately inform exporters in writing either of their acceptance or of their detailed reasons for of the price and/or currency exchange rate.

2.18. When required for payment purposes, IFIA Members should send to exporters, or to designated representatives of the exporters, a Report of Findings or Security Label as expeditiously as possible in order to avoid delays in payment. In the event that the original CRF is required by the importer for Customs clearance, the IFIA Member will provide the CRF data to the seller upon request.

2.19. In the event of a clerical error in the Report of Findings or Security Label, IFIA Members should correct the error and forward the corrected information to the appropriate parties as expeditiously as possible.



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### PRICE VERIFICATION

2.20. For the purpose of forming an opinion on the export price or a value for Customs purposes, IFIA Members should conduct price verification according to the following guidelines:

#### 2.20.1: Forming an opinion on the Export Price :

- (A) IFIA Members shall only reject a contract price agreed between an exporter and an importer if they can demonstrate that their findings of an unsatisfactory price are based on a verification process which is in conformity with the criteria set out in subarticles (B) through (E);
- (B) The IFIA Member shall base its price comparison for the verification of the export price on the price(s) of identical or similar goods offered for export from the same country of exportation at or about the same time, under competitive and comparable conditions of sale, in conformity with customary commercial practices and net of any applicable standard discounts. Such comparison shall be based on the following:
  - (i) only prices providing a valid basis of comparison shall be used, taking into account the relevant economic factors pertaining to the country of importation and a country or countries used for price comparison;
  - (ii) the price of goods offered for export to different countries of importation shall not be relied upon to arbitrarily impose the lowest price upon the shipment;
  - (iii) the specific elements listed in subparagraph (C) shall be taken into account.
  - (iv) the date of reference for verifying the export price shall be the date of contract or, in the absence of a contract, the date of the proforma invoice except for:
    - ⇒ contracts stipulating that prices may vary in accordance with certain conditions (e.g. prices ruling at date of despatch) provided consistent with customary commercial practice and permitted under the regulations of the importing country.
    - ⇒ sales by International Tender when the date of dosing of the Tender should be used.
  - (v) where the contract price is expressed in a foreign currency and, for the purpose of price comparison, a conversion has to be made into the currency of the country of supply, the price comparison reference date will be used unless regulations in the importing country stipulate otherwise.
  - (vi) at any stage in the process described above, the IFIA Member shall provide the exporter with an opportunity to explain his price;

(C) when conducting price verification, IFIA Members shall make appropriate allowances for the terms of the sales contract and:



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- (i) generally applicable adjusting factors pertaining to the transaction; these factors shall include but not be limited to the commercial level and quantity of the sale, delivery periods and conditions, price escalation clauses, quality specifications, special design features, special shipping or packing specifications, order size, spot sales, seasonal influences, licence or other intellectual property fees, and services rendered as part of the contract if these are not customarily invoiced separately, they shall also include certain elements relating to the exporter's price, such as the contractual relationship between the exporter and importer;
  - (ii) the following ancillary charges, which are additional to the FOB value, where applicable and permissible under the regulations of the importing country: buying agents or confirming fees, finance or interest charges, transport insurance.
- (D) the verification of transportation charges shall relate only to the agreed price of the mode of transport in the country of exportation as indicated in the sales contract;
- (E) the following shall not be used for price verification purposes:
- (i) the selling price in the country of importation of goods produced in such country;
  - (ii) the price of goods for export from a country other than the country of exportation;
  - (iii) the cost of production;
  - (iv) arbitrary or fictitious prices or values.

### 2.20.2: Forming an opinion on a value for Customs Purposes :

When conducting price verification in order to form an opinion for Customs valuation purposes, the IFIA Member should:

- (A) follow the Customs valuation rules or applicable regulations or requirements of the User Government. *(Note: This is also in conformance with footnote 4 to Article 20 of the WTO Agreement on PSI).*
  - (B) comply with the Customs valuation principles of Article 5 to the extent that these are not contrary to the requirements of the User Government.
- 2.21. (A) IFIA Members should designate one or more officials who shall be available during normal business hours in each city or port in which they maintain a preshipment inspection administrative office to receive and give sympathetic considerations to,



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and render decisions on, exporters complaints or appeals which should be carried out in accordance with the procedures of points (B) & (C) below.

### (B) Complaints to IFIA Members:

- (i) in the first instance, exporters with any complaints concerning preshipment inspection activities should be requested to contact the appropriate Department Manager of the IFIA Member giving details of the case.
- (ii) the IFIA Member should undertake to investigate the complaint expeditiously.
- (iii) if the exporter is not satisfied with the response from the IFIA Member, the exporter may proceed to an Appeal in accordance with the procedures of point C below.

### (C) Appeals to IFIA Members

- (i) Exporters who have grievances concerning preshipment inspection activities, which have not been resolved by discussion with the appropriate department manager of the IFIA Member, under the complaints procedure of point (B) above, may appeal to the IFIA Member's senior management by completing and submitting a "Preshipment Inspection Internal Appeal Form" giving details of the case. This form should be issued by the IFIA Member based on Annex A, attached hereto, which also takes into consideration the requirements of the WTO Agreement on Preshipment Inspection. The exporter should send the completed form to the IFIA Member's Senior Manager(s) whose name(s) should be available upon request from the IFIA Member.
  - (ii) The IFIA Member's designated Senior Manager should undertake to investigate the dispute and respond to the exporter, normally within two working days of receipt of a fully completed "Preshipment Inspection Appeal Form", by either (a) giving the result of the Appeal or (b) advising that further investigation is required and that the result will follow as soon as possible.
- (D) Details of the procedures of points (B) & (C) above should be made available to exporters in accordance with Articles 2.6 & 2.7.



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## ARTICLE 3

### **IMPLEMENTATION OF THE LAWS & REGULATIONS OF THE COUNTRY OF PRESHIPMENT INSPECTION**

IFIA Members should abide by any laws and regulations, relating to preshipment inspection activities, in the country in which preshipment inspection is carried out. *(in the event of a dispute that these laws and regulations do not comply with the WTO Agreement on PSI, the government concerned should pursue the matter in accordance with the dispute procedure as per article 8 of the WTO Agreement on PSI).*

## ARTICLE 4

### **INDEPENDENT REVIEW PROCEDURES**

IFIA Members should, where applicable, abide by the procedures for Independent Reviews established in accordance with the provisions of Article 4 of the WTO Agreement on PSI.

## ARTICLE 5

### **CUSTOMS VALUATION PRINCIPLES**

#### GENERAL PRINCIPLES

- 5.1. (A) When forming an opinion of a value for Customs purposes the IFIA Member shall not require the seller to amend the price in the commercial invoice for payment purposes.
- (B) The Report of Findings (ROF) issued for Customs purposes shall state the IFIA Member's opinion of value for Customs purposes in addition, where applicable, to the seller's invoice price.

#### CUSTOMS VALUATION METHODS

5.2. The Customs Valuation Methods commonly applied by User Governments are:

- (A) Brussels Definition of Value
- (B) GATT Valuation Code
- (C) Export Price



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When forming an opinion of value for Customs purposes, using one of the above valuation methods, the IFIA Member should apply the following principle procedures to the extent that they are not contrary to the requirements of the User Government.

### BRUSSELS DEFINITION OF VALUE ("BDV")

#### 5.3. (A) Basis

The basis of Customs valuation is contained in the following of official authoritative publications: "Customs Valuation: Convention, Recommendations, Opinions, Notes and Studies. and Customs Valuation: Explanatory Notes to the Brussels Definition of Value" available from the World Customs Organisation (*formerly, Customs Cooperation Council*), Rue de l'Industrie 26-38,1040 Brussels, Belgium. This Code of Practice reflects IFIA's interpretation of these publications.

#### (B) Definition

The value for Customs purposes shall be the normal price, that is to say, the price which the goods would fetch on sale in the open market between a buyer and a seller independent of each other.

#### (C) Procedure for establishing the IFIA Member's opinion of value for Customs purposes

(i) The IFIA Member shall establish an opinion of a value for Customs purposes by comparing the seller's invoice price with the prices at which identical or similar goods are sold or offered for sale to the country of importation taking into account, where applicable:

⇒ The conditions for determining the normal price: see Section (D)

⇒ The Valuation Factors: see Section (E)

⇒ The Adjusting Factors: see Section (F)

(ii) In the event that the seller's invoice price is:

⇒ Within the range of export prices of identical or similar goods: the seller's invoice price will be utilised as the basis for the PSI company opinion of the value for Customs purposes.

⇒ Outside the range of export prices of identical or similar goods:

◆ The IFIA Member may request the seller to provide additional information to explain the price.



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- ♦ In the absence of satisfactory information, the IFIA Member's opinion of value for Customs purposes will be based on the prices of identical or similar goods.

### (D) Conditions for the determination of the normal price

#### (i) Assumptions :

- ⇒ The goods are delivered to the buyer at the port/place of introduction into the country of importation.
- ⇒ The seller bears all costs, charges and expenses incidental to the sale and to the delivery of the goods to the port or place of introduction, which are hence included in the normal price.

#### (ii) A sale in the open market between a buyer and seller independent of each other pre-supposes that:

- ⇒ The price is the sole consideration
- ⇒ The price is not influenced by any commercial financial or other relationship, whether by contract or otherwise, between the seller or any person associated in business with him, other than the relationship created by the sale itself.
- ⇒ No part of the proceeds of any subsequent resale, other disposal or use of the goods will accrue, either directly or indirectly, to the seller or any person associated in business with him.

#### (iii) The declared price will not be accepted as an open market price when :

- ⇒ Section (ii) above is not complied with or
- ⇒ The price is lower (unless the variation in price is slight or corresponds with trade practice) than those of identical goods from the same seller to any importer in the country of importation or
- ⇒ The price is considerably lower than those of:
  - ♦ identical goods being sold by other sellers in the same country of exportation to any importer in the country of importation or
  - ♦ similar goods being sold by sellers in the same country of exportation to any importer in the country of importation or
  - ♦ identical or, failing this, similar goods being sold by sellers in other countries for exportation to any importer in the country of importation but taking into account, where applicable, variations in the costs of the factors of production in the countries of exportation.



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### (E) Valuation Factors

#### (i) Definition :

Valuation Factors are the various elements, such as discounts, interest charges, commissions, advance payments, etc., which must be taken into account by addition or deduction, where applicable, in determining the normal price or value for Customs purposes.

#### (ii) Dutiable Valuation Factors :

The following Valuation Factors are dutiable and, if applicable and not already included in the price, should be added to arrive at the normal price:

- ⇒ Carriage and Freight
- ⇒ Insurance
- ⇒ Commissions (including buying commissions) and brokerage costs, charges and expenses of drawing up, outside the country of importation, documents incidental to the introduction of the goods into the country of importation, including consular fees.
- ⇒ Duties and taxes outside the country of importation except those from which the goods have been exempted or have been or will be relieved by means of refund.
- ⇒ Costs of containers, excluding those which are treated as separate articles for the purpose of levying duties of Customs, cost of packing (whether for labour, materials or otherwise).
- ⇒ Charges in respect of the right of use of a patent, design or trade mark in respect of the goods.
- ⇒ Not-freely available discounts (discounts not available to any Buyer) e.g. sole agent's discounts, special/abnormal discounts, etc.
- ⇒ Retrospective discounts and advance payment discounts
- ⇒ Advance payments
- ⇒ The value of "Free of Charge" goods or samples
- ⇒ Seller's expenses paid by the buyer



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### (iii) Non-dutiable Valuation Factors :

The following Valuation Factors are non-dutiable and, if applicable and not already excluded from the price, should be deducted to arrive at the normal price:

- ⇒ Discounts freely available to anyone (*e.g. quantity discounts, cash discounts, etc.*)
- ⇒ Interest charges for deferred payment
- ⇒ Post-entry charges (*e.g. inland transportation charges from the port or place of entry to the final destination, installation or erection charges, etc.*)

### (F) Adjusting Factors

In determining the normal price Adjusting Factors, including but not limited to the following, are taken into account where applicable:

- ⇒ Quantity / unit size
- ⇒ Quality / specifications / trade mark
- ⇒ Packaging
- ⇒ Commercial level
- ⇒ Seasonal influences
- ⇒ Delivery periods and conditions

### GATT VALUATION CODE ("GVC")

#### 5.4 (A) Basis

The basis of Customs Valuation is laid down in the WTO Agreement. Of particular relevance are :

- (i) The WTO "Agreement on Implementation of Article VII of GATT (1994)" commonly known as the "GATT Valuation Code" ("GVC") and
- (ii) The WTO "Decision regarding cases where Customs administrations have reasons to doubt the truth or accuracy of the declared value".

This Code of Practice reflects IFIA's interpretation of the WTO Agreement.



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### (B) Methodology

The GATT Valuation Code requires that the Customs Value should be the Transaction Value, i.e. the price actually paid or payable after adjustment, where applicable, by Valuation Factors (see Section I below) and subject to :

⇒ Compliance with the Transaction Valuation Conditions (see Section D below) and

⇒ Customs being satisfied with the truth or accuracy of the declared Transaction Value

If the Transaction Valuation Conditions are not fulfilled, or if Customs have doubts concerning the truth or accuracy of the declared information, the valuation should be carried-out by another method in the following hierarchical order of application :

- (i) *Comparative Value Method - Comparison with the transaction value(s) of identical goods sold for export to country of importation;*
- (ii) *Comparative Value Method - using similar goods instead of identical goods;*
- (iii) *Deductive Value Method - comparisons with the imported goods or identical or similar imported goods sold in country of importation;*
- (iv) *Computed Value Method - based on cost of materials, fabrication and profit in country of production;*
- (v) *Fall-back Method - based on the previous methods but with greater flexibility*

### (C) Role of Preshipment Inspection

IFIA Members can assist Customs with the implementation of GVC by :

- (i) Systematically providing information in the Report of Findings, concerning the Declared Transaction Value (DTV) and, where applicable :

⇒ a basis for having reasonable doubts about the truth or accuracy of the Declared Transaction Value and

⇒ the Comparative Values of identical or similar goods

- (ii) Upon request, providing information relating to the Deductive, Computed or Fall-back Valuation Methods



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## (D) Transaction Valuation Conditions

(i) The Transaction Value Method may only be used if the following conditions, as per GVC Art. 1.1, are complied with :

CONDITIONS	EXCEPTIONS
(i) No restrictions on use or disposition of the goods by the buyer.	a) Restrictions : - imposed by law in importation country - limiting geographical area of resale - not affecting the value of the goods
(ii) The sale or price is not subject to a condition or consideration for which a value cannot be determined (e.g. the sale is conditional upon the buyer also buying other goods, etc.)	b) Conditions or considerations relating to production or marketing of the goods
(iii) No part of the proceeds of the subsequent resale, disposal or use of the goods disposal or use of the goods accrues to the seller. -	c) Unless adjustment made as per Valuation Factors (see Point I)
(iv) Buyer & seller are not related. (see GVC Art. 15.4 for definition of "related")	d) If related : the relationship should either not influence the price or the value should approximate to valuation by the Comparative, Deductive or Computed Methods. (see Point (D) (ii) below)

(ii) In the event of :

⇒ **Compliance with all Transaction Valuation Conditions or exceptions:** the IFIA Member shall proceed to verify the Declared Transaction Value (see Point E below): this includes transactions involving related buyers and sellers where the IFIA Member shall establish that the relationship has not influenced the price.

*Note: In accordance with GVC Art.1.2b, importers are, at their initiative, entitled to request Customs that the DTV be compared with the Customs Value established by the Deductive or Computed Value Methods: in such situations, Customs may request assistance from the IFIA Member.*

⇒ **Non-compliance with any conditions:** the IFIA Member will proceed to the Comparative Methods of Valuation (see Point F below).



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### (E) Verification of the Declared Transaction Value (DTV)

(i) Provided the Transaction Valuation Conditions are fulfilled, the IFIA Member shall, where possible, establish if there are reasonable doubts concerning the DTV\* by "testing" it against the IFIA Member's price data bank of:

⇒ Other transactions with the country of importation, of identical or similar goods of the same country of origin, or

⇒ In the absence of information on other transactions, non-transactional data (e.g. quotations, prices lists, etc.) relevant to the country of importation, of identical or similar goods of the same country of origin.

*\* For practical purposes, the DTV will be assumed to be the value stated by the seller in his commercial invoice presented to the IFIA Member during PSI.*

(ii) The IFIA Member shall, when carrying-out the above mentioned test, take into account, where applicable :

⇒ Valuation Factors (see Point I below)

⇒ Adjusting Factors (see Point J below)

(iii) If the DTV is:

⇒ **at the same level or higher than the lowest price in the range of identical or similar goods:** the DTV will be accepted by the IFIA Member as the Customs Value (dutiable value).

⇒ **below the lowest price in the range:**

◆ the IFIA Member may request the seller for additional information to explain the price

◆ in the absence of satisfactory information, the IFIA Member shall confirm that it has reasonable doubts about the truth or accuracy of the DTV by stating in the Report of Findings either a:

° **Valuation Opinion:** based on other transactions of identical or similar goods or

° **Valuation Advice:** based on non-transactional data of identical or similar goods.

(iv) In the absence of any information concerning identical or similar goods, in the IFIA member's price data bank, the IFIA Member shall accept the DTV.



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### (F) The Comparative Methods

If the Transaction Valuation Conditions, as per point D above, are not satisfied, the IFIA Member shall, where possible, form a Valuation Opinion of the goods based on a comparison with the lowest price in the range of other transactions, to the same country of importation, of identical goods or, if not available, similar goods of the same country of origin.

In the absence of information on other transactions, the IFIA Member will indicate this in the ROF so that Customs may decide to proceed to the Deductive Value Method.

### (G) The Report of Findings (ROF)

For the guidance of Customs, the IFIA Member shall issue the ROF stating:

- (i) the Declared Transaction Value (DTV): adjusted by applicable Valuation Factors and, where applicable, one of the following :
- (ii) A Valuation Opinion: which is the IFIA Member's opinion of value based on other transactions of identical or similar goods. This opinion is given when either:

⇒ the Transaction Valuation Conditions are complied with but the IFIA Member has reasonable doubts about DTV.

*Note: In the absence of satisfactory evidence from the importer to support the truth or accuracy of the DTV, Customs may decide to proceed to the Comparative Value Method using the IFIA Member's Valuation Opinion for guidance*

or

⇒ the Transaction Valuation Conditions are not complied with.

*Note: Customs may proceed to the Comparative Value Methods using the IFIA Member's Valuation Opinion for guidance.*

- (iii) A Valuation Advice: which is either:

⇒ the IFIA Member's advice based on non-transactional data of identical or similar goods as per Point (E) (i) above. This may provide Customs with reasonable doubts about the DTV.

*Note: In the absence of satisfactory evidence from the importer to support the truth or accuracy of the DTV and in the absence of information on other transactions thereby preventing valuation by the Comparative Value Method, Customs may decide to proceed to the Deductive Value Method.*

or



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⇒ an advice that no information about other transactions is available: thereby preventing the IFIA Member from establishing a value based on the Comparative Methods (Point F above).

*Note: Customs may decide to proceed to the Deductive Method.*

## (H) The Deductive, Computed and Fall-back Methods of Valuation

In cases where it is necessary for Customs to proceed to the Deductive, Computed or Fall-back Value Methods the IFIA Member may, upon request of Customs, provide valuation assistance.

### (I) Valuation Factors

#### (i) Definition

Valuation Factors are the various elements, such as discounts, interest charges, commissions, advance payments, etc., which must be taken into account by addition or deduction, where applicable, in determining the Customs Value.

#### (ii) Dutiable Factors:

The following Valuation Factors are dutiable and, if applicable and not already included in the price, should be added to arrive at the Customs Value:

- ⇒ commission and brokerage, except buying commissions;
- ⇒ the cost of containers which are treated as being one for Customs purposes with the goods in question;
- ⇒ the cost of packing whether for labour or materials;
- ⇒ the value, apportioned as appropriate, of the following goods and services where supplied directly or indirectly by the buyer free of charge or at reduced cost for use in connection with the production and sale for export of the imported goods, to the extent that such value has not been included in the price actually paid or payable:
  - ◆ material, components, parts and similar items incorporated in the imported goods;
  - ◆ tools, dies, moulds and similar items used in the production of the imported goods;
  - ◆ materials consumed in the production of the imported goods;
  - ◆ engineering, development, artwork, design work, and plans and sketches undertaken elsewhere than in the country of importation and necessary for the production of the imported goods;



## INTERNATIONAL FEDERATION OF INSPECTION AGENCIES

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- ⇒ royalties and licence fees related to the goods being valued that the buyer must pay, either directly or indirectly, as a condition of sale of the goods being valued, to the extent that such royalties and fees are not included in the price actually paid or payable;
- ⇒ the value of any part of the proceeds of any subsequent resale, disposal or use of the imported goods that accrues directly or indirectly to the seller;
- ⇒ advance payments.

### (iii) Non-dutiable Valuation Factors:

- ⇒ All discounts except retrospective discounts (provided truth and accuracy not doubted)
- ⇒ The following charges provided they are separately declared in the commercial invoice:
  - ◆ Interest charges for deferred payment
  - ◆ Post-entry charges (*e.g. inland transportation charges from the port or place of entry to the final destination, installation or erection charges, etc.*)
  - ◆ Duties & taxes in the country of importation.

### (iv) Other Valuation Factors:

Depending upon the regulations of the country of importation, the following Valuation Factors may be either dutiable or non-dutiable:

- ⇒ Freight charges up to the port or place of importation
- ⇒ Loading, unloading and handling associated with transporting of the goods
- ⇒ Insurance

### (v) Adjusting Factors

In determining the Valuation Opinion or Valuation Advice, the IFIA Member shall take into account applicable Adjusting Factors, including but not limited to the following:

- ⇒ Quantity / unit size
- ⇒ Packaging
- ⇒ Commercial level

## EXPORT PRICE

- 5.5. The procedure for establishing an opinion of an export price for Customs purposes shall be identical to the procedure set out in Article 2.20.1 except that, subject to the requirements of the User Government, interest charges for deferred payment and post-entry charges are non-dutiable and may be deducted from the opinion of export price.

## PRESHIPMENT INSPECTION INTERNAL APPEAL FORM

**NOTES:**

- A. Exporters with complaints about preshipment inspection (PSI) activities are, in the first instance, requested to discuss the matter with the appropriate department manager of the PSI company. If, following discussions, an exporter is dissatisfied with the result, he is invited to appeal to the PSI company's senior management by completing and submitting this form.
- B. The PSI company's senior management undertake to investigate the grievance and will respond to the exporter, normally within 2 working days of receipt of this form fully completed, by either (a) giving the result of the appeal or (b) advising that further investigation is required and that the result will follow as soon as possible.

*(These procedures take into consideration the WTO Agreement on Preshipment Inspection, Article 2.21)*

**1. EXPORTER**

Company Name : \_\_\_\_\_

Address : \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Telefax No. : \_\_\_\_\_

Telex No.: \_\_\_\_\_

Contact Person : \_\_\_\_\_

**2. EXPORTER'S COMPLAINT DISCUSSIONS**

Prior to completion of this form, the complaint should already have been discussed with the PSI company. Please advise :  
PSI company office location .....  
.....  
Person with whom complaint discussed :

**3. REFERENCE NUMBERS**

Inspection Order Reference No.: \_\_\_\_\_  
(as advised by the preshipment inspection company)

Contract/Order/Proforma Invoice/Final Invoice No. \_\_\_\_\_  
(delete as applicable)

**4. DESCRIPTION OF GOODS**

\_\_\_\_\_

If you wish to appeal that the action of the PSI company is not in accordance with the WTO Agreement on Preshipment Inspection, please complete Section 5. If not applicable, please proceed to Section 6.

**5. NATURE OF GRIEVANCE WITH THE PRESHPMENT INSPECTION COMPANY**

Please indicate, by marking an 'X' in the appropriate box(es) below, which article of the WTO Agreement on Preshipment Inspection ('API') have, in your opinion, not been complied with by the Preshipment Inspection Company.

Category :	API Article No.:	<input type="checkbox"/>	Category :	API Article No.:	<input type="checkbox"/>
* Non-discrimination	2.1	<input type="checkbox"/>	* Delays	2.15	<input type="checkbox"/>
* Site of Inspection	2.3	<input type="checkbox"/>		2.16	<input type="checkbox"/>
* Standards	2.4	<input type="checkbox"/>		2.17	<input type="checkbox"/>
* Transparency	2.5	<input type="checkbox"/>		2.18	<input type="checkbox"/>
	2.6	<input type="checkbox"/>	* Price Verification	2.20 (a)	<input type="checkbox"/>
	2.7	<input type="checkbox"/>	(For export market	2.20 (b)	<input type="checkbox"/>
			price : not customs	2.20 (c)	<input type="checkbox"/>
* Protection of Confidential Business Information	2.9	<input type="checkbox"/>	valuation purposes)	2.20 (d)	<input type="checkbox"/>
	2.11	<input type="checkbox"/>		2.20 (e)	<input type="checkbox"/>
	2.12	<input type="checkbox"/>	* Appeals Procedures	2.21	<input type="checkbox"/>
* Conflicts of Interest	2.14 (a)	<input type="checkbox"/>		2.21 (a)	<input type="checkbox"/>
	2.14 (b)	<input type="checkbox"/>		2.21 (c)	<input type="checkbox"/>
	2.14 (c)	<input type="checkbox"/>			

**Notes :** If your grievance :

- (i) Does not concern the above mentioned categories, please proceed to Section 6.
- (ii) Concerns the above mentioned categories and also relates to PSI carried out in a WTO member country of goods for importation into a WTO member country : you are entitled to submit the dispute to an Independent Review, at least two working days after submission of this form to the PSI company, in accordance with Article 4 of the WTO Agreement on Preshipment Inspection. Further details are available from the PSI company upon request.

**6. SUMMARY OF GRIEVANCE**

*Please advise the facts of the case and summarise the reasons why, in your opinion, the decision or conduct of the pre-shipment inspection company is not acceptable. Please attach copies of relevant documents.*

**7. PROPOSED SOLUTION TO THE GRIEVANCE**

*Please state your proposed solution to the grievance.*

**8. EXPORTER'S DECLARATION**

*I hereby declare that:*

- a. I am an authorised employee of the exporter
- b. The information contained herein is, to the best of my knowledge, correct.

FULL NAME: ..... POSITION: .....  
COMPANY NAME: .....  
SIGNED ..... DATE: ...../...../19.....

## **Appendix H**

### **Directory of International & National Standards Bodies**

## **Appendix H-1**

### **Directory of International Standards Bodies**

**DIRECTORY OF INTERNATIONAL STANDARDS BODIES**  
( INTERNATIONAL FEDERATION OF INSPECTION AGENCIES )



**DIRECTORY - AUGUST 1997**

**I N D E X**

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Section 5	-	Committee Chairmen	-	Page 16
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### Co-opted Council Members

Chairman of the European Regional Committee  
Chairman of the North American Committee

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- R Danvers, ICCS, Hamburg, Germany
  - M Dubois, Cotecna Inspection SA, Geneva
  - J Franck, SGS Far East, Thailand
  - M A Gajda, OMIC Europe Ltd, Derby United Kingdom
  - J Mallion, Alex Stewart, Knowsley, United Kingdom
  - J Michie
  - J Paterson, Inspectorate Griffith, Grangemouth
  - B B Singh, Intertek Testing Services, Burnaby, Canada (alternate)
  - J Nielsen, Inchcape Testing Services, Hamburg)
  - Ed de Smit, Saybolt Nederland
  - Ch Vitrac, Bureau Veritas, Paris

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  - B Leroy, Intertek Testing Services, Paris
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  - G van Genechten, Alfred H Knight, Belgium
  - G Ostermeijer, Control Union, Antwerp
  - S A Thompson, OMIC Europe Ltd, Derby, United Kingdom
  - V Vukosavljevic, Inspectorate, Witham, United Kingdom

5. **INDUSTRIAL COMMITTEE**

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- H W Earnshaw, Lloyd's Register, United Kingdom  
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- G Lester, RCG-Moody Intl United Kingdom (alternate K G Osman)  
- A Simsar, Cotecna, Geneva  
- M Stauffeldt, Intertek Testing Services Brentwood, United Kingdom  
Secretary - G Scotto

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- J Rogers, SGS, Geneva (alternate, S Carr)  
- G Van der Lee, Control Union Netherlands BV, Rotterdam

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- David H Mead, Saybolt Inc, Parsippany, NJ  
- Norman J Powell, SGS Control Services, New York  
Executive Director - Milton M Bush, Arlington, Virginia  
Secretary - Charles B Updike, Schoeman Marsh & Updike, New York, NY

9. **PETROLEUM AND PETROCHEMICAL COMMITTEE**

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Secretary - A R Chamberlain

10. **PSI COMMITTEE**

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Members - N Balchin, SGS Geneva  
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- R M Massey, Cotecna Inspection SA, Geneva (alternate, P Henebry)  
- G Minard, BIVAC International, Paris  
- S Okuma, OMIC Japan (alternate S A Thompson, OMIC Europe)  
- J Siebols, Inspectorate Griffith, Witham, United Kingdom

ASH/TAD  
14.08.97

**International Federation of Inspection Agencies, London**  
**Standard General Conditions**

1. Unless otherwise specifically agreed in writing the Company undertakes services in accordance with these general conditions and accordingly all offers or tenders of service are made subject to the same.  
All resulting contracts, agreements or other arrangements will in all respects be governed by these conditions, except only to the extent that the law of the place where such arrangements or contracts are made or carried out shall preclude any of the conditions and in such case the said local law shall prevail wherever, but only to the extent that, it is at variance with these conditions.
2. The Company is a business enterprise engaged in the trade of inspection. As such, it:
  - (a) carries out inspections, verifications, examinations, tests, samplings, measurements, and similar operations;
  - (b) issues reports and certificates relating to the aforesaid operations;
  - (c) renders advisory services in connection with such matters.
3. The Company acts for the persons or bodies from whom the instructions to act have originated (hereinafter called "the Principal"). No other party is entitled to give instructions particularly on the scope of inspection or delivery of report or certificate, unless so authorised by the Principal.  
The Company will however be deemed irrevocably authorised to deliver at its discretion the report or the certificate to a third party if following instructions by the Principal a promise in this sense had been given to this third party or such a promise implicitly follows from circumstances, trade custom, usage or practice.
4. The Company will provide services in accordance with:
  - (a) the Principal's specific instructions as confirmed by the Company;
  - (b) terms of the Company's Standard Order Form and/or Standard Specification Sheet if used;
  - (c) any relevant trade custom, usage or practice;
  - (d) such methods as the Company shall consider suitable on technical and/or financial grounds.
5. Documents reflecting engagements contracted between the Principal and third parties, such as copies of contracts of sale, letters of credit, bills of lading, etc. are (if received by the Company) considered to be for information only, without extending or restricting the Company's mission and obligations.
6. The Company's standard services are as follows:
  - (a) quantitative and/or qualitative inspection;
  - (b) inspection of condition of goods, packing, containers and transportation;
  - (c) inspection of loading or discharging;
  - (d) sampling;
  - (e) Laboratory analysis or other testing.
7. Special services where the same exceed the scope of standard services as referred to in paragraph 6 will only be undertaken by the Company by particular arrangement. Such special services are illustratively not exhaustively:
  - (a) qualitative and/or quantitative guarantees;
  - (b) grouped services including concurrent and consequent operations;
  - (c) supervision of full industrial project schemes, including consulting, expediting and progress reporting.
8. Subject to the Principal's instructions, the Company will issue reports and certificates of inspection which reflect statements of opinions made with due care within the limitation of instructions received but the Company is under no obligation to refer to or report upon any facts or circumstances which are outside the specific instructions received.
9. The Principal agrees that he will:
  - (a) ensure that instructions to the Company are given in due time to enable the required services to be performed effectively;
  - (b) procure all necessary access for the Company's Representatives to goods, premises, installations and transport;
  - (c) supply, if required, any special instrument necessary for the performance of the required services;
  - (d) ensure that all necessary measures are taken for safety and security of working conditions, sites and installations during the performance of services and will not rely, in this respect, on the Company's advice whether required or not;
  - (e) take all necessary steps to eliminate or remedy any obstruction to or interruptions in the performance of the required services;
  - (f) fully exercise all his rights and discharge all his liabilities under the contract of sale whether or not a report or certificate has been issued by the Company failing which the Company shall be under no obligation to the Principal.
10. The Company undertakes to exercise due care and skill in the performance of its services and accepts responsibility only for gross negligence proven by Principals.  
The liability of the Company in respect of any claims for loss, damage or expense of whatsoever nature and howsoever arising shall in no circumstances exceed a total aggregate sum equal to ten times the amount of the fee or commission payable in respect of the specific service required under the particular contract which gives rise to such claims. Where the fee or commission payable relates to a number of services and a claim arises in respect of one of those services the fee or commission shall be apportioned for the purposes of this paragraph by reference to the estimated time involved in the performance of each service.
11. The Principal shall guarantee, hold harmless and indemnify the Company and its servants, agents or subcontractors against all claims made by any third party for loss, damage or expense of whatsoever nature and howsoever arising relating to the performance, purported performance or non-performance, of any services to the extent that the aggregate of any such claims relating to any one service exceed the limit mentioned in paragraph 10.
12. The Principal will punctually pay not later than 30 days after the relevant invoice date or in such other manner as may have been agreed in writing all proper charges rendered by the Company failing which interest will become due at the rate of two per cent per month from the date of invoice.
13. In the event of the Company being prevented by reason of any cause whatsoever outside the Company's control from performing or completing any service for which an order has been given or an agreement made, the Principal will pay to the Company:
  - (a) the amount of all abortive expenditure actually made or incurred;
  - (b) a proportion of the agreed fee or commission equal to the proportion (if any) of the service actually carried out;and the Company shall be relieved of all responsibility whatsoever for the partial or total non-performance of the required services.

## **Appendix H-2**

### **Directory of National Standards Bodies**

# NATIONAL STANDARDS BODIES

## Australia

- Standards Australia

## Canada

- The Standards Council of Canada
- Canadian Standards Organisation (CSA)

## Colombia

- Instituto Colombiano de Normas Tecnicas y Certificacion (ICONTEC)

## Denmark

- Dansk Standard (DS)

## Egypt

- Egyptian Organization for Standardization and Quality Control (EOS)  
2 Latin America Street  
Garden City, Egypt  
Phone: 20 2 354 9720  
Fax: 20 2 355 7841

## Finland

- Finland's Standards Association (SFS)

## France

- Association francaise de normalisation (AFNOR)
- Electricite de France (EDF)

## Germany

- Deutsches Institut fur Normung (DIN)

## Greece

- Hellenic Organization for Standardization (ELOT)

## Ireland

- National Standards Authority of Ireland (NSAI)

## Iceland

- Icelandic Council for Standardization (STRI)

## Italy

- Ente Nazionale Italiano di Unificazione (UNI)

### Japan

- Japanese Industrial Standards Committee (JISC)
- Japanese Industrial Standards (JIS)

### Malaysia

- Department of Standards Malaysia (DSM)

### Morocco

- Service de Normalisation Industrielle Marocaine (SNIMA)

### Netherlands

- Nederlands Normalisatie-Instituut (NNI)

### New Zealand

- Standards New Zealand (SNZ) (Chief Executive Dr. Kaye McAulay 7/97)

### Norway

- Norges Standardiseringsforbund (NSF)

### Portugal

- Instituto Portugues da Qualidade (IPQ)

### Saudi Arabia

- Saudi Arabian Standards Organization (SASO)

### Slovenia

- Standards and Metrology Institute (SMIS)

### Spain

- Asociacion Espanola de Normalizacion y Certificacion (AENOR)

### Sweden

- SIS ú Standardiseringen i Sverige (SIS)

### United Kingdom

- British Standards Institution (BSI)

### Zimbabwe

- Standards Association of Zimbabwe  
P.O. Box 2259  
Harare



---

## Name and address of standards bodies

---

**CEN**

36, Rue de Stassart  
1050 BRUXELLES  
Tp: + 32 (2) 550.08.11  
Fx:: + 32 (2) 550.08.19  
X 400...C=B2,  
A=RTT,  
P=CENCLC  
G=BEL, S=CEN  
Internet ..CEN@CLCBEL.BE

**Österreichisches Normungsinstitut (ÖN)**

POSTFACH 130  
Heinestraße 38  
A-1021 Wien 2  
Tp: + 43.1.213.00  
Tx: + (047) 115960 norm a  
TFX.+ 43.1.213.00.650  
TG: austrianorm

**Institut Belge de Normalisation/Belgisch**

Instituut voor Normalisatie (IBN/BIN)  
Avenue de la Brabançonne 29  
Brabançonnelaan 29  
B-1000 Bruxelles/Brussel  
Tp : +32.2.738.01.11  
Tfx : +32.2.733.42.64  
TG: benor

**Dansk Standard (DS)**

Baunegaardsvej 73  
DK-2900 Hellerup  
TP: + 45.39.77.01.01  
Tx: (055) 119203 ds stand  
Tfx + 45.39.77.02.02  
TG: danskstandard  
TTX: 238-1119203=dsstand

**Suomen Standardisoimisliitto r.y. (SFS)**

PO Box 116  
FI-00241 Helsinki  
Tp: + 358.0.149.93.31

Tx: (057) 122303 stand sf  
Tfx + 358.0.146.49.25  
TG: finnstandard

**Association Française de Normalisation  
(AFNOR)**

Tour Europe  
F-92049 Paris la Défense (Cedex 7)  
Tp: + 33.1.42.91.55.55  
Tx: (042) 611974 afnor f  
Tfx: +33.1.42.91.56.56  
TTX 933-142915611=afnor  
TG: afnor courbevoie

**Deutsches Institut für Normung e.V. (DIN)**

D-10772 Berlin  
Tp: + 49.30.26.01.1  
Tx: (041) 184273 din d  
Tfx: + 49.30.26.01.12.31  
TTX: 2627-308896=din  
TG: deutschnormen berlin

**Hellenic Organization for Standardization  
(ELOT)**

313, Acharnon  
GR-11145 Athens  
TP: + 30.1.228.00.01  
Tx: (0601) 2196270 elot gr  
Tfx: + 30.1.202.07.76  
TG: elotyp athens

**The National Standards Authority of Ireland (NSAI)**

Ballymun road  
IRL - Dublin 9  
Tp: + 353.1.807.38.00  
Tx: (0500) 32501olas ei  
Tfx: + 353.1.807.38.38  
TG: research dublin

**Ente Nazionale Italiano di Unificazione (UNI)**

Via Battistotti Sassi, 11b  
I-20133 Milano  
Tp: + 39.2.70.02.41  
Tx: (043) 312481 uni i  
Tfx: + 39.2.70.10.61.06 or + 39.2.70.10.61.49  
TG: unificazione

**Inspection du Travail et des Mines (ITM)**

Boîte Postale 27  
26, rue Zithe

L-2010 Luxembourg  
Tp: + 352.478.61.54  
Tx: (0402) 2985 mintss lu  
Tfx: + 352.49.14.47

**Nederlands Normalisatie-Instituut (NNI)**

Postbus 5059  
Kalfjeslaan 2  
NL-2600 GB Delft  
Tp: + 31.15.269.03.90  
Tx: (044) 38.144.nni nl  
Tfx: + 31.15.269.01.90  
TG: normalisatie

**Instituto Português da Qualidade (IPQ)**

Rua C, Av. dos Tres Vales  
P-2825 Monte da Caparica  
Tp: + 351.1.294.81.00  
Tx: (0404) 13042 qualit p  
Tfx: + 351.1.294.81.01 or + 351.1.294.82.22  
TG: igpai

**Asociación Española de Normalización y Certificación (AENOR)**

Calle Fernández de la Hoz, 52  
E-28010 Madrid  
Tp: +34.1.432.60.00  
Tx: (052) 46545 unor e  
Tfx: + 34.1.310.49.76  
TG: aenor

**Standardiseringen i Sverige  
(SIS)**

Box 6455  
S-113 82 Stockholm  
Tp: + 46.8.610.30.00  
Tx (054) 17453 sis s  
Tfx: +46.8.30.77.57  
TG standardis

**British Standards Institution (BSI)**

389 Chiswick High Road  
GB-London W4 4AL  
Tp: +44.181.996.90.00  
Tfx: +44.181.996.74.00

**CENELEC**

35, Rue de Stassart  
B - 1050 BRUXELLES  
Tp: + 32 (2) 519.68.71  
Fx : +32 (2) 519.69.19

**Österreichischer Verband für Elektrotechnik (ÖVE)**

Eschenbachgasse 9  
A-1010 Wien  
Tel: +43.1.587.63.73  
Tfx: +43.1.586.74.08

**Comité Electrotechnique Belge (CEB)**

Belgisch Elektrotechnisch Comité (BEC)  
9, Avenue Fr. Van Kalken  
B-1070 Bruxelles  
Tp: + 32.2.556.01.10  
Tfx: + 32.2.556.01.20  
TG: CEB TF 5560110 - Bruxelles

**Dansk Standard (DS)**

Electrotechnical Sector  
Baunegaardsvej 73  
DK-2900 Hellerup  
Danish Standards Association)  
Tp: + 45.39.77.01.01  
Tfx: + 45.39.77.02.02  
Tx: 11.92.03. DS STAND

**Deutsche Elektrotechnische Kommission im DIN  
und VDE (DKE)**

Stresemannallee 15  
D - 60596 Frankfurt / Main  
Tel: +49.69.6308-0  
Tx: 41 4-12871 vdetz  
Tfx: +49.69.6312-925  
Teletex: 2627-699798=DKED  
Tg: ELEKTROBUND

**Asociación Española de Normalización  
y Certificación - AENOR**

Comité Electrotécnico Español  
Fernández de la Hoz 52  
E-28010 Madrid  
Tp: + 34.1.432.60.00  
Tfx: + 34.1.310.45.96  
Tx: + 46.545-UNOR E

**Hellenic Organization for Standardization (ELOT)**

Acharnon Street 313  
GR - 111 45 Athens  
Tp: + 30.1.201.5025  
Tx + 601.219.670 elot gr  
Tfx: + 30.1.202.0776

**Electro-Technical Council of Ireland (ETCI)**

ESB office  
Parnell Avenue,  
Harold's Cross  
IRL - Dublin 12  
Tp: + 353.1.454.58.19  
Tfx: + 353.1.454.58.21

**Comitato Elettrotecnico Italiano (CEI)**

Viale Monza 259  
I - 20126 Milano  
Tp: + 39. 2. 25. 77.31  
Tx: + 43.31.22.07 ceitalia  
Tfx: + 39.2.25.773.21  
TG: ELETROCOMIT MILANO

**Finnish Electrotechnical Standards Association (SESKO)**

Särkiniementie 3  
P.O. Box 134  
FIN - 00211 HELSINKI  
Tp: + 358.0.696.391  
Tfx: + 358.0.677.059

**Union Technique de l'Electricité (UTE)**

Immeuble Lavoisier  
F-92052 Paris La Defense CEDEX  
Tf: + 33.1. 46.91.11.11  
Tx + 42.620816 cefute  
Tfx  
"UTE, Approval Dept" + 33.1.47.89.45.87  
"UTE, All Services" + 33.1.47.89.47.75  
"UTE, Standardization Dept" + 33.1.46.91.11.60

**British Electrotechnical Committee (BEC)**

British Standards Institution (BSI)  
389, Chiswick High Road  
GB London W4 4AL  
Tp: + 44.181.996.9000  
Tfx: + 44.181.996.7799  
TG: STANDARDS LONDON W1

**Instituto Português da Qualidade (IPQ)**

Rua C à Av. dos Três Vales  
P-2825 Monte da Caparica  
Tp: + 351.1.294.81.00  
Tfx: + 351.1.294.81.01

**Svenska Elektriska Kommissionen (SEK)**

Kistagången 19  
Box 1284  
S - 164 28 KISTA STOCKHOLM

Tp: +46.8.444.14.00  
Telex +54 17109 elnorm  
Tfx: +46.8.444.14.30  
Teletex: 2401-8126725  
Telegrams: ELNORM

**Service de l'Energie de l'Etat (SEE)**

L-2227 Luxembourg  
Postal adress:  
c/o Service de l'Energie de l'Etat  
B.P. No 10  
L-2010 Luxembourg  
Tp: +352.46.97.46-1  
Tfx: +352.22.25.24

**Nederlands Elektrotechnisch-Comité (NEC)**

Postbus 5059  
Kalfjeslaan 2  
NL-2600 GB Delft  
Tp: + 31.15.69.03.90  
Tx: (044) 38.144.nni nl  
Tfx: + 31.15.69.01.90  
TG: NORMALISATIE DELFT

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[webmaster@echo.lu](mailto:webmaster@echo.lu)

# **Appendix I**

## **European Standards EN 30**

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UDC 643.334:683.995:662.76

Including Amendment 2:1979

Key words: gas appliances, cooking devices, cookers, ovens, grills, hotplates, specifications, safety devices, tests, performance tests, marking.

English version

## Domestic cooking appliances burning gas

Appareils de cuisson domestiques  
utilisant les combustibles gazeux

Haushalt-Kochgeräte  
für gasförmige Brennstoffe

This European Standard was accepted by CEN on 1979-01-19. The CEN members are bound to adhere to the CEN Internal Regulations which specify under which conditions this European Standard has to be given, without any alteration, the status of a national standard.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Central Secretariat or to any CEN member.

This European Standard is established by CEN in three official versions (English, French, German). A translation made by another member under its own responsibility, in its own language, and notified to CEN, has the same status.

CEN Members are the national standards organizations of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

# CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue Bréderode, 2, B-1000 Brussels

## **Brief history**

### **EN 30 Edition 2 incorporating Amendment 1**

The European Standard EN 30 has been produced by the technical committee CEN/TC 49 'Gas cooking appliances'.

A first edition of this standard was published on 1976-09-25.

The second edition, including Amendment 1 of March 1977, was adopted by CEN on 1979-01-19 following its acceptance by the following member countries:

Belgium, Denmark, France, Germany, Portugal, Spain, United Kingdom.

It is subject to subsequent amendments or additions resulting from the studies of the technical committee CEN/TC 49, and ratified in accordance with the procedures for revision laid down in the framework for adaptation to technical development.

### **Amendment 2, 1980 (affecting all language versions)**

Amendment 2 to the European Standard EN 30, produced by the technical committee CEN/TC 49 'Gas cooking appliances' in 1978, was adopted by CEN on 1979-10-26 following its acceptance by the following member countries:

Belgium, Denmark, France, Germany, Ireland, Spain, United Kingdom.

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## **Appendix J**

### **British Standards EN 60675**

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Central Secretariat, rue de Stassart 35, B-1050 Brussels

BRITISH STANDARD

BS EN  
60675 : 1995

# Household electric direct-acting room heaters — Methods for measuring performance

The European Standard EN 60675 : 1995 has the status of a  
British Standard

## Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee CPL/59, Performance of household electrical appliances, upon which the following bodies were represented:

- Association of Manufacturers of Domestic Electrical Appliances
- Consumer Policy Committee of BSI
- Consumers' Association
- Department of the Environment (Energy Efficiency Office)
- Electricity Association
- Portable Electric Tool Manufacturers' Association
- Rotating Electrical Machines Association (BEAMA Ltd.)

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 June 1995

© BSI 1995

The following BSI references relate to the work on this standard:  
Committee reference CPL/59  
Draft for comment 91/20912 DC

ISBN 0 580 24308 7

### Amendments issued since publication

Amd. No.	Date	Text affected

## National foreword

This British Standard has been prepared by Technical Committee CPL/59 and is the English language version of EN 60675 : 1995 *Household electric direct-acting room heaters — Methods of measuring performance*, published by the European Committee for Electrotechnical Standardization (CENELEC). It is identical with IEC 675 : 1994, with the exception that two notes have been added to annex D by CENELEC which are indicated by a single line in the margin.

This standard supersedes BS 3999 : Part 14 : 1982 which will be withdrawn on 1 February 1996 in accordance with the CENELEC Internal Regulations.

### Cross-references

Publication referred to	Corresponding British Standard
HD 446.1 S1 : 1984	BS 4937 <i>International thermocouple reference tables</i>
IEC 584-1 : 1977	

*Product certification.* Users of this British Standard are advised to consider the desirability of third party certification of product conformity with this British Standard based on testing and continuing surveillance, which may be coupled with assessment of a supplier's quality systems against the appropriate Part of the BS EN 9000 series.

Enquiries as to the availability of third party certification schemes will be forwarded by BSI to the Association of British Certification Bodies. If a third party certification scheme does not already exist, users should consider approaching an appropriate body from the list of Association members.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

---

ICS 97.100

Descriptors: Household electrical appliances, heaters, performance, characteristics, measurements

English version

## Household electric direct-acting room heaters Methods for measuring performance

(IEC 675 : 1994)

Appareils électrodomestiques de chauffage  
des locaux à action directe  
Méthodes de mesure de l'aptitude à la  
fonction  
(CEI 675 : 1994)

Elektrische Haushalt-Direktheizgeräte  
Prüfverfahren zur Bestimmung der  
Gebrauchseigenschaft  
(IEC 675 : 1994)

This European Standard was approved by CENELEC on 1994-12-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

### CENELEC

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

### Foreword

The text of document 59(CO)51, future edition 2 of IEC 675, prepared by SC 59C, Heating appliances, of IEC TC 59, Performance of household electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60675 on 1994-12-06.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-02-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-02-01

Annexes designated 'normative' are part of the body of the standard. Annexes designated 'informative' are given for information only. In this standard, annexes A and ZA are normative and annexes B, C and D are informative. Annex ZA has been added by CENELEC.

In the official version, for annex D, Bibliography, the following notes have to be added for the standards indicated:

IEC 335-2-30

NOTE: Harmonized as EN 60335-2-30 : 1992 (modified)

IEC 704-2-2

NOTE: Harmonized as HD 423-2-2 S1 : 1988 (not modified).

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## **Appendix K**

### **Current Status of the Product Inspection System in Egypt for Non-Food Products**

## **Current Status of the Product Inspection System in Egypt for Non-Food Products**

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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.

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.

### **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.

### **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.

#### General Organization for Import and Export Control (GOIEC)

GOIEC, 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). GOIEC 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.

GOIEC 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, GOIEC maintains a staff of 3000, about equally divided between import and export.

GOIEC'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.

#### **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 GOIEC 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 credibility of 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.

#### 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.
- GOIEC 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 micro-biological 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.

#### GOIEC 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.

### **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.

### **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.

### **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.

### **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.

### **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 GOIEC 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 GOIEC. 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.

### **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. Interestingly 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.

#### **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.

### **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 GOIEC 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.

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.

#### **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 3.2.2.3 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.

1. 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.
2. 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.

3. The shelf life for tea is 3 years while that for coffee, a similar stable product is 2 years.
4. 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.
5. 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 3.3.1.1 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).

#### **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.

The section above provides additional information on the problems associated with Egypt's importing system.

**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>GOIEC</u>	<u>MOH</u>	<u>MOA 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.

### **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. The table 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.

### **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.

### **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.

### **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.

### **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.

### **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.

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.

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.

### **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.

### **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.

### **Other problem areas**

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). GOIEC 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 GOIEC, 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 almost 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 GOIEC (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.

## دراسة عن مشروع رائد لشهادات الفحص المسبق للسلع المستوردة

أعدت  
للهيئة العامة للرقابة على  
الصادرات والواردات  
وزارة التجارة والتموين

مقدمة الى  
الوكالة الامريكية للتنمية الدولية

مقدمة من  
شركة ناثان اسوشيتس انكوربوريشن

عقد رقم  
...-...-...-C-263-96-...-...



مارس ١٩٩٨

## دراسة عن مشروع رائد لشهادات الفحص المسبق للسلع المستوردة

معدة لاجل:

الهيئة العامة للرقابة على الصادرات والواردات  
وزارة التجارة والتموين - حكومة جمهورية مصر العربية

مقدمة من :

شركة ناثان اسوشيتس انكوربوريشن  
ارلنجتون - فيرجينيا - الولايات المتحدة  
عقد رقم : ٢٦٣-C-٠٠-٩٦-٠٠٠-٠٠٠٠٠٠٠٠

اعداد :

السيد/ادوارد نيمروف - رئيس فريق الدراسة  
الصناعات الهندسية - بالم سيتي - الولايات المتحدة  
دكتور/احمد محروس محرم  
نظم ادارة الجودة ، القاهرة - مصر  
مهندس/ممدوح السيد  
آلايد كوربوريشن ايجيبت - القاهرة - مصر

مارس ١٩٩٨



## الملخص التنفيذي

### الغرض من الدراسة:

بدأت الحكومة المصرية برنامجاً استراتيجياً 'للاصلاح الاقتصادي وأعادة البناء، يستهدف تحسين كفاءة الصناعة المصرية وإمكانات تصدير منتجاتها من السلع الصناعية. والبرنامج مدفوع بالحاجة الى تحسين الأداء الشامل للاقتصاد المصرى. وجوهر هذا البرنامج هو زيادة التجارة الكونية. وحتى يصبح هذا الأمر حقيقة، فأن عملية التصدير والاستيراد المصرية تحتاج الى تحديث وتبسيط وفحص من اجل تيسيرها، حتى يتم ايجاد نظام كفاء لحركة المنتجات من خلال الموانى دون تعريض سلامة المستهلك او الأمن القومى للخطر.

وتعتبر الدراسة الحالية جزءاً مكملًا لجهود مشروع ديبرا DEBRA لتطوير واصلاح السياسة التجارية لتسهيل التجارة والنمو الاقتصادى فى ظل عولمة الاقتصاد. وقام بأعداد الدراسة الأستاذ/ أدوارد نيميروف (رئيس الفريق)، د. احمد محروس محرم، والمهندس/ممدوح السيد. وقام بتصميم الدراسة وأعمال التنسيق والمتابعة د.رولو ايرك، والأستاذ /عبد الوهاب هيكل ، من خبراء مشروع ديبرا.

### الهدف من الدراسة:

تيسير عمليات اختبار وفحص السلع المستوردة دون تعريض سلامة المستهلك، والصحة العامة، وحماية البيئة، للخطر . وسوف يترتب على هذا الأمر بعض التوفير فى نفقات الحكومة والصناعات، الأمر الذى يثرى عمليات التجارة.

### نطاق الدراسة:

تركز هذه الدراسة على الطرائق البديلة لعمليات فحص واختبار السلع خلال عبورها الموانى المصرية. وقام فريق الدراسة بالبحث وتجميع المعلومات والحقائق خلال الفترة من ١٤ فبراير حتى ٢٥ مارس عام ١٩٩٨. وقد قام أعضاء الفريق خلال هذه الفترة بمراجعة جميع الدراسات والمستندات الملائمة، وقاموا بزيارة الجهات الحكومية والصناعية لاجراء المقابلات الشخصية وعقد اللقاءات مع أعضاء هذه الجهات التى تم ذكرها فى متن تقرير الدراسة.

## خلاصة الدراسة :

استنادا الى المعلومات التي تم تجميعها ، فقد انتهت الدراسة الى وجود نظم بديلة للنظام الحالي القائم، مثل الفحص المسبق، وقبول شهادات المطابقة.

كما ان العديد من المواصفات القياسية المصرية وتطبيقاتها، غير متوافقة مع المعايير المقبولة دوليا، والكثير منها لا يتطابق مع اتفاقية العوائق الفنية على التجارة لمنظمة التجارة العالمية .

ويتطلب النظام الحالي ، قيام الهيئة العامة للرقابة على الصادرات والواردات بالفحص والاختبار الالزامى للمنتجات المستوردة بقصد ضمان السلامة، والصحة العامة، وحماية البيئة . كما يبدو ايضا ان الهيئة العامة للرقابة على الصادرات والواردات تقوم باختيار العديد من المنتجات بغرض حماية المستهلك، وضمان جودة المنتجات .

وهناك الزام على الحكومة المصرية ان توافق على وضع تعريف واضح للمواصفات القياسية والاجراءات الفنية ، وضمان ان يتم استخدامها بشكل سليم ومتسق من جانب جميع الوزارات والهيئات المعنية .

وينبغي ان نلاحظ ان القائمة الرسمية للبنود الى يتم فحصها واختبارها، والتي قدمتها الهيئة العامة للرقابة على الصادرات والواردات الى خبراء مشروع ديبورا، تحتوى على (١٣٠) بندا، منها (٢٦) بندا من المنتجات الغذائية والزراعية . وتحتوى القائمة على مستويات او مجموعات من المنتجات التي لا علاقة لها بالسلامة، والصحة العامة او البيئة . وقد يكون من المرغوب فيه، ان لم يكون من الامور الاساسية، ان يتم ايضاح صور عدم الاتساق المشار اليها، فى المستقبل القريب . ويحتاج الامر الى اجراء دراسة لمعرفة الى اى حد يمكن مقارنة هذه القائمة بالمواصفات القياسية الالزامية التى يترأوح عددها بين ٣٢٠-٣٤٠ مواصفة قياسية صادرة عن الهيئة المصرية للتوحيد القياسى .

## ملخص التوصيات :

أولاً: تخفيض عدد المنتجات المستوردة المطلوب فحصها عند نقطة الدخول:

ويمكن تحقيق ذلك على النحو التالي:

- ١- الإفراج الفوري عن المنتجات التي تحمل علامة أمان معترف بها دولياً، دون الحاجة إلى إجراء المزيد من الاختبار والفحص، متى كانت مصحوبة بشهادة معتمدة من جهة موثوق بها. ويمكن إجراء فحص عشوائي فقط للتأكد من المطابقة.
- ٢- الإفراج الفوري عن المنتجات التي سبق فحصها واختبارها طبقاً لمواصفات مقبولة دولياً في دولة المنشأ، في أحد المعامل المعتمدة، دون الحاجة إلى إجراء المزيد من الاختبار والفحص، متى كانت مصحوبة بشهادة معتمدة، ويمكن إجراء فحص عشوائي فقط للتأكد من المطابقة .
- ٣- الإفراج الفوري عن المنتجات التي تم اختبارها بواسطة شركة مصرية خاصة معتمدة ومستوفاة للمتطلبات الإلزامية، متى كانت هذه الشركة معترف بها من الهيئة العامة للرقابة على الصادرات والواردات أو السلطة المصرية المختصة، أو من أي معمل معترف به وينتمي إلى طرف ثالث، مع الاكتفاء بالفحص العشوائي للتأكد من المطابقة.
- ٤- يكون للهيئة العامة للرقابة على الصادرات والواردات الحق في فحص واختبار جميع المنتجات التي لم يسبق فحصها واختبارها عند ميناء الدخول، سواء في معاملها، أو بواسطة طرف ثالث معترف به.
- ٥- إنشاء سجل للمنتجات التي يتكرر استيرادها، والتي تتفق مع المتطلبات المصرية، ويشهد تاريخها السابق بالالتزام، أو تلك المنتجات الحاصلة على شهادة من جهة معتمدة تفيد الالتزام بمتطلبات السلامة والصحة والبيئة، مع الاكتفاء بالفحص العشوائي للتأكد من المطابقة.
- ٦- تيسير عمليات الفحص في الموانئ، وإيجاد قدر من التنسيق بين سلطات الجمارك والهيئة العامة للرقابة على الصادرات والواردات .

### ثانياً: تسجيل المنتجات المتكرر استيرادها:

توصى الدراسة بأن تنشئ الهيئة العامة للرقابة على الصادرات والواردات سجلاً للمنتجات التي يتكرر استيرادها، والتي تتفق مع المتطلبات المصرية، بحيث يتم تداولها بحرية داخل السوق المصري، والتي تتكون من القائمة الإلزامية (القانون رقم ١٧٩ لسنة ١٩٨٦).

ويجب أن تتضمن هذه القائمة المواصفات المصرية أو إحدى المواصفات العالمية التالية: **ISO, IEC, ANSI, BS**. ويجب الإفراج الفوري عن المنتجات المسجلة عند دخولها الموانئ المصرية دون حاجة إلى مزيد من الفحص والاختبار. كما توصى الدراسة أيضاً، بأن تقوم الهيئة العامة للرقابة على الصادرات والواردات، وجهة تابعة للقطاع الخاص، بإنشاء نظام مماثل لتسجيل المنتجات المصدرة من أجل تيسير النظام الراهن لفحص الصادرات.

ويجدر بالذكر أن الوكالة الأمريكية للتنمية الدولية USAID قامت بتمويل مشروع يهدف إلى إنشاء شبكة للحاسبات الآلية في قطاع التجارة الخارجية بوزارة التجارة والتموين. ويبدو أن الكثير من البيانات المطلوبة لتطوير قاعدة بيانات لنظام التسجيل المقترح، يمكن الحصول عليها من هذا النظام، ومن مصلحة الجمارك.

### ثالثاً، نظام الفحص قبل الشحن:

ينبغي على الحكومة المصرية أن تنشئ نظاماً وإجراءات للاختبار والاعتراف، والتسجيل، والتقييم المستمر لشركات الفحص التي لديها القدرة على إجراء ذلك. ويجب الإعلان عن أسماء شركات الفحص المعتمدة لكافة المستوردين والصناعات المحلية. وقد تضمنت الدراسة المتطلبات الواجب توافرها، ومؤهلات شركات الفحص اللازمة لاعتمادها.

### رابعاً: التوافق بين المواصفات المصرية والمعايير الدولية:

فيما يتعلق بضرورة إحداث التوافق بين المواصفات القياسية المصرية والمعايير الدولية ينبغي القيام بما يلي:

- ١- الإسراع بعملية تنسيق المواصفات القياسية المصرية مع المواصفات العالمية، ISO, IEC, ITU حيثما تتواجد. واتباع المنهج الأوربي معناه تبني هذه المواصفات القياسية بشكل مباشر.

٢- وقف العمل بالموصفات الإلزامية التي تستند إلى معايير الجودة، وقصر الإجراءات الفنية على جوانب المنتجات المتعلقة بالصحة، وحماية البيئة، والنواحي الثقافية والجغرافية.

٣- إنشاء جهاز قومي لتحديد المنتجات التي ينبغي إخضاعها للتنظيمات، والقواعد الفنية المطلوبة للرقابة. ولقد انشئ حديثاً " المجلس القومي للاعتماد" ، ونعتقد بقدرته على القيام بهذه الوظيفة إذا تم إعادة تنظيمه ليقوم بهذه المهمة.

٤- الاعتراف بعلامات السلامة المقبولة دولياً عندما تكون مصحوبة بشهادة معتمدة من جهة معترف بها.

#### خامساً: إنشاء جهاز قومي للمطابقة وحماية المستهلك:

من المفضل دمج معامل الهيئة العامة للرقابة على الصادرات والواردات والهيئة المصرية للتوحيد القياسي وبعض وظائفهما في جهاز أو هيئة قومية للفحص والاختبار، وذلك كخطوة أولى . ويكون الهدف من إنشاء هذا الجهاز القومي مايلي:

١- تنمية الصادرات من خلال تقديم نظام لتقييم المطابقة للمنتجات المصرية معترف به دولياً.

٢- تقديم شهادات مطابقة لعلامات السلامة الدولية للسلع المصنوعة المنتجة دولياً ومحلياً.

٣- تقديم شهادات مطابقة للإجراءات الفنية المصرية.

٤- تقديم خدمات نقاط التفتيش كاستجابة لمتطلبات أجهزة حماية المستهلك والسلطات المسؤولة عن جودة وسلامة المنتجات المطروحة للبيع في السوق المصري.

٥- تجنب التناقضات المكلفة في نتائج الاختبار الناجمة عن وجود أجهزة فحص حكومية منفصلة.

٦- إزالة الازدواجية المكلفة لجهود عمليات الفحص الحكومية.

وفي حالة عدم إمكانية دمج الهيئة العامة للرقابة على الصادرات والواردات والهيئة المصرية للتوحيد القياسي خلال فترة زمنية معقولة، فإن الدراسة توصي بأن يتم تنفيذ ذلك على مرحلتين هما:

- أ- اعلان ان معامل الهيئة العامة للرقابة على الصادرات والواردات هي المعامل القومية لتقييم المطابقة ، والمخول لها حق إصدار شهادات مطابقة المنتجات، والقيام بعمليات الفحص والاختبارات، المطلوبة من جانب وزارة التجارة والتموين.
- ب- العمل تدريجيا على دمج العديد من الوظائف التي تؤديها الهيئة المصرية للتوحيد القياسى حاليا، فى الجهاز القومى المقترح.

#### سادسا: إنشاء إدارة لتوكيد الجودة:

توصى الدراسة بإنشاء إدارة لتوكيد الجودة تابعة للهيئة العامة للرقابة على الصادرات والواردات لضمان استمرار المطابقة مع متطلبات الأيزو ٩٠٠٠ (ISO 9000)، واعتماد المعامل. وغيرها من المواصفات القياسية العالمية والاجراءات الفنية . مع وضع جدول زمنى وخطه تنفيذية لاعداد المعامل لكى تتمشى مع قواعد ISO/IEG GUIDE 25 and NCSL/ANSI Z540-2 . والنقدم بطلب الحصول على الاعتماد من جهاز اعتماد معترف به دوليا، يعمل بالمشاركة مع المعمل القومى المصرى للاعتماد . وتعمل حاليا الجبهه الامريكية US NIST مع المعمل القومى حيث يصبح مؤهلا للقيام بهذه الخدمات .

#### أولويات خطة العمل المطلوبة من الحكومة المصرية للتوافق مع اتفاقية العوائق الفنية على التجارة لمنظمة التجارة العالمية:

تغطى التوصيات الست المذكورة عاليه متطلبات اتفاقية العوائق الفنية على التجارة الى حد كبير. ومع ذلك، فإن تحديد متطلبات رئيسية معنية لاتفاقية العوائق الفنية على التجارة سوف يخدم فى تركيز صانع القرار على الاهتمامات العاجلة لمنظمة التجارة العالمية. ويمكن تلخيص هذه الأمور بشئ من التفصيل على النحو الآتي:

- يتعين على الدول الأعضاء التأكيد على أن الإجراءات الفنية لم يتم إعدادها، أو انتهاجها، أو تطبيقها ، بقصد خلق عقبات غير ضرورية أمام التجارة الدولية. ولهذا الغرض، ينبغى على الإجراءات الفنية ألا تكون أكثر تعقيدا عن الحد الضرورى لتحقيق الأهداف المشروعة، مع الأخذ فى الحسبان المخاطر التى تنتج من عدم الوفاء بالالتزامات. وتتضمن تلك الأهداف

المشروعة - من ضمن أشياء أخرى - متطلبات الأمن القومي، ومنع ممارسات الخداع، وحماية الصحة البشرية والسلامة والصحة الحيوانية والنباتية، وحماية البيئة. وعند تقييم المخاطر، ينبغي أن تؤخذ العناصر الملائمة في الحسبان، والتي من بينها : المعلومات العلمية والفنية المتاحة، وتكنولوجيا التثمين المرتبطة والاستخدامات النهائية لهذه المنتجات.

- وحيثما تكون الإجراءات الفنية مطلوبة، والمواصفات القياسية الدولية موجودة، أو يكون استكمالها على وشك الحدوث، يجب على الدول الأعضاء استخدامها، أو استخدام الأجزاء المناسبة منها، كأساس لأجرائها الفنية، ما عدا عندما تكون مثل هذه المواصفات القياسية الدولية أو الأجزاء الملائمة منها وسائل غير فعالة أو غير ملائمة لإنجاز الأهداف الشرعية المرغوبة. وعلى سبيل المثال، فقد تمت مواجهة المشاكل المتعلقة بالعوامل المناخية الأساسية، والعوامل الجغرافية والتكنولوجية. وعندئذ يكون تحديث المواصفات القياسية الدولية أمرا ملائما.

وبالنظر تجاه تنسيق (تتاعم) الإجراءات الفنية بأوسع أساس ممكن، ينبغي على الدول الأعضاء أن تؤدي دورها بالكامل، في حدود مواردها، ومن خلال الأجهزة الملائمة، وتقوم بإعداد مواصفات دولية للمنتجات التي يتم اتباعها فعلا أو هناك نية لاتباعها كإجراءات فنية. علاوة على ذلك، فإن القبول أو الاتباع المباشر للمواصفات المقبولة دوليا، متضمنة علامات سلامة المنتجات، يكون أمرا مقبولا كمنهج عمل.

ويجب على الدول الأعضاء إعطاء اعتبار إيجابي لقبول الإجراءات الفنية للدول الأعضاء الأخرى كشيء مكافئ، حتى لو اختلفت هذه الإجراءات عن تلك الخاصة بها، بافتراض أنها تحقق الأهداف المرجوة منها. والتوصية التي تقدمها الدراسة في هذه الصدد، هي أن علامات سلامة المنتجات التي تقبلها الهيئة العامة للرقابة على الصادرات والواردات تكون متسقة مع اتفاقية العوائق الفنية على التجارة.

وحيثما يكون الأمر ملائما، يجب على الدول الأعضاء أن تحدد الإجراءات الفنية المبنية على المتطلبات، وذلك بمعيار الأداء بدلا من خصائص التصميم والنواحي الوصفية. ويحظر وجود القيود الكمية على الواردات، وكافة التدابير التي لها نفس الأثر، دون الأضرار بالشروط التالية، وذلك بين الدول الأعضاء. -

والمواد من المادة (٣٠) الى المادة (٣٤) من اتفاقية العوائق الفنية على التجارة لاتمنع فوض الحظر أو القيود على الواردات أو الصادرات أو البضائع العابرة طالما كانت مبررة على أساس من الأخلاق العامة، والسياسة العسة، والأمن العام، مثل حماية صحة وحياة البشر، والحيوانات والنباتات، وحماية الكنوز القومية ذات القيمة الفنية والتاريخية والمعمارية، أو حماية الملكية الصناعية والتجارية. ويجب ألا تكون هذه القيود أو الحظر بمثابة أدوات للتمييز التحكمي أو القيود المقنعة على التجارة بين الدول الأعضاء.

### نتائج الدراسة ومضمونها للسياسة التجارية:

#### منظمة التجارة العالمية ( اتفاقية العوائق الفنية على التجارة)

إن مصر كدولة موقعة على هذه الاتفاقية، عليها التزامات معينة ينبغي الوفاء بها، بالرغم من أن الاتفاقية لا تطلب ذلك بشكل ملج. و ربما يكون أكثر هذه الالتزامات الفردية أهمية هي مطالبة كل دولة عضو باتباع المواصفات القياسية الدولية كأساس لنظام مواصفاتها الوطنية. و ينبثق عن هذا الأمر، كافة الالتزامات الأخرى تقريبا.

و في ظل اتفاقية العوائق الفنية على التجارة، يجب أن تكون الخصائص المتعلقة بجودة المنتج اختيارية. و تقوم أجهزة الاعتماد الدولية بإصدار شهادة تفيد أن المنتجات تحقق الحد الأدنى

المطلوب من المواصفات. و الهدف من ذلك هو مطابقة جميع المواصفات الوطنية للمواصفات القياسية الدولية من أجل تيسير التدفق الحر للسلع دوليا، و أن يكون لدى الدول الأعضاء معايير للفحص تطابق الممارسات الدولية المقبولة.

و تهدف اتفاقية العوائق الفنية على التجارة لمنظمة التجارة العالمية بشكل أساسي الى تقليل العوائق الفنية على التجارة، و من ثم تخفيض نفقة المعاملات، الأمر الذي ينعكس على تخفيض أسعار المدخلات و المنتجات، و يسهل بشكل عام تحقيق الميزة النسبية المحتملة، وذلك من خلال التجارة.

## خطوات الإصلاح المطلوب تحقيقها من جانب وزارة التجارة و التموين:

- إن الخطوات التي يمكن اتخاذها بسهولة و بشكل مباشر من خلال الهيئة العامة للرقابة على الصادرات و الواردات / وزارة التجارة و التموين هي:
- ١- وقف عمليات فحص و اختبار عناصر الجودة.
  - ٢- أن يقتصر الفحص على الإجراءات الفنية المتعلقة بالسلامة و الصحة و البيئة، و بشكل يطابق المعايير الدولية.
  - ٣- عدم فحص المنتجات التي سبق فحصها بواسطة إحدى الهيئات الحكومية المصرية الأخرى.
  - ٤- اتباع سياسة قبول المنتجات التي سبق فحصها للتأكد من اعتبارات السلامة بواسطة جهاز اعتماد دولي، وذلك دون حاجة الى فحص آخر.
  - ٥- اتباع سياسة قبول المنتجات التي سبق فحصها بواسطة جهاز اعتماد دولي و موافق عليه من جانب الهيئة العامة للرقابة على الصادرات و الواردات.
  - ٦- إنشاء سجل للمنتجات التي يتم استيرادها أو تصديرها بشكل متكرر.

## التعاون المطلوب بين الوزارة المعنية:

هناك أفعال أخرى ينبغي القيام بها على أساس اتفاقي بين الوزارات المعنية. و قد يتطلب الوصول الى مثل هذا الاتفاق، إنشاء جهاز قومي على مستوى عالي لمطابقة المنتجات و حماية المستهلك. و مثل هذه الأفعال الرئيسية تكون مطلوبة لأحداث مطابقة كاملة للإجراءات الفنية و الفحص، و هي تشمل على:

- (١) تنسيق المواصفات القياسية و الإجراءات الفنية مع المعايير الدولية، و يتضمن هذا الأمر نوعا من التنسيق بين وزارة التجارة و التموين (الهيئة العامة للرقابة على الصادرات و الواردات)، و وزارة الصناعة (الهيئة المصرية للتوحيد القياسي)، و وزارة الصحة، و وزارة الزراعة. و توصى الدراسة باتباع منهج الجماعة الأوروبية أو التبنى المباشر للمواصفات القياسية الدولية حيثما يكون ذلك قابلا للتطبيق.
- (٢) مراجعة القوانين و القرارات التي صدرت بقصد حماية المستهلك، و ذلك من خلال المواصفات و الإجراءات بهدف ترشيدها.

(٣) الاعتراف بالنظام البيروقراطي الحالي القائم بوضع و تطبيق الإجراءات الفنية، بهدف تفادي الازدواجية فيما يتعلق بالعينات و الاختبارات، و حتى يمكن تجنب التطبيق غير المنسق للإجراءات، و لتفادي انتشار الإجراءات المتعارضة التي تأتي من وزارات مختلفة.

و لقد أظهرت الدراسة بشكل واضح تماما، أن تنسيق المواصفات، و اتباع أساليب فحص ميسرة مثل شهادات الفحص و الاختبار المسبق، سوف يعالج فقط جزءا من المشكلة المسببة للعوائق الفنية على التجارة. و في النظام المصري، توجد اثنتين من الممارسات الإضافية على درجة عالية في الأهمية هما:

- أ- صدور قرارات تنظم عمليات الاستيراد من جانب عدة وزارات
- ب- وجود نظام محلي لفحص المنتجات يسير موازيا لنظام يتم تطبيقه على الواردات في الموانئ.

و فيما يتعلق بالأخيرة، أظهرت الدراسة بوضوح أنه حتى لو كانت السلعة تتحرك بشكل جيد و بكفاءة خلال عمليات الفحص بالميناء، فقد يتم فحصها فيما بعد بواسطة أجهزة وزارة التجارة و التموين، و ربما وفقا لمواصفات قياسية مختلفة. و تعتبر هذه الممارسة مصدرا للاضطراب في النظام، و تمثل بالتأكيد عائقا فنيا أمام التجارة، و تضيف الى تكلفة استيراد السلع في مصر.

### نظام المطابقة المسبقة و الفحص المسبق:

إن تقرير الدراسة واضح تماما فيما يتعلق بالمزايا الهامة لهذه النظم كبداية للفحص في الموانئ. إلا أن المسؤولين في كل من الهيئة المصرية للتوحيد القياسي، و الهيئة العامة للرقابة على الصادرات و الواردات، و قطاع التجارة قد أوضحوا أن الاعتراف بشهادات المطابقة الدولية و علامات الأمان لا يمكن تطبيقها قبل الوصول الى اتفاقية للاعتراف المتبادل (MRA) من جانب أجهزة الاعتماد الدولية الأخرى. و في المقابل، نجد أن اتفاقية الاعتراف المتبادل (MRA) لا يمكن أن تتحقق قبل استكمال عملية طويلة من جهود التنسيق المتعلقة بالمواصفات القياسية و الإجراءات الفنية و اعتماد المعامل، و قد يستغرق هذا الأمر عدة سنوات.

وتوصى الدراسة بأن تقوم الحكومة المصرية بالاعتراف الفوري من طرف واحد بعلامات الأمان الدولية (شهادات الفحص المسبق) لكافة المنتجات غير الغذائية. فأمان المنتجات يضمه نظام دولي دقيق للفحص، و بالتالى تكون المخاطر عند حددها الأدنى. و يتيح الاعتراف من جانب واحد بهذه العلامات تحقيق توفير عاجل فى نفقات الفحص، ويظهر تقدما نحو الوفاء بالالتزامات تجاه منظمة التجارة العالمية، و لا يمثل تضحية بأى شىء، مثلما هو الحال فى حالة الامتيازات المتبادلة التى تحتاج الى وجود اتفاقية للاعتراف المتبادل.

و بالرغم من أن نظام الفحص المسبق للسلع المصدرة فى الموانى ليس بكفاءة نظام شهادات المطابقة، فإن النظام الأخير يشتمل أيضا على اثنتين من المزايا يتفوق بها على نظام الفحص الراهن. وهنا نلاحظ ما يلى:

أولاً: ان وجود كيان معتمد دوليا يستطيع أن يضمن مرور السلع بالفحص قبل الالتزام بتصديرها الى مصر. ويمكن زيادة طاقة الهيئة العامة للرقابة على الصادرات و الواردات على تغطية الإجراءات الفنية من خلال التعاقد معها.

ثانياً: يمكن تطبيق نظام الفحص المسبق فى مواجهة المواصفات القياسية المصرية الراهنة، ويمكن تطبيق ذلك على المنتجات الغذائية و غير الغذائية.

### المنافع الناجمة عن إصلاح نظام المواصفات القياسية و الإجراءات الفنية:

أن تيسير نظام المواصفات القياسية للسلع، و الفحص و الاختبار من أجل المطابقة، تتمثل منافعه الأولية فى تقليل العوائق على التجارة و ما يلزم ذلك من أثر موجب على الاقتصاد

ككل. و تلعب نفقة المعاملات المنخفضة الخاصة بالاستيراد دور المحفز لكل من الواردات و الصادرات، الأمر الذى ينتج عنه أسعار أقل للمستهلك. بصيغة أخرى، أن العوائق الفنية على التجارة تؤثر سلبيا على الرفاهة و تكبح كلا من الواردات و الصادرات بنفس الطريقة التى تعمل بها التعريفات و الحصص.

إن وجود نظام إجراءات و فحص متطور، سوف يولد منافع أخرى كذلك. فاستخدام علامات الأمان الدولية سوف يقلل مخاطر المستهلك بشكل كبير فى العديد من الحالات. فالاختبار الدقيق لجوانب الأمان فى ظل علامات الأمان الدولية (الفحص المسبق) يكون فى الواقع أشد

صرامة مما يمكن عمله بواسطة الهيئة العامة للرقابة على الصادرات و الواردات فى ميناء الدخول. فعملية فحص المنتجات و أجرائها الحاسمة تتم فى المصانع، الأمر الذى يساعد على المزيد من الاختبارات الدقيقة للأمان.

و أحد المنافع التى تم النظر إليها من خلال عمليات تقييم الإجراءات الفنية، أنها يمكن أن تزيد من قابلية المنتجات المصرية للتسويق فى أسواق التصدير الخارجية. إن وجود المواصفات المنسقة يقود مباشرة الى الاعتراف الدولى بكل من معايير الجودة و الأمان، و بالتالى فهى تعتبر فى حد ذاتها أداة تسويقية. وقد يؤدى ذلك الى الاعتراف الدولى بالعلامة المصرية للجودة و الأمان، وهى الخطوة التالية لتنسيق المواصفات التى تمكن المنتجين المصريين من تصدير منتجاتهم بحرية أكثر، و استغلال اعتراف السوق بعلامة موجودة فعلا.

و فى الختام، من الواضح أن تكلفة إصلاح النظام المصرى يعوضها عبر الزمن، تلك المنافع التى تؤول الى الصناعة المصرية و المستهلك المصرى. و نفقات الرفاهة (إذا كانت هناك) الناجمة عن تيسير الإجراءات يجب أيضا تعويضها بالكامل بالمكاسب من زيادة التجارة.