

Standards Watch

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MAURITIUS STANDARDS BUREAU

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Editor's Message

Dear Readers,

I am pleased to present this inaugural issue of Standards Watch, a new quarterly Magazine of the Mauritius Standards Bureau. The objectives of this publication are to disseminate information on national standardization activities as well as regional and international standards development, but more importantly to create awareness among our stakeholders about the importance and benefits of standards.

I will be stating the obvious by saying that without standards and norms, be it in our individual life, in society in general and in business and industry, success is next to impossible. I am often reminded that Standardization and Success are spelt with the same first letter.

There is, unfortunately, a modest intake of standards by Mauritian firms as compared to their overseas counterparts. Someone once pointed out, that there are presently two species of Mauritian firms namely "*Standards-users*" and "*Standards avoiders*" but eventually only the former will remain as the latter will have become extinct. Standards or rather standardization provide businesses with an important tool to meet many of the challenges of globalization.

The Mauritius Standards Bureau has established a consensus-based process to develop voluntary standards. The procedures used to

formulate and publish Mauritian Standards comply with internationally recognized best practices. The interests of consumers, manufacturers, the government and the community at large are safeguarded while drafting Mauritian Standards.

I wish to inform the readers that a new thrust will be provided to standardization activities in the coming months with the elaboration of a **National Standardization Strategy (NSS)** following a wide consultation with all the stakeholders.

Standards Watch will feature articles on standards, standardization activities, interviews of people involved in standards development, national and international events related to standardization. I hope you will welcome this publication.



B Gunes
Divisional Manager
Standards Development Division
MSB

Breaking News

ISO/IEC 17021:2006 effective from 15 September 2008

ISO/IEC 17021:2006 – *Conformity assessment – Requirements for bodies providing audit and certification of management systems* replaces ISO/IEC Guide 62 and ISO/IEC Guide 66 from the cut-off date of 15 September 2008.

The Mauritius Standards Bureau which provides management systems certification has made the transition to ISO/IEC 17021:2006. The new standard contains principles and requirements that will enhance among others openness, impartiality and competence of certification bodies.

ISO 9001:2008 goes live

The new edition of ISO 9001 will go live before the end of this year. The proposed standard has not introduced additional requirements compared to ISO 9001:2000. It is an update, based on user experience, and introduced clarifications to existing requirements. The compatibility with ISO 14001 for EMS has been enhanced.

Organizations certified to ISO 9001:2000 will not require any specific reassessment to the new edition. Conformity to the new edition can be granted after a routine surveillance audit against the new standard.

Existing certification to ISO 9001:2000 will have a transition period of two years after publication of the new edition. However, those organizations requiring recertification within one year after publication of the new edition will be according to the new edition. New certification will be against the new edition after its publication.

Interview

Khemraj Ramful, Director Mauritius Standards Bureau talks to Standards Watch about Standardization, its evolution and its impact on private and public organizations as well as on individual life. Mr Ramful unveils his plan to give a new impetus to standardization activities and to meet the new challenges such as trade liberalization, ethical and green consumption and sustainable development.

SW - The Mauritius Standards Bureau is over 30 years old now. Its core activity, since its inception, has been standards development. How has this activity evolved during these years and what future changes do you foresee in this area?

K Ramful - Standardization is dynamic and does not take place in a vacuum. It reflects the economic and social policies of a country. Standardization activities as well as the standardization structure in Mauritius has evolved with the industrial and social policies. The first 20 standards developed by MSB covered products such as emulsion paints, starter batteries, PVC water pipes, soap, safety matches, laundry detergent and toothpaste. This was in line with the import substitution industrial strategy. The next 20 or so standards developed are on men's dress shirts, embroidery threads, knitted outerwear, canned processed peas, canned tomato concentrates, alcohol, jams and fertilizers. This

reflects the export-oriented industrial policy and the agricultural diversification strategy of the government.

“Standardization activities as well as the standardization structure in Mauritius has evolved with the industrial and social policies”

Likewise, when the Mauritian government became a signatory to the World Trade Organization in 1995 which liberalized trade, the Mauritius Standards Bureau positioned itself for international standardization. In the same year, that is, 1995, the Bureau became a full member of the International Organization for Standardization.

“In 1995, Mauritian government became a signatory to the WTO and the Bureau, a full member of ISO”

SW - Standards intake is very low among Mauritian firms. What is the strategy of the organization for the implementation of standards in Industry and Business?

K. Ramful - Strategic Standardization is a driver for competitiveness. Corporate strategies should recognize the importance of standards and its spin-off activities such as testing, certification and inspection. The total enterprise should become standards conscious and top management should keep a strategic watch on the standards environment in order to sharpen the competitiveness of the organization. It will be only then that standards intake in

enterprises will witness a quantum jump. MSB is committed and compelled to bring this new standards culture in the private and public sector through massive Information, Education and Communication campaigns.

“MSB is committed and compelled to bring this new standards culture in the private and public sector through massive Information, Education and Communication campaigns.”

SW - You do surely agree that regional and international standardization activities have assumed critical importance with the advent of the World Trade Organization and the emergence of regional blocks. What actions have been taken to enhance the visibility of MSB in regional and international activities?

K Ramful - MSB participates actively in various international and regional fora such as the International Organization for Standardization (ISO), the African Organization for Standardization (ARSO), the SADC SQAM (Standards, Quality Assurance, Accreditation and Metrology), the COMESA SQMT (Standards, Quality, Metrology and Testing) and the IOC-ARC (African Regional Co-operation) as well as in other related events. But visibility is not enough. Advocacy is also important. MSB is stepping up its efforts to bring the voice of its stakeholders and the Mauritian interests in these fora. In this context, National Mirror

Committees have been set up to follow and influence the works of ISO Technical Committees and Regional Technical Committees. Several workshops have been organized to obtain the viewpoints of our stakeholders on sensitive standards. I have in mind standards such as ISO 9001:2008, ISO 26000 on social responsibility, OHSAS 18001 on OHS management system and the COMESA dairy and dairy products standards.

“MSB is stepping up its efforts to bring the voice of its stakeholders and the Mauritian interests in these fora”

We have a tiny but “tenor” voice and the challenge is to make ourselves heard.

sw - A National Standardization Strategy is being chalked out. What are the broad outlines of this strategy?

K. Ramful - Globalization is influencing the economic and social development in Mauritius. To-day trade and business cannot be carried out without taking into account international trends. Ethical and green consumption, ecological concerns, sustainable development and like issues are looming high on the horizon. All these factors will have an incidence on the emerging standards environment. The National Standardization Strategy will take on board all these concerns. This will be the top level of the strategy.

There is also an urgent need for a complete rethink of the structure and processes for standards development. We have been developing standards with the same tools and the same methodology since 1975. The NSS will come forward with a new way of doing things.

“The National Standardization Strategy will take on board concerns related to ethical and green consumption, ecology, sustainable development and like issues, review the standards development process and come forward with a new way of doing things”

In addition, the NSS will provide the necessary underpinnings to the new poles of investment in Mauritius. These are the broad outlines of the NSS. However, an in-depth analysis is required to develop the strategy and a wide consultation among the stakeholders will be conducted before finalizing the document.



Mr. K. Ramful
Director
MSB

MAURITIUS STANDARDS BUREAU

The Mauritius Standards Bureau was established as a division of the Ministry of Commerce and Industry by the Standards Act of 1975.

It is now a body corporate governed by the Mauritius Standards Bureau Act 1993, which gives the Bureau greater flexibility and autonomy, and caters for its vital role in the industrialization of Mauritius.

VISION

To be the Centre of excellence in Standards, Metrology and Conformity Assessment Services.

MISSION

To promote and provide market relevant Standards, Metrology and internationally recognized Conformity Assessment Services for the Business Community, Government and Society at large.

Standards News

Bromate in bottled drinking water

Bromate content has been set at a maximum permissible limit of 10 ppb (10 µg/L) in the amended Mauritian Standard for bottled drinking water, MS 84. Bromate may be formed during the disinfection process of ozonation of raw waters containing bromide ions. It may also be present in chlorinated waters through the use of hypochlorite for disinfection.

Bromate content set at 10 ppb max in MS 84, bottled drinking water

Bromate has been named to be a potential carcinogen by several international research agencies but this has been challenged by various other quarters, particularly by concerned parties of the water bottling industry.

The use of bottled drinking water is a new social phenomenon in Mauritius and other developing countries. The high consumption of bottled drinking water containing high levels of bromate during a long span of time may be a risk factor on human health although hard scientific evidence is not available to support bromate carcinogenicity.

The Mauritius Standards Bureau has consequently adopted the precautionary principle and has introduced a new requirement, bromate content in MS 84. The

Bureau has aligned itself with the World Health Organization that has set down a guideline value of 10µg/L for bromate in drinking water in its Third Edition of the Guidelines for Drinking Water Quality, WHO 2006.



Source: FreeDigitalPhotos.net

MSB has adopted a precautionary measure and aligned with WHO requirements for bromate (10 ppb) in bottled drinking water

The European Commission Directive 2003/40/EC of 16 May 2003, has established maximum limits for residues; the bromate content of ozone – enriched air treated natural mineral waters and spring waters is 3 µg/L.

Trans fats –

Towards zero tolerance through voluntary trans fat labeling and trans fat free claim

Trans fatty acids commonly known as trans fats have come under the scrutiny of consumer organizations and health authorities. Codex defines trans fatty acids as “all the geometrical isomers of monounsaturated and

polyunsaturated fatty acids having non-conjugated interrupted by at least one methylene group, carbon-carbon double bonds in the trans configuration”.

Setting aside the scientific and technical terms for trans fat and in plain jargon trans fat is a high health risk fatty acids. However, using trans fat in foods is believed to enhance the taste and extend the shelf life.

The World Health Organization has recommended, as a first step, the phasing out of trans fat through voluntary trans fat labeling and trans fat free claim.

The Mauritius Standards Bureau has adhered to the principle of making voluntary trans fat labeling and trans fat free claim a requirement for standards on fats, oils and related products. In the absence of guidelines from Codex for the labeling of trans fat, the national standards body has adopted the listing of trans fat content on the label with a maximum permissible limit.

“The Bureau has made voluntary trans fat labeling and trans fat free claim a requirement for standards on fats, oils and related products”

Since January 2006, the US Food and Drug Administration has required that the food labels also includes the amount of trans-fatty acids. Foods may be labeled as containing ‘zero trans-fat’ if they contain less than 0.5 g in a serving. Other countries are more strict and

have applied a limit of 0.3 g per serving as nutrition labeling.

The Mauritian Standards Bureau will rest guided by Codex and guidelines from recognized standards bodies on trans fat labeling. The new Mauritian Standard MS 153 on fat spreads, presently a draft, makes it a requirement to declare the trans fat on the label

ISO 26000 – Guidance on social responsibility



Source: www.iso.org

Social responsibility is gaining currency in new management models and theories. Increasingly, it is recognized that organizations do not only have an economic mandate, but also have a socially responsible behavior. Management Guru, Peter Drucker, asserted, as far back as 1954, that the enterprise is an organ of society and its actions have a decisive impact on the social scene. It is thus important for management to realize that it must consider the impact of every business policy and business actions upon society. However, economists like Milton Friedman contended that if funds were allocated by enterprises to

social projects, the efficiency of the market would be disturbed and resources would be misallocated.

“ management must consider the impact of every business policy and business actions upon society”

In spite of the debate on the issue, the International Organization for Standardization has decided to develop a standard, ISO 26000 on social responsibility.. The standard will provide guidance on principles and practices of social responsibility and its integration and implementation within an organization. The ISO Strategic Advisory Group on social responsibility defines it, as an “approach for organizations to address economic, social and environmental issues”.




“social responsibility defined as an approach for organizations to address economic, social and environmental issues”

The Mauritius Standards Bureau has set up a Mirror Committee, comprising representatives from various sectors to review the Working Document on Guidance on Social Responsibility and to submit comments thereupon to the Drafting Task Force. This is an opportunity to present the views of a Small Island Developing State on the subject.

MS 1 National Flag

MSB has embarked on a project to develop a specification for the National Flag covering the essential requirements including colours and sizes. The Pantone Matching System (PMS) has been adopted to define the colours of the National Flag. The PMS is a standardized colour reproduction system and is widely used to describe the colours of flags. Many countries such as India, Republic of South Africa and Canada have used the PMS as well as other colour models to document the colours of their flags.

The National Flag consists of four horizontal stripes of equal width coloured from top to bottom as follows:

	Colour	Pantone Matching System
	Red	185 C
	Blue	295 C
	Yellow	116 C
	Green	356 C

The flag size is in the ratio of 2:3

Using the specific colours and right sizes of the National Flag is a sign of respect to the country's highest symbol of sovereignty and solidarity.

The Bureau has allocated MS 1 (the first of its series of Mauritian Standards) to show respect and reverence to the National Flag. It is worth mentioning that National Flag was recorded at the College of Arms, London in January 1968 and was first unfurled on 12 March 1968.

Food Safety Standards - “Farm-to-Fork” concept

Many countries have adopted the “Farm-to-Fork” principle to ensure food safety. Simply put, the “Farm-to-Fork” principle advocates integrated and comprehensive controls at every stage of the food chain. Various stakeholders are involved in monitoring safety and quality of foods and feeds within the food chain including primary producers, food business operators, the government, the food regulators, certification bodies and testing houses. The ability to demonstrate adequate national food controls established at the production, processing and marketing stages is also essential to remain competitive in the world food market.

“the ‘Farm-to-Fork’ principle advocates integrated and comprehensive controls at every stage of the food chain”

Food laws are major instruments to control the safety and quality of foods and feeds. However, besides food legislation, countries also require internationally accepted food safety standards such as those of Codex Alimentarius Commission or ISO (International Organization for Standardization). International Standards and Guidelines may prove useful tools for ensuring compliance with requirements specified by law and regulation. Furthermore, use of international

standards may assist countries to meet the WTO TBT and SPS Agreement obligations.

“International Standards provide useful tools for ensuring compliance with regulations and assist countries to meet the WTO TBT and SPS Agreement obligations”

Standards development in the area of food has witnessed a shift from detailed, compositional, commodity-based requirements known as “vertical” standards to “horizontal” food safety standards that lay emphasis on risk and hazard analysis along the food chain and that can apply to almost all foods and food products

“food standards have shifted from detailed, compositional, commodity-based requirements known as “vertical” standards to “horizontal” that lay emphasis on traceability, safety, risk and hazard analysis along the food chain”

MSB has adopted several ISO deliverables, Codex documents, as well as foreign standards to support the “Farm-to-Fork” concept. These normative documents include, among others:



Source: FreeDigitalPhotos.net

MS 133:2003

The implementation and management of a Hazard Analysis and Critical Control Point System

MS ISO 22000:2005

Food Safety management systems – Requirements for any organization in the food chain

MS ISO /TS 22003:2007

Food Safety management systems – Requirements for bodies providing audit and certification of food safety management systems

MS ISO 22005:2007

Traceability in the feed and food chain – General principles and basic requirements for system design and implementation

MS ISO 22006:2008

Guidelines on the application of ISO 9001:2000 for crop production

MS ISO 15161:2001

Guidelines on the application of ISO 9001:2000 for the food and drink industry

The first two standards are certification standards for food safety management systems and are being implemented by Mauritian firms.

MS 133:2003

HACCP Management System sets down the requirements for a Food Safety Management System (FSMS) including the HACCP requirements and principles from the Codex Alimentarius as well as the "General Principles of Food Hygiene". HACCP Management System is for organizations wishing to implement a basic certifiable management systems with the objective to PERM (Prevent, Eliminate, Reduce or Mitigate) hazards. The HACCP-based approach is flexible and can be adopted depending on the nature of risks inherent in the food and feed business. HACCP Management System is the stepping stone towards ISO 22000:2005.

ISO 22000:2005 is often equated to ISO 9001:2000 + HACCP. However, the benefits to be derived from ISO 22000:2005 is more than the sum of gains from ISO 9001:2000 and HACCP management system.

"HACCP Management System is the stepping stone towards ISO 22000"

MS ISO/TS 22003 is primarily intended to be used for the accreditation of certification bodies which seek to recognize as being competent to certify a food safety

management system more particularly ISO 22000. ISO/TS 22003 is based on ISO 17021:2006, *Conformity assessment – Requirements for bodies providing audit and certification of management systems* and covers topics such as resource requirements, competence of management and personnel including auditors and those involved in decision related to certification. The Technical Specification will be upgraded to an international standard in 2009 and will become a requirement for accreditation of certification assessment bodies.

Trading partners of Mauritius have set down stringent requirements for the entry of food and foodstuffs in their markets. The European Union has adopted a hygiene package whose aim is to create a single hygiene regime covering all types of food, food operators in all sectors together with effective instruments to manage food safety throughout the food chain. There are several Regulations and Directives of the European Parliament and Council which may impact on Mauritian food exporters, notably Regulation EC/No. 852/2004 on the hygiene of foodstuffs effective as from 1 January 2006. This Regulation lays, among other things, guidelines on the application of HACCP principles by food business operators.

Regulations have been made by the Mauritian Government to comply with the requirements established by the European

Commission, for the export of fish and fish products, namely the Fisheries and Marine Resources (Export of Fish and Fish Products) Regulations (No.2) 2006. Apart from basic Mauritian Legislations, food business operators are likely to benefit from the use of standards formulated by the Mauritius Standards Bureau in meeting the obligations imposed by our trading partners.

"Several Regulations and Directives of the European Parliament and Council which may impact on Mauritian food exporters, notably Regulation EC/No. 852/2004 on the hygiene of foodstuffs effective as from 1 January 2006."

The Mauritius Standards Bureau is keeping a strategic watch on the works undertaken in the food sector by Technical Committees of ISO, and the Codex Alimentarius Commission and will adopt or adapt relevant standards as and when required.

Dossier **Maurice – Ile Durable** **and Standardization**

Part 1: Energy

Economic growth and development have been high on the economic agenda of governments worldwide since a long time. However, policy makers and economists have realized that GDP growth should not ignore environmental and social concerns. The word “eco-development” was coined as far back in 1971 by Professor Ignacy Sachs and others to reconcile the logic of economic production with social and environmental welfare. In 1984, the United Nations created the World Commission on Environment and Development, and its Director Gro Harlem Brundtland (who later became the Prime Minister of Norway) published the famous Brundtland Report which put forward the concept of sustainable development (développement durable in French). This is a mode of development that meets the needs of the present generation without compromising the ability of future generation to meet their own needs.

Sustainable development is a mode of development that meets the needs of the present generation without compromising the ability of future generation to meet their own needs.

The Brundtland Report highlighted global warming and the depletion of the ozone layer as two major environmental issues facing the world. Since then, a host of issues such as climatic changes, poverty, inequality, environmental disasters, wastage of resources and health hazards among others have come within the framework of sustainable development.

The Protocol of Montreal in August 1987, the Earth Summit in Rio de Janeiro in June 1992, The Kyoto Conference in December 1997, the Earth summit in Johannesburg in August/September 2002 and the International Meeting on Sustainable Development of Small Island Developing States (SIDS) in Mauritius in 2005 and the Doha Round have consolidated the concept of sustainable development.

Sustainable development is closely linked with the challenges of climate change. A world economy fuelled by fossil energy has put the planet at risk. The global temperature planet Earth has increased by 0.6 °C and is expected to rise by 5 °C if mitigating measures are not taken. The Green House Gas (GHG) emissions (carbon dioxide, methane, nitrous oxide) have to be curbed as a matter of urgency and emergency.

The ecological disasters caused by global warming cannot be underestimated. The small-island developing states will be highly vulnerable to climate changes.

Governments worldwide have embarked to reduce global warming upon a vast programme to control GHG emission including target-setting under the Kyoto Protocol and shift to a low-carbon economy.

“Sustainable development is closely linked with the challenges of climate change. A world economy fuelled by fossil energy has put the planet at risk”

Mauritius has a low carbon footprint. Still, GHG emissions curb is high on the strategic agenda of the government. Public policies have been formulated with the dual objectives of reducing CO₂ emissions and cutting energy costs while at the same time protecting the environment. The carbon mitigation policies cover low-carbon electricity generation, use of renewable energy, reducing emissions from vehicles, efficient energy use in buildings, more particularly public buildings, and energy savings in the residential sector. The Maurice Ile Durable Fund which has been recently established provides strong incentives for practices that drive down GHG emissions and that enhance energy efficiency.

“The Maurice Ile Durable Fund provides strong incentives for practices that drive down GHG emissions and enhance energy efficiency”.

However, these policies need to be underpinned by a set of measures which include setting standards, and sensitizing the consumers for informed purchasing decisions. The Mauritius Standards Bureau is already on a fast-track programme to provide standardization solutions for enhanced energy efficiency.

Solar energy is renewable, zero carbon energy source and the Mauritian climate provides sufficient irradiation to make the use of this type of energy viable. The use of solar water heaters to provide hot water is being encouraged by the Mauritian Government. However, it is crucial that the solar water heaters sold on the domestic market are durable, reliable and energy efficient. MSB has already established a Mauritian Standard, MS 96: 2008, *Solar water heaters – Design and construction* which is based on the Australian standard. The standard specifies requirements for the design and construction of solar hot water supply systems and/or components for household premises and for commercial and industrial installations comparable with household installations intended to deliver potable water. It covers systems with a volumetric storage capacity of 700 L.

“Energy labeling standards for household electrical products will provide clear information to consumers about the energy consumption and performance of electrical appliances”

Personal and public transportation is one of the largest consumers of fuel. Setting the right standards and regulation in this sector will provide a double dividend, that of reducing our fuel import bills and of curtailing GHG emissions; with the advent of new vehicle technology, cleaner cars and smokeless heavy-duty vehicles can be envisaged on our road. The Government has already provided financial incentives for speedy renewal of the automobile fleet. Applying the relevant standards and regulations in transport sector will bring the behavioural change among transport operators and users.

The Mauritius Standards Bureau is planning to develop fuel efficiency standards and vehicle emission standards that will reduce atmospheric pollutants and improve fleet efficiently.

“MSB will adopt ISO 14064 and 14065 which provide a framework for GHG emission trading systems”

Decarbonization of transport fuels may also be envisaged in Mauritius. The use of ethanol gasoline blend (E 5 or E 10) and compressed natural gas (CNG) will reduce our dependence on fossil fuels considerably. A pilot project using 5 % ethanol-gasoline blend has proved to be successful. Standardization projects on gasoline-ethanol blend has already started.

Additionally there is a huge potential for energy savings in the residential sector. The use of energy-efficient electrical appliances and lighting bulbs is likely to drive down electricity consumption. The Bureau will come up with energy labeling standards for household electrical products which will provide clear information to consumers about the energy consumption and performance of electrical appliances. A standard on compact fluorescent lamps and best practices for their disposal at their end of life is also in the pipeline. The Mauritius Standards Bureau will support the government in its policy to curb GHG emissions by providing market relevant standards based on international best practices.

Credible accounting of GHG emissions has become very important to measure a country's compliance under Kyoto Protocol. MSB will adopt international standards on greenhouse gases such as ISO 14064:2006 and ISO 14065:2007 which will support GHG reduction and provide a framework for emissions trading. ISO 14064 provides a set of requirements and guidance for organizations to compile their GHG inventories, quantify and report their GHG emission reduction or removal projects and have these GHG accounts validated or verify independently. ISO 14065 support an accreditation system for independent validators or verifiers of GHG accounting and verification.

Standardization works that will be undertaken by MSB under Maurice-Ile Durable are summarized below:

A Alternative to fossil fuels

- Standards on biofuels
- Standards on gasoline – ethanol blend

B Personal and public transportation

- Fuel-efficiency standards
- Vehicle emission standards for light and heavy duty vehicles

C Residential

- Energy labeling standards for household electrical products
- Standards on compact fluorescent lamps and best practices for their disposal at their end of life

D Public buildings and enterprises

- Building standards for enhanced energy savings

E Climate change

- ISO 14064:2006 (three parts)
- ISO 14065:2007

Standards and Regulations - The Mauritian Model

Mauritian Standards (MS) are generally voluntary in nature. They may be used by firms to demonstrate that their products/processes comply with all the requirements of the relevant-Mauritian Standards under a voluntary product certification scheme known as MAURICERT operated by the Mauritius Standards Bureau (MSB). To-date, 26 firms have been certified under this Product Certification Scheme.

Organizations may also implement management systems standards under a voluntary registration schemes run by certification bodies. There are six registrars in Mauritius including the Mauritius Standards Bureau and about 525 certificates of registration to ISO 9001, HACCP, ISO 22000, ISO 14001, OHSAS and ISO 13485 have been issued.

There is a growing trend in Mauritius to reference standards, mostly adopted or adapted international standards in relevant legislations to regulate sensitive products that may affect public health and safety. Generally, the standards are cited directly in the legal text. Some regulations which have been recently passed incorporate standards in a Schedule to Regulations. Under this methodology, the national standards provide the technical requirements for the products while the administrative provisions

including conformity assessment procedures are detailed in the technical regulations. A list of regulations for the control of goods through standards IS given below:

“There is a growing trend in Mauritius to reference standards in relevant legislation. Under this methodology, the national standards provide the technical requirements for the products while the administrative provisions including conformity assessment procedures are detailed in the technical regulations.”

Steel Bars and Steel Wires (Mauritian Standard Specifications) Regulations 1988 for the control of carbon steel bars for the reinforcement of concrete (MS 10) and steel wire for the reinforcement of a concrete (MS 34) made under the Fair Trading Act.

The Bread (Control of Manufacture and Sale) Regulations 1988 for bread (MS 37) under the Supplies Control Act.

The Hot Dip Galvanized Articles (Mauritian Standard Specifications) Regulations 1989 for hot dip galvanized articles and hot dip galvanizing process (MS ISO 1461) under the Fair Trading Act.

The Prepackaged Food Regulations 1989, for labeling of prepackaged foods (MS 30)

The Toys (Safety) Regulations 1994 for the safety of toys according to MS 111 Part 2, Part 3, Part 4, Part 5 and EN 71 series of standards.

The Consumer Protection (Control of Imports/Amendment No. 2) Regulations 2006 for the control of pocket lighters, gas fuelled and refillable according to ISO 9994 (adopted as Mauritian Standard) under the Consumer Protection (Price and Supplies Control) Act.

The Consumer Protection (Control of Imports/Amendment No.2) Regulations 2006 for the control of automatic circuit breaker with residual current devices, residual current switches according to BS EN 61009, IEC 61008 or IEC 61009 (adopted as Mauritian Standards).

The Plastic and Polyethylene Pipes and Fittings (Mauritian Standard Specifications) Regulations 2007 to control plastic and polyethylene pipes and fittings in accordance with MS ISO 3633, MS ISO 4435, MS ISO 4427, MS ISO 14236.

There are products such as *electric cables, PVC insulated, non-armoured cables for voltages up to and including 450/750 V for electric power, lighting and internal wiring (MS 17), PVC-insulated cables for electricity supply (MS 101) and electric cables – flexible cords rated up to 300/500 V for use with appliances and equipment intended for domestic, office and similar environment (MS 113)* which are regulated under Regulations made under the Supplies Control Act.

Products such as electric water heaters with bare elements and accessories thereof, tubes and hoses for connecting liquefied petroleum gases (LPG) Cylinders to domestic gas appliances, motor-cyclists helmets, fire-crackers and fire-works are also controlled commodities under various regulations with a general proviso that the goods should comply with standards of the country of origin or other applicable standards.

There are also several Ministries and Regulatory bodies which have adopted the concept of standardization and promulgated standards in their regulations without explicitly referring to specific standards. For instance, the Occupational Safety and Health Act 2005 (Section 56) provides to that steam boilers “shall conform to the specifications of the Mauritius Standards Bureau, if any”.

It is worth mentioning here that there are still a number of regulations in Mauritius with detailed technical specifications incorporated in the schedules.

Referencing standards in the regulations provides a clear and transparent mechanism to Mauritian regulators in complying with the WTO TBT obligations, specifically section 2.4. An extract of section 2.4 is reproduced below:

“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...”

The methodology adopted by Mauritian regulators also delineates the roles and responsibilities of the standards body, the regulatory bodies and the conformity assessment bodies.

This is, in fact, the right approach to create a modern Technical Regulatory Framework Model with the formulation of standards and technical specifications resting on the national standards body, the testing, inspection and certification of products/processes being carried out by conformity assessment bodies and the administrative procedures being applied by the regulating bodies.

“Technical Regulatory Framework Model – the formulation of standards and technical specifications by the NSB, the testing, inspection and certification of products/processes carried out by conformity assessment bodies and the administrative procedures being applied by the regulatory bodies”.

Standards may be made compulsory as well under the Mauritius Standards Bureau Act 1993 (as amended). The declaration of a compulsory standard under section (26) of the said Act requires a public enquiry process. No standard has been made compulsory in Mauritius under the provisions of the Mauritius Standards Act 1993.

Critical Analysis

ISO 9001:2008 – The Butterfly Effect ?

The new version of ISO 9001 is set for release before the end of this year. Minor changes have been brought without modifying significantly the requirements of the standard. However, it is often said that small changes sometimes have big impacts and that the flapping of a butterfly's wings in one part of the world can create a storm in another part – *The Butterfly Effect of the Theory of Chaos*.

ISO 9001 - based management model is heavily influenced by the Systems Theory. The organization is viewed as a system with various sub-systems and processes that are closely related and interlinked. The sub-systems and processes can be managed individually to produce outputs. The final output of the organization is the combined outputs of the sub-systems and processes. The systems approach advocates that the whole can be divided into parts.

Basically ISO 9001 is a systemic and mechanistic model as opposed to the holistic and organic model proposed by another group of thinkers.

The new version of ISO 9001 remains a systemic and process-based model. However, there is a fundamental change in the process-based approach. The change can be considered as minor or significant depending upon the

interpretation given by those who implement the management system as well as the auditors.

“ISO 9001:2008 remains a systemic and process-based model. However, there is a fundamental change in the process-based approach”.

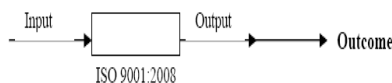
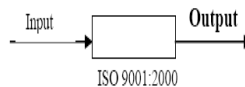
The relevant sub-clause of new version is reproduced below as well as that of the old version to highlight the change.

ISO 9001:2000 – Introduction 0.2 – Paragraph 3

“The application of a system of processes within an organization, together with the identification and interaction of these processes, and their management, can be referred to as the “process approach”

ISO 9001:2008 – Introduction 0.2 – Paragraph 3

The application of a system of processes within an organization, together with the identification and interaction of these processes, and their management to produce the desired outcome, can be referred to as the “process approach”.



Simply put, the process approach undergoes a change and shifts

from an output-based model to an outcome-based model. It cannot be denied that there is a difference between the two concepts.

Output relates to what is produced but the concept of outcome encompasses a wide range of terms such as the effects, the impacts, benefits and value.

The outcome-based process focuses on the benefits or value created by the outputs and also the continual improvement of these benefits or value. The unit of analysis thus moves a step further: it is not sufficient to transform the inputs into outputs but it is also important to consider the effects, benefits and value of these outputs.

“the process approach undergoes a change and shifts from an output-based model to an outcome-based model”

It becomes imperative to analyse the total environment (business ecology) to add benefits or value. The outcome-based approach emphasizes a pull-strategy to improve usage as opposed to the push-strategy of the conventional output-oriented framework.

So, the final question is – Is there a difference between the output-based process and the outcome-based process? The debate is on !

It is worth noting here that the private sector in Mauritius is heavily oriented to the outcome-based principle and the new ISO 9001 standard will prove very useful to firms in that sector.

It is also important here to point out that public sector reforms as well as the New Public Management (NPM) being introduced in Mauritius emphasize the outcome-based approach. Recently, the Finance and Audit (Amendment) Act 2008 has set down the framework for a Programme-Based Budgeting in the public sector with the terms outcome, output and programme clearly defined in Section (3) of the said Act:

“Outcome” means the likely or achieved short-term and medium-term effects of an activity’s or intervention’s outputs,

“Outputs” means the produce goods and services resulting from the carrying out of an activity,

“Programme” means a group of activities or interventions intended to contribute to a common set of outcomes, specific objectives and outputs that are verifiable, consisting of a defined target and a given budget including staffing and other necessary resources.

“ the private sector in Mauritius is oriented to the outcome-based principle; the public sector reforms as well as the New Public Management (NPM) being introduced emphasize the outcome-based approach.”

There is no doubt that organizations in the public sector will increasingly have to consider outcomes while implementing the Programme-Based Budgeting. The new version of ISO 9001 will be an

important tool to manage the programmes in the public sector.

In the next issue of “Standard Watch”, a critical analysis of the changes brought to “Training” in ISO 9001:2008 will be undertaken and an attempt will be made to consider as to whether these changes are likely to create a learning organization.

Mini Reportage:

ISO 9001 Certification in the education sector – The standard that differentiates

The Mauritius Standards Bureau has recently certified, four educational institutions to ISO 9001:2000 namely, Hindu Girls’ College, Sodnac State Secondary School (SSS), Universal College and Bon Accueil Government School

The Standards Watch team carried out a mini-reportage to obtain the views and opinions of the Rectors, the teaching staff and the students of these institutions on ISO 9001 in general and, in particular, its impact on their organizations.

Tucked in the town of Curepipe, the Hindu Girls’ College has the reputation of being an early adopter of new practices in the educational sector. The college has actively participated in Civic Action Team (CAT) projects and other extra-curricular activities related to improving quality and enhancing productivity.

The Deputy Rector and the Quality Management Representative of this prestigious college, Mrs A Gungadin emphasized that

“the quest for ISO 9001 certification is framed by the Government’s vision of A World Class Quality Education believing firmly that the route to Quality Education can be achieved by aiming at Quality and Excellence in Education.”

Speaking about the reasons for implementing ISO 9001 at Hindu Girls’ College, she said

“As a forward-looking institution where the quest for quality improvement was our driving force and a number of good practices were already in place the implementation and award of ISO 9001 – 2000 was another milestone which further galvanized the quality culture at the Institution. It has been a source of great motivation and resilience to the entire Hindu Girls’ college family to strive for a global recognition of our devotion and commitment in the noble venture of providing a – World Class Quality Education.”

“ the implementation and award of ISO 9001:2000 has further galvanized the quality culture at the Institution, a source of great motivation, resilience and commitment in the noble venture of providing a World Class Quality Education.”

The staff and students of Sodnac State Secondary School were doubly happy as their college has obtained the ISO 9001 certification and has also bagged the 'Project Citizen Mauritius

Mr.S Mohitram, Education officer, as well as the quality Management representative, pointed out that *Sodnac SSS is the first State Secondary school in Zone 4 to be certified ISO 9001.*

He added

"I feel that ISO 9001 will provide the desired breakthrough in creating the Third Generation (3 G) culture among our youth. This culture includes among others Responsibility, Respect and Relationship without ignoring the traditional Reading, Writing and Arithmetic"



M Y Foondun
Divisional Manager
Quality Assurance Division
MSB

Y Foondun, Divisional Manager, who is in charge of the Quality Assurance Division at MSB views the implementation of ISO 9001 in the education sector with much optimism. According to him,

"The education sector will no doubt benefit from doing the right things

right. MSB has already certified three secondary colleges and one primary school. I am eagerly waiting for others to join this select club of ISO 9001 certified educational institutions."

"The education sector will no doubt benefit from doing the right things right"

He admitted *"I will be much pleased if pre-primary schools join the bandwagon as well".*

On a more serious tone, he pointed out "ISO 9001:2000 registration in schools implies that the requirements and expectation of parents and students are being met and that the quality of education is being enhanced through continuous monitoring of students by the teaching staff and the management level".

He added *"The Guidelines for the application of ISO 9001:2000 in Education – IWA 2:2007 is an important tool for those who wish to implement ISO 9001 in the education sector".*

"ISO 9001:2000 registration in schools implies that the requirements and expectation of parents and students are being met, the quality of education is being enhanced through continuous monitoring of students by the teaching staff and the management level".

International Events

1st ISO GENERAL ASSEMBLY & RELATED ISO MEETINGS
(12 – 17 October 2008)

The International Organization for Standardization will hold its 31st General Assembly in Dubai, United Arab Emirates, from 12 to 17 October 2008. The event is hosted by the Emirates Authority for Standardization and Metrology (ESMA). During the same period the meetings of ISO Council, Technical Management Board (TMB) and Committee on Developing Country Matters (DEVCO) will be held. Key events, among others, that will mark the ISO GA and related ISO meetings is an Open Session on **"BUILDING FOR SUSTAINABLE FUTURE"** and the **ISO STRATEGIC PLAN 2011 – 2015**. At the last meeting of ISO GA, the Open Session was on **"INTERNATIONAL STANDARDS AND PUBLIC POLICIES"** while emphasis was put on international standardization in support of education in various working sessions.

30th COPOLCO MEETING
28 – 29 May 2008

The Committee on Consumer Policy (COPOLCO) of the International Organization for Standardization held its annual meeting on 28 – 29 May 2008, in Seoul, Korea. COPOLCO also marked its thirtieth anniversary on that occasion. A workshop on **"Standards for a Sustainable World: How can Consumers Influence a Sustainable Energy Future?"** was held during the meeting of COPOLCO. At that meeting COPOLCO indicated its support for a new work item proposed by Consumers International on guidelines for the assessment and improvement of energy services to users.

F E E D B A C K

The Editorial Team of **STANDARDS WATCH** will be pleased to welcome your comments, suggestions and ideas about any aspect of this publication

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