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# THE ARSO CERTIFICATION SYSTEM

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## (ARSO-CERT)

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Report and Technical Papers of the Workshop held  
in Nairobi, Kenya, 8-13 July, 1991



*The ARSO Mark for quality and reliability*



**African Regional Organization for Standardization (ARSO)**

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**PART ONE:**

**REPORT OF THE WORKSHOP ON THE  
ARSO CERTIFICATION SYSTEM (ARSO-CERT)**

## INTRODUCTION

### **Background and Purpose**

Certification of products, service, laboratories, quality systems, etc. is not widely practised in Africa. Its principles and benefits are also not well known by a majority of producers and consumers in Africa.

Certification of a product provides adequate confidence that the product is produced in conformity with a specified standard. Thus, certification is a very effective tool for introducing and maintaining a quality system in a company thereby, promoting productivity.

It is the realization of the above fact that prompted the Lagos Plan of Action for the Economic Development of Africa (LPA) in 1980, to entrust ARSO with the task of operating a regional certification system with a view to certifying and promoting the quality of African products.

Within the decade 1980-1990, ARSO took a number of steps in order to realize this mandate. These included:

- (i) Organizing training workshops in quality control and certification;
- (ii) Conducting expert studies on national, reciprocal, multinational and regional certification;
- (iii) Developing the modality and methodology for the establishment and operation of a regional certification system, that is, the ARSO Certification System (ARSO-CERT);
- (iv) Convening an Expert Group Meeting on Certification which reviewed and adopted rules and procedures which constitute the Constitution, Rules and the Guide of ARSO-CERT;
- (v) Final approval of the above rules and procedures of ARSO-CERT by the ARSO Council in November 1990 in Nairobi, Kenya.

ARSO-CERT as presently conceived, is meant to cater for certification of products conforming to African Regional Standards (ARS) or technically equivalent national standards of member States. The stage is now set for the operationalization of the system. Member States have an important and major role to play through the assessment of applicant producers in their respective countries and elsewhere for the award of the ARSO-CERT mark. Uniformity in the application of the rules and procedures of ARSO-CERT in member States is very important. The Constitution of ARSO-CERT therefore, provides for assessment and approval of the certification system and facilities of the National Standards Body (NSB) of a member State before it could participate in the activities of ARSO-CERT. Coupled to this, are the requirements on personnel. Certification staff of the respective NSBs of member States need to be familiar with the documentations and regulations of ARSO-CERT. Training is required in order to accomplish this task.

It is against this background that ARSO organized this workshop on the ARSO Certification System (ARSO-CERT). The workshop brought together senior certification practitioners from member States who discussed and exchanged ideas on certification generally and ARSO-CERT in particular. The basic legal documents of

ARSO-CERT were thoroughly explained and the mechanisms for the granting and use of the ARSO-CERT mark by producers discussed. Similarly, the procedure for the conduct of assessments of NSBs of member States for ARSO-CERT membership as well as the assessment of factories for the award of ARSO-CERT mark were explained and discussed at length. Furthermore, the preparation of quality manuals which document the NSB's quality system and accreditation of testing laboratories were highlighted.

### **Objective**

The workshop provided a forum for the participants to study the ARSO Certification System (ARSO-CERT) and acquaint themselves fully with the requirements for its operationalization at both regional and national levels.

### **Organization and attendance**

The workshop was organized by ARSO with support from the United Nations Development Programme (UNDP), for the benefit of its member States. Some relevant regional organizations were also invited to participate in the workshop.

It was attended by 17 representatives of the following countries and organizations: Côte d'Ivoire, Ethiopia, Ghana, Kenya, Malawi, Mauritius, Nigeria, Senegal, Tunisia, Zambia, Zimbabwe, UNECA, ECOWAS, and PTA.

### **Opening of the workshop**

Dr. G. Y. Ahlijah, the Senior Technical Officer of ARSO, opened the workshop and welcomed the participants on behalf of the Secretary-General of the African Regional Organization for Standardization (ARSO) to the ARSO Headquarters the venue of the workshop. He said the workshop was organized in order to explain to the participants the various requirements of ARSO-CERT which the National Standards Bodies (NSBs) and the producers have to comply with.

He recounted the genesis of ARSO-CERT and opined that the stage is now set for its operationalization. NSBs of member States should therefore, align their certification systems according to ARSO-CERT requirements in order to participate fully in the regional certification programme.

He enumerated the objectives and functions of ARSO-CERT and emphasized the need to promote intra African trade which presently is too low in comparison with other regions of the world. This requires he said, the improvement in the quality of African products so that they could compete effectively in the African and world markets. He expressed his hope that ARSO-CERT marked products would be in the market before the end of 1992.

Finally, he conveyed ARSO's gratitude to UNDP for provision of financial resources used to organize the workshop, UNECA for backstopping services and the Kenya Bureau of Standards (KEBS) for arranging factory visits for the participants during the workshop.

## **RECOMMENDATIONS**

### **Action at the National Level**

1. In view of the current trend towards regional certification in certain parts of the world and the important role that the ARSO Certification System (ARSO-CERT) can play in promoting the quality and export potential of African products, member States are called upon to develop their certification facilities and align their certification practices with those of ARSO-CERT and apply for membership of ARSO-CERT in order to realize a harmonized regional certification system in Africa.
2. The National Standards Bodies (NSBs) of member States should study the ARSO Certification System (ARSO-CERT) documents, prepare comprehensive action programmes for implementation of ARSO-CERT and publicise ARSO-CERT amongst industrialists and policy makers in their respective countries in order to gain support for their participation in the regional certification system.
3. Member States should use ARS 9001, 9002 and 9003 which are the quality system standards against which the quality systems of producers shall be assessed under ARSO-CERT.

### **Action at the Regional Level**

1. ARSO should publicise ARSO-CERT extensively overseas and on the African continent especially amongst governments, producers, chamber of commerce, consumers and other identifiable target groups, and assist the NSBs in their publicity programmes.
2. ARSO should compile a list of products which could feature in the Regional Certification System in the initial stages of operation of the system.
3. ARSO is called upon to institute a training programme under ARSO-CERT for training of NSB staff engaged in certification activities especially assessors.
4. ARSO should encourage member States towards qualification for membership of ARSO-CERT by providing assistance in the preparation of documentation required under ARSO-CERT.
5. ARSO should prepare a glossary of terms relating to certification used in member States in order to facilitate communication under ARSO-CERT.
6. ARSO is called upon to reduce the initial certification fee to be paid by producers from US\$ 500 to US\$ 200 in view of the severe foreign exchange constraints of member States and in order to provide incentive to young industries to participate in the system.

7. ARSO should incorporate references to ARS 9001, 9002 and 9003 in the Guide on the National Certification System of National members of ARSO-CERT as these standards shall be used for the assessment of the quality systems of applicant producers under ARSO-CERT.
8. The procedures for assessment of National Standards Bodies (NSBs) and producers under ARSO-CERT should be finalized and published for the use of assessors.
9. ARSO should convene a consultative meeting with all the Sub-regional Economic Communities in Africa on ARSO-CERT in order to obtain their support for the system.
10. ARSO is requested to approach the Organization of African Unity (OAU), the United Nations Economic Commission for Africa (UNECA) and all the African Sub-regional Economic Communities to urge their member States to join ARSO and the ARSO Certification System (ARSO-CERT) in line with the recent Treaty on the African Economic Community (AEC) and to adopt a procurement policy of purchasing products marked under the regional system.

## SESSION I

### MAIN FEATURES OF THE ARSO CERTIFICATION SYSTEM (ARSO-CERT)

#### **Main Issues**

The ARSO Certification System (ARSO-CERT) is a third party certification system designed for application at the regional level in Africa in collaboration with member States and based on African Regional Standards (ARS) or technically equivalent standards of member States. It is aimed at promoting intra and extra-African trade through enhanced quality, marketing advantage, acceptability, and export capability of products that are certified under the system.

The basic legal documents of ARSO-CERT are the Constitution, Rules and Guide. They define the legal framework within which ARSO-CERT operates, the criteria for membership, the procedure for granting and use of the ARSO Certification Mark and the elements of a National Certification System to be operated by members of ARSO-CERT in order to ensure compatibility among the national systems.

The membership of ARSO-CERT is open to all National Standards bodies (NSBs) of ARSO member States. The NSB will apply to ARSO stating the scope of its activities in terms of products or group of products for which it seeks accreditation from ARSO. An assessment of the NSB's facilities and certification system is carried out by independent assessors appointed by ARSO. If favourable, accreditation is granted. This will entitle the NSB among other things, to audit the quality system and inspect products of relevant producers that apply for the ARSO Certification Mark in its territory.

The ARSO Certification Mark is a proprietary mark of ARSO. Licence to use the mark by producers on specific products or group of related products made from one factory might be given upon application by the producer to a national member of ARSO-CERT. The national member shall conduct a systematic assessment of the producers quality system and carry out inspection, sampling and testing of applicable products in accordance with its national certification system. If satisfactory, the NSB shall proceed to apply to ARSO for the use of the ARSO Mark in combination with the national certification mark by the producer. ARSO shall evaluate the documents from the NSB for compliance to ARSO-CERT regulations and if favourable, approve the award of the ARSO Mark to the producer. The surveillance of the producer's quality system and products shall be the responsibility of the NSB. Reports of all surveillance will however, be communicated to ARSO.

The successful and meaningful operationalization of ARSO-CERT will contribute in accelerating the commercial activity and industrialization process of the African continent through:

- (i) Improvement in the quality of African products;
- (ii) Enhancement in the export capability of the products;
- (iii) Harmonization and strengthening of national certification systems;
- (iv) Initiation of new national certification systems;
- (v) Streamlining the activities of national inspection and testing bodies;

- (vi) Accelerated implementation of African Regional Standards (ARS);
- (vii) Elimination of non-tariff barriers to trade.

### **Summary of discussion**

The ARSO-CERT Rules and Guide are based on ISO/IEC Guides on certification, inspection and testing laboratories. Hence, the regional certification system conforms to recommended international practice.

ARSO-CERT will in no way replace or infringe on national certification activities since the ARSO Mark will be used solely for export products where the Mark will provide a marketing advantage and acceptability. The activities of national certification programmes in their territories will therefore, continue as usual. The operation of ARSO-CERT will however, strengthen the national certification systems and harmonize their operations.

Furthermore, ARSO-CERT is not restrictive. Any producer who feels he has got the right level of product quality and that ARSO Mark will promote his export sales is free to apply to an ARSO-CERT national member. The system is therefore, open to all producers in Africa. The only condition is that the producer must have had the conformity mark of the national member for at least one calendar year with respect to the product concerned before coming under ARSO-CERT marking.

The liability of products marked under ARSO-CERT rests with the producer. This is as contained in the Constitution of ARSO-CERT. Generally, most African countries have product liability and customer protection laws which rest liability of any failure, injury or damage caused by products on the producer.

It was opined that the level of intra-trade in the African region which was put at 4 % is rather low. Any programme like ARSO-CERT that can assist in improving the situation is welcome. Africans look for products from the developed world because of their inherent quality. The improvement of the quality of African products is therefore essential. This will make Africans to look inward in their purchasing and also promote the competitiveness of African products overseas. In this connection, information on ARSO-CERT should be directed to various target groups in and outside Africa. ARSO should assist in providing the required information materials for dissemination.

## SESSION II

### PROCEDURE FOR THE ASSESSMENT AND APPROVAL OF A NATIONAL STANDARDS BODY (NSB) FOR MEMBERSHIP OF ARSO-CERT

#### Main Issues

An essential feature of ARSO-CERT is the assessment of the certification system and facilities of National Standards Bodies (NSBs) of member States before membership of ARSO-CERT could be granted. An approval for membership will entitle the NSB to administer the ARSO Certification Mark in its territory on behalf of ARSO. The assessment will determine whether the NSB is competent to carry out this administration which includes audits and certification of applicant producers under ARSO-CERT. The assessment plays a central part in providing evidence on which approvals by ARSO are granted. Each applicant NSB provides basic information on its activities, legal structure and the scope of products for which approval is sought on an application form, but it is essential to obtain objective evidence of the NSB's activities by direct observation.

The assessment is carried out by a panel of assessors appointed by the Secretary-General of ARSO. The assessment criteria include:

- (i) Examination of the administrative and organizational structure of the NSB;
- (ii) Check on the scope and content of the national certification system;
- (iii) A review of NSB's listed assessors, including an examination of their assessment and technical knowledge covering the products where they may be called upon to assess for ARSO-CERT markings;
- (iv) Check on the inspection, sampling and testing capacity and capability of the NSB.

The assessment procedure involves the following:

- (i) System assessment (Review of NSB's documented system); and
- (ii) Compliance assessment (Observing the NSB putting the procedures into practice). This will be carried out at the headquarters of the NSB and by witnessing the NSB assessors operating in inspection, sampling and testing environment at the premises of their Licensee's or applicant producer.

Observations made during the course of the assessment must be grounded on fact. Any reports of non-compliance must be fair, and must be seen to be fair. They must therefore be based on objective evidence which can be logged and verified. To secure the greatest possible measure of agreement on the facts, and to avoid subsequent dispute, an agreed record of any occurrence or observation, which may indicate a failure to comply, is entered on to a **Non-Compliance Report Form**. Non-compliances are classified as major or minor.

A comprehensive report, including the team's overall conclusions and recommendations, is prepared by the Team Leader, and is submitted to ARSO. The report does not identify any companies or organizations visited whilst observing the National Standards Body's assessors in action.

Following the initial assessment and approval of a National Standards Body, the monitoring of its on-going performance is achieved by periodic re-assessment, carried out at the discretion of the Secretary-General of ARSO, by ARSO assessors. Supplementary assessments may also be carried out when the NSB wants to extend the scope of products covered under ARSO-CERT.

### **Summary of discussion**

To gain recognition and credibility which are essential toward meeting the stated objectives of ARSO-CERT, the assessment of National Standards Bodies (NSBs) for accreditation would have to be strict and of comparable standard to that prevailing in well-established accreditation systems elsewhere in the world. In all cases of assessment, objective proof should be sought and there should be no reliance on trust.

The scope of products against which the NSB would be assessed need to be categorically stated in the NSB's application. It is advisable for the NSB to apply for accreditation only in product areas where it has competence at a time since applying concurrently for products where it does not have the capability might lead to a failure of the whole application. If an NSB requires to include additional products to its declared scope of products under which the accreditation was granted, it would have to apply to ARSO specifying the additional products. The capabilities of the NSB to audit, inspect and certify the new products would have to be verified through assessment before it can be accredited with respect to the new products. In certain cases where such extensions to scope are minor the assessment could be done during a surveillance assessment.

In order to avoid ambiguous naming of products that NSB's might declare in its scope for accreditation, ARSO should prepare a code for product classification similar to the Standard Industrial Classification (SIC) Code of the U.K.

Assessor training was identified to be of utmost importance at both national and regional levels. At the national level, NSB assessors need to be trained on the assessment techniques and methods of assessing applicant producers for certification. At the regional level, a team of competent assessors are required for the assessment of National Standards Bodies (NSBs).

The composition of the Council or Board of an NSB is very important. The Council formulates the policy matters of the NSB and oversees its implementation. It oversees the management of the national certification system, etc. It is therefore important that no single interest group should dominate the Council no matter how they are selected. This would guarantee an independent overview of the certification activities.

## SESSION III

### ACCREDITATION OF TESTING LABORATORIES UNDER THE ARSO NETWORK OF TESTING, METROLOGY AND INSTRUMENTATION CENTRES (ARSO-TMICNET)

#### **Main Issues**

ARSO-TMICNET was developed by ARSO to enhance the measurement capability of the African countries through co-operation and sharing of their testing and measurement facilities. It is the regional metrology system which will be responsible for dissemination of measurement standards and lay the foundation for calibration and testing services throughout the continent.

One of the criteria for membership of ARSO-CERT is testing capability. However, testing activities are covered under ARSO-TMICNET and not under ARSO-CERT. Hence, the laboratories used by NSBs under the framework of ARSO-CERT shall be accredited under the auspices of ARSO-TMICNET. The detailed criteria for this accreditation are provided in the Rules for Assessment and Accreditation of Testing and Measurement Laboratories under the ARSO Network of Testing, Metrology and Instrumentation Centres (ARSO-TMICNET).

During the assessment of an NSB for ARSO-CERT membership, the relevant NSB's laboratory accreditation documents shall be available for scrutiny. In cases where outside testing facilities are used, the testing laboratories shall be assessed and accredited under a national laboratory accreditation system established by the NSB in line with ARSO-TMICNET. Documented evidence shall be made available to ARSO-CERT assessors to demonstrate that those outside testing laboratories are adequate for each Certification Scheme.

Under the accreditation rules of ARSO-TMICNET, the applicant laboratory has to specify, in detail, the types of test for which accreditation is sought. They will also list the standard specifications relevant to the tests concerned and the major items of laboratory equipment used to conduct those tests as well as the qualification, experience and training of the laboratory staff. On-site assessment shall however, be conducted in order to determine whether the laboratory complies with the criteria of competence as specified under the Rules of ARSO-TMICNET. The assessment therefore, plays a central part in providing the evidence on which certificates of accreditation are awarded.

The main assessment criteria include:

- laboratory organization and administration
- laboratory staff
- approved signatories
- laboratory equipment
- calibration of equipment
- laboratory practice.

Independent assessors shall be appointed for the purpose of the assessment. The applicant laboratory including all the technical entities covered by the application shall

be subjected to on-the-spot observations whilst the laboratory is conducting its normal business. The assessment team shall provide ARSO with all relevant information concerning the ability of the applicant laboratory to comply with the accreditation criteria and possible additional technical criteria including those which may come about as a result of proficiency testing.

A report on the outcome of the assessment shall be brought to the applicant laboratory's notice. The applicant laboratory shall be invited to present its comments on this report and if requested, to comment on the corrective actions taken, or planned to be taken within a definite time.

After a laboratory is accredited, provisions shall be taken at regular intervals to ensure that the laboratory continues to comply with the accreditation requirements. ARSO shall reassess the laboratory at specified intervals not exceeding three years. Any decision to terminate or suspend accreditation or to curtail the scope of accreditation shall be taken after the laboratory concerned has had the possibility of a hearing.

### **Summary of discussion**

The assessment and accreditation of an NSB's testing laboratory under ARSO-TMICNET will precede the assessment of the NSB under ARSO-CERT. This will make it possible for the NSB to produce documented evidence of its laboratory accreditation during ARSO-CERT assessment. In some cases where it is not possible to arrange a prior assessment and accreditation under ARSO-TMICNET, both assessment teams could visit the country together with one team concerning itself with the testing laboratory accreditation and the other concerned with the factory inspection and certification functions.

In the administration of any accreditation scheme, impartiality, objectivity and credibility are important factors. These should be catered for under the legal framework establishing the system. The assessors, staff, etc. should sign confidentiality statements. They should be free from pressures that might endanger the trust of their independence of judgement and integrity in relation to the assessment and accreditation activities. Under the regional accreditation scheme, ARSO will provide the technical and administrative backstopping services needed, while the actual task of assessment will be conducted by an independent panel of assessors to be chosen on the basis of their qualifications and experience in the particular area in which assessment is to be carried out. Hence, it is necessary in building up the national accreditation system under the NSB to make sure that the rules and procedures are strict and comparable in standard to the regional system.

## SESSION IV

### THE QUALITY MANUAL

#### **Main Issues**

It is now normal practice for all organizations to institute formal quality control systems to control their operations. Under the ARSO Certification System (ARSO-CERT) therefore, the National Standards Bodies (NSBs), their Outside Contractors and Producers, who offer services or engage in production, are expected to develop quality management systems to ensure quality of their services and products. Hence, a Quality Manual (document) stating, the quality policy, quality system and quality practises of the NSB must be produced for use of the NSB's staff. The quality system is the organizational structures, responsibilities, procedures, processes and resources for implementing quality policy.

The Quality Manual should cover the essential elements of the Certification System as prescribed in the Rules of ARSO-CERT. These are:

- (i) Organization and Structure of NSB;
- (ii) National Certification System;
- (iii) Inspection Capability;
- (iv) Sampling Capability; and
- (v) Testing Capability.

NSBs vary in their size, scope of operation, etc. Therefore, it is not possible to produce a definitive model for a quality manual that will meet the needs of all NSBs. However, there exists presently quality manuals covering testing laboratory, manufacturing, certification bodies, etc. which could be studied for guidance before an NSB embarks on the development of a quality manual.

An NSB embarking on the preparation of a quality manual should set up a committee to handle the project. The work of the Committee could conveniently be based on drafts from the various units or departments responsible for specific aspects of certification such as the testing laboratory, quality assurance and inspection, and management. This Committee should be a Standing Committee which should also be responsible for reviewing the manual periodically. The Committee should be serviced by the office of the Quality Manager. It should be noted that the manual should contain mandatory instructions for the performance of the various tasks as opposed to descriptions of how these tasks are normally carried out. Each page of the Quality Manual (including appendices, diagrams, tables and forms) should be uniquely identified (such as unique page number in the form of "page of pages"). The system for page identification should be such as to minimise the risk of undetected omission of current pages and undetected retention of obsolete pages.

The Quality Manual is useless unless it is implemented. The primary responsibility for the manual rests with the Director of the NSB. He should, however, delegate the responsibility for implementation to a Quality Manager who should be one of the divisional heads. All the staff involved in certification work should be issued with copies of the manual.

## **Summary of discussion**

No two organizations are identical and as a consequence, no two manuals will be identical. The manual should match the needs of the NSB and reflect actual situation and practice. The need for the manual must be accepted by top management of the NSB. The quality policy signed by the Chief Executive of the NSB must be produced as the basis for the manual.

In preparing NSB manuals, it might be appropriate to have two documents which might be called:

- (i) Quality policy manual; and
- (ii) Quality procedure manual.

The quality policy manual will address the various elements of the NSB quality system. It can be used for publicity purposes and hence, should not be confidential. The quality procedure manual on the other hand, is a documented procedure and work instructions of the NSB certification, etc. It should be a confidential document.

No manual, regardless of how well prepared, can serve a useful purpose unless the measures which it describes or refers to are actually followed on a day-to-day basis by the staff. It is not the existence of a manual that is of utmost importance, but rather the implementation of an effective quality system. The quality manual simply describes the elements of the system and documents how they are implemented by the NSB.

The nature of information to be provided under each heading and subheading of the quality manual is critical to portraying a true and accurate picture of exactly how the quality system work. Specifying how the information is made accessible to those needing it is a necessary part of the system's operation. In this connection, the quality manual should be in loose leaf form for easy ammendment and should have an ammendment page to indicate all ammendments. The manual needs to be controlled as effective and thoroughly as a financial document. All changes to the manual must be incorporated following a set procedure.

ARSO plans to assist member States in instituting quality systems in their NSBs and documenting this quality system in a Quality Manual. ARSO will therefore produce a model Quality Manual to guide member States in this regard.

## **SESSION V**

### **BASIC INFRASTRUCTURE FOR A NATIONAL CERTIFICATION PROGRAMME**

#### **Main Issues**

Certification is recognised globally as a major way of implementing standards and upgrading the quality of production and service. It is important therefore, for a National Standards Body (NSB) to lay emphasis on certification right from its establishment. The basic infrastructure needed in order to organize and implement the NSB certification programme include:

- (i) Appropriate legislation, regulations or procedures (Standards Act, General Rules, etc.);
- (ii) Standards (documents);
- (iii) Testing facilities;
- (iv) Certification and/or mark of conformity;
- (v) Specific rules (for certification schemes);
- (vi) Knowledgeable, competent and honest professional staff.

The standard act, decree or law is the basic legal document establishing the NSB. It might legislate on the NSB certification activities or this might be covered by a separate government regulation. The legislation on certification provides the legal framework for the national certification programme.

The authority to issue the NSB general rules for certification is derived from the Act. The rules provide details on the organizational structure of the NSB certification work such as the procedure for application and granting of licence, the relationship between assessment and certification functions, etc as provided in the Guide on the National Certification System of National members of ARSO-CERT. The NSB should strive to make the rules as comprehensive as possible. This would ensure orderly and controlled organization of the certification system and provide conformity in the operation of the different certification schemes.

Standards form the basis for certification. The NSB should commence the writing of standards from its inception. All concerned parties should be involved during the preparation of standards and the adoption should be through consensus. The requirements and use of the standards should be clearly specified. The issuing of voluntary or mandatory standards depends on the character of the standard, the status of the NSB and the country's economy. A combined system is favoured considering the safety, health and improvement or maintenance of export reputation of the country.

Inspection, measuring and test equipment are important facilities needed for NSB certification. The capacity and capability might be developed within the NSB or hired from outside. It is however, necessary for the NSB to acquire at least laboratory and equipment for simple tests. Any outside facility contracted by the NSB must be assessed and accredited based on NSB set criteria. In cases where factory laboratories are used, an NSB staff with requisite training and experience in the area of test should supervise the testing and accept responsibility for the test data generated.

The NSB certificate or mark of conformity should be unique and legally protected. One mark supplemented by relevant texts is recommended in order to avoid confusion. Every licence granted to a producer should include a clear identification of the NSB and the licensee. A description of the certified subject as well as conditions for use of the mark or certificate should also be given. Incorrect and/or unlawful use of the mark should be guarded against by the NSB.

Specific rules for certification schemes should be prepared by the NSB in consultation with the producer. The specific rules can for example, state: how the NSB's mark of conformity should be applied; some special requirements for production and quality control; and inspection, testing and surveillance obligations of the NSB and company.

The staff employed in certification activities should have clearly defined and documented duties and authorities. The staff should be technically qualified to perform their functions. Training in certification and allied subjects is needed in order to maintain or upgrade the skills of staff. The importance of recruiting staff members with high integrity is emphasized. Furthermore, the assessment and certification functions should be separated in order for the NSB to be transparently objective in its certification programme.

### **Summary of discussion**

There is need to separate the duties of the following functions in a National Standards Body (NSB): (i) Those that offer technical advice to companies in order to upgrade their quality level; and (ii) Those that assess companies for certification purposes. For example, they can be constituted into different departments. In future, it might be prudent to build up a body of private independent consultants who will take over the role of technical advisory services offered by the NSB as is the case now in the developed countries.

In order to maintain confidentiality in the information staff members (e.g assessors/inspectors) come across in performing their duties it is important that they sign confidentiality statements which should be binding.

Lack of necessary testing facilities could be a hindrance in the execution of the NSB's certification programme. However, a network of testing facilities in the country could be established by the NSB. In some cases, factory testing laboratories might be used. Caution should however, be exercised in the use of factory facilities to make sure that the results generated are authentic. For example, NSB staff may have to conduct the tests themselves.

In some countries, what obtains is a sellers' market. The role of the NSB in these cases are more difficult. The consumers and producers fail to appreciate or understand the certification activities of the NSB. However, the NSB should not feel defeated, it has to prove itself. It has to prove its activities. This means dissemination of information. This should be pursued vigorously and through all the different media. The NSB and producers should be seen as partners in the country's development process. This image has to be built and maintained by the NSB. The top management of the NSB should take the lead.

## SESSION VI

### ASSESSMENT OF A FACTORY FOR THE AWARD OF THE ARSO MARK

#### Main Issues

The type of certification system operated under ARSO-CERT consists of:

- (i) Assessment of the factory quality systems, based on the relevant ARS 9000 series (ISO 9000);
- (ii) Initial product sampling and testing, based on the relevant product standard and specific rules for the scheme.

Following the acceptance of these two elements, licence is granted to the producer to use the ARSO Mark. Surveillance of the factory is then carried out at agreed frequency by:

- (i) Auditing the factory quality system;
- (ii) Testing of samples from the factory and the open market.

In preparing for a quality system assessment, an assessment plan should be drawn up detailing the objectives, scope, methods, procedures, etc. for conducting the assessment. The working documents required to facilitate the assessor's investigation, and to document and report results should be prepared. They might include checklists for evaluating the quality system elements, forms for reporting assessment observations and forms for documenting supporting evidence for conclusions reached by the assessors.

In conducting the assessment, evidence should be collected through interviews, examination of documents, and observation of activities and conditions in the areas of concern. Clues suggesting nonconformities should be noted if they seem significant, even though not covered by check lists, and should be investigated. Information gathered through interviews should be tested by acquiring the same information from other independent sources, such as physical observation, measurements and records.

All assessment observations should be documented. After all activities have been assessed, the assessment team should review all of their observations to determine which are to be reported as nonconformities. The assessment team should then ensure that these are documented in a clear, concise manner and are supported by evidence. Nonconformities should be identified in terms of the specific requirements of the standard or other related documents against which the assessment has been conducted. Observations should be reviewed by the Lead Assessor with the responsible applicant producer's manager. All observations of nonconformities should be acknowledged by the applicant's management.

The sampling of items for initial testing should be defined in the Specific Rules for the scheme that is being assessed. These Rules should specify the precise selection method for taking samples for inspection and test, in a formalised sampling procedure. The samples should be representative of the entire line or group of production to be certified, and be made from production tools and assembled using methods established for the production run.

The samples should be tested in accordance with the applicable standards. They should be tested in laboratories which has been accredited in accordance with the Rules of ARSO-CERT. The laboratory may be owned or contracted to by the NSB. A test report should be issued which accurately, clearly, unambiguously and objectively presents the test results and all relevant information. Particular care and attention should be paid to the arrangement of the test report, especially with regard to presentation of the test data and ease of assimilation by the reader. The format should be carefully and specifically designed for each type of test carried out, but the headings should be standardized as far as possible throughout the testing laboratory.

Surveillance are carried out to ensure that the Licensee's quality system and products continues to meet the requirements of the relevant standard and specific rules. The surveillance may be carried out by the National Standards Body (NSB) or it may appoint an agent to act on its behalf. In such cases the agent shall have the facilities and qualified staff necessary to effectively administer the Rules of ARSO-CERT.

### **Summary of discussion**

To carry out a successful assessment of a firm, planning is required. It is usual to devote 50 % of the allotted time to planning, 30 % to carrying out the audit and 10 % each for collating the results and reporting.

There is no clear cut guideline on the strength and composition of an assessment team. This should be ironed out at the planning stage. The team leader need not be a specialist in the field to be assessed. He acts as a co-ordinator of the assessment. The other team members could be specialists in the various fields. These specialists need not necessarily be assessors. They could be brought in at required time which might not cover the whole period of the assessment. The team leader should, however, be around throughout the assessment period.

In cases where specialists are contracted from outside the NSB, checks and balances should be instituted to avoid the specialists going for an assessment of a factory where they probably have conflicting interests such as if they come from a competing company. The company to be assessed will normally, be given the names of the assessors, specialists and team leader before the assessment and should be free to reject a candidate with good reason.

In carrying out an assessment, it is necessary to ask open questions. In this connection, the words how, what, when, where, who and why could be used. If in doubt, assessors should confirm by asking questions such as: show me; what if; sorry I don't understand; and have I understood you correctly. Generally, an assessor should not: ask more than one question at a time; be afraid to wait for an answer; answer the question himself; talk down to staff; and criticise.

The ARS 9000 (ISO 9000) series is not necessarily for big companies but could be applied by both small and medium scale industries. In quality system assessments, ARS 9001, 9002 or 9003 could be used depending on the situation. African entrepreneurs have to face up to the challenge by companies overseas who are already using the quality system standards. A start must be made by introducing and implementing a documented quality system in line with the appropriate 9000 standard.

## SESSION VII

### ADMINISTRATION OF THE ARSO MARK

#### **Main Issue**

The National Standards Body (NSB) is to carry out all certification activities under the framework of ARSO-CERT in its territory. ARSO will not be involved in the physical assessment of producers. It will be involved mainly in coordinating, supervising and taking final decision on the award of the ARSO Mark to the producer.

Producers in respective member States shall apply to national members of ARSO-CERT for the ARSO Mark by completing the necessary application form and associated documents. The NSB will evaluate the application and arrange to visit the factory in order to assess the quality system of the company and carry out inspection of products. If satisfactory, the NSB shall apply to ARSO for the use of the ARSO Mark by the producer enclosing the following documents:

- (i) Standard(s) that form the basis for the certification;
- (ii) Specific rules for the certification scheme; and
- (iii) Assessment/inspection, sampling and test reports.

ARSO evaluates the documents for conformance to ARSO-CERT and approve or disapprove the use of ARSO Mark by the producer. The licence when granted will be valid for one calendar year and should be renewed one year at a time. The surveillance of the quality system and products is the responsibility of the NSB. Reports of each surveillance will however, be forwarded to ARSO.

The publicity of certificated products and licensees under ARSO-CERT will be done by ARSO, NSBs and producers. The NSBs and ARSO shall at least annually prepare a directory containing the names and addresses of licence holders as well as the products covered by the licences. The list should be made public. Newsletters or magazines published by the NSBs or ARSO could also be used to publicize licenced products.

Another publicity forum is during international trade fairs - where licenced products could be exhibited. The producer on the other hand could within the duration of the licence advertise his product with reference to the Mark at appropriate media, when answering queries on future orders or when entering agreements on acceptance tests, etc.

The NSB should have a procedure for taking prompt and appropriate action in cases where the ARSO Mark is incorrectly and/or unlawfully used by both licence and non licence holders. Instances of misuse and corrective actions differ. The NSB should handle each case as it arose.

The operation of ARSO-CERT could be accelerated through information and publicity. Information is required in order to stimulate the interest for and understanding of ARSO-CERT by large groups of industries, chambers of commerce, trade organizations and governments. The production of requisite information materials is a

professional task which only few NSBs of member States could undertake. ARSO should therefore, supply the printed materials. The NSBs should lead in the dissemination of the materials because of their closeness to the target groups.

### **Summary of discussion**

The non-existence of African Regional Standards (ARS) and national standards in some product areas where there are potential for intra-African trade might be a hindrance to full implementation of ARSO-CERT. ARSO should therefore expedite the preparation and adoption of standards in these selected fields when identified. In this connection, the list of possible products that could feature in ARSO-CERT which were put forward by participants in their country papers should be of assistance.

In every application for licencing under ARSO-CERT, the NSB should conduct fresh initial assessment of the quality system and inspection and testing of the relevant products. This is irrespective of the fact that this might have been done one or more years back in the process of awarding the National Mark of conformity. The report of this new assessment and inspection will be forwarded to ARSO with other relevant documentations by the NSB seeking the award of the ARSO Mark to the producer.

It was proposed that the initial annual fee to be paid by producers who are licenced under ARSO-CERT should be considered for reduction from US\$ 500 to US\$ 200. This is due to the foreign exchange constraints of most African countries and the inexperience of many African entrepreneurs who will come forward for marking under ARSO-CERT.

The renewal of a licence under ARSO-CERT is subject to mutual agreement between the NSB and the producer. The NSB may have cause to suspend or withdraw the licence. Similarly, the producer might not want to continue under the scheme. In cases where the licence is withdrawn or the producer discontinues from the scheme, it is more appropriate when publicising the issue by the NSB to use the wording "non-licence renewal" instead of "de-registration" of company.

## ANNEX 1

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## ANNEX 2

### LIST OF DOCUMENTS

<b>Designation</b>	<b>Title</b>
ARSO/91/WK.1/1	Provisional list of Documents
ARSO/91/WK.1/2	Aide Memoire
ARSO/91/WK.1/3	Provisional Programme
ARSO/91/WK.1/4	List of Participants
ARSO/91/WK.1/5	Main features of the ARSO Certification System (ARSO-CERT)
ARSO/91/WK.1/6	Procedure for the Assessment and Approval of a National Standards Body (NSB) for Membership of ARSO-CERT
ARSO/91/WK.1/7	Basic Infrastructure for a National Certification Programme
ARSO/91/WK.1/8	Accreditation of Testing Laboratories under the ARSO Network of Testing, Metrology and Instrumentation Centres (ARSO-TMICNET)
ARSO/91/WK.1/9	Assessment of a Factory for the Award of the ARSO Mark
ARSO/91/WK.1/10	Administration of the ARSO Mark
ARSO/91/WK.1/11	The Quality Manual
ARSO/91/WK.1/12	Country Papers

## **PART TWO**

### **TECHNICAL PAPERS PRESENTED AT THE WORKSHOP ON THE ARSO CERTIFICATION SYSTEM (ARSO-CERT)**

# PAPER I

## Main features of the ARSO Certification System (ARSO-CERT)

By

Mr. I. M. Adinnu

*Quality Control Engineer, African Regional  
Organization for Standardization (ARSO)*

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## 0 INTRODUCTION

Certification is a major and effective means of implementing standards. A product standard specifies the “**quality of design**” of the product. The “**quality of conformance**” of the product could be verified through certification, etc. Thus, certification is an effective tool for introducing and maintaining a quality system in a company thereby, promoting productivity.

Regional and international certifications could promote world trade by enhancing the quality of traded goods and services. It could also reduce the time and expense involved in the retesting of product, etc. traded across borders for conformity to specifications. It however, requires the development and operation of acceptable common working tools in the form of standards, rules and procedures.

There is currently a global movement toward economic integration in different regions of the world. The Europe 1992 and the recent Treaty establishing the African Economic Community (AEC) are ready examples. In Africa particularly, with only 10 % of the world population but up to one third of the countries of the world, there is a greater need for across border co-operation in trade, manufacturing and other fields in order to enjoy the benefits of a big market economy. This however, requires among other factors, the gradual but consistent removal of physical, fiscal and technical barriers to trade within the African countries.

Elimination of technical barriers to trade can be achieved through standardization and related activities. Harmonization of standards and certification rules and procedures in the African countries are important factors in this direction. Harmonization of standards is an on-going activity of ARSO. In 1980, the Lagos Plan of Action for the Economic Development of Africa (LPA) realized that harmonization of national standards in Africa is in itself not enough. It was noted that there was little point in agreeing on standards if inter-country acceptance of test results and certificates/marks of conformity is not achieved. The LPA, therefore, *inter-alia*, directed ARSO to operate a certification marking system in order to certify and promote the quality of goods in Africa.

Within the decade 1980-1990, ARSO took a number of steps in order to realize this mandate. These included:

- (i) Organizing training workshops in quality control and certification;
- (ii) Conducting expert studies on national, reciprocal, multinational and regional certification systems;
- (iii) Developing the modality and methodology for the establishment and operation of a regional certification system, that is, the ARSO Certification System (ARSO-CERT);
- (iv) Convening an Expert Group Meeting on Certification which reviewed and adopted rules and procedures which constitute the :
  - Constitution of ARSO-CERT
  - Rules of ARSO-CERT
  - Guide on the National Certification System of National Members of ARSO-CERT.

- (v) Final approval of the above rules and procedures of ARSO-CERT by the ARSO Council in November 1990 in Nairobi, Kenya.

Basically, ARSO-CERT is a regional certification programme designed for application at the regional level in Africa in collaboration with member States and based on African Regional Standards (ARS) or technically equivalent standards of member States. It is aimed at promoting intra- and extra-African trade through enhanced quality and export capabilities of products that are certified under the system.

## **1. OBJECTIVES AND FUNCTIONS OF ARSO-CERT**

- 1.1 As indicated in the introduction, the ARSO Certification System (ARSO-CERT) is primarily intended to improve the quality of African products thereby facilitating intra- and extra-African trade. The ARSO Certification Mark will be used mainly for export products where the mark would provide a marketing advantage and acceptability.
- 1.2 The specific objectives of ARSO-CERT as provided in the Constitution of ARSO-CERT are:
  - a) Certification of goods produced in accordance with African Regional Standards (ARS);
  - b) Improvement of the quality of goods produced in Africa;
  - c) Facilitation of trade amongst African countries and with the outside world; and
  - d) Provision of a forum for collaboration in certification activities in the African region with a view to affording mutual benefits to the participating members of ARSO-CERT.
- 1.3 In order to achieve the above objectives, ARSO-CERT shall, through its members and organs, seek to:
  - a) Establish principles, rules, guides and directives for the operation of ARSO-CERT;
  - b) Contribute to the implementation of African Regional Standards (ARS);
  - c) Ensure application of uniform working methods and procedures in certification, and techniques used in certification;
  - d) Assist in establishing and strengthening national capabilities for certification in African countries by providing training and technical advisory services including promotional and other support services.
  - e) Compile and disseminate information on products under ARSO-CERT and under the national certification systems of participating members of ARSO-CERT;
  - f) Endeavour to satisfy the technical needs of the African Sub-regional Economic Communities for certification;
  - g) Facilitate co-operation between ARSO and other regional and multinational bodies operating certification systems; and

- h) Endeavour to satisfy the needs of member States not yet operating certification systems through members of ARSO-CERT.

## **2 MEMBERSHIP**

### **2.1 Categories of membership**

Two categories of members are provided for in the Constitution of ARSO-CERT. They are:

- i) National member; and
- ii) Associate member.

#### **2.1.1 National member**

This category of membership is open to all National Standards Bodies (NSBs) of member States whose national certification system and facilities have been assessed and approved in accordance with the Constitution, Rules and Guide of ARSO-CERT. The national member will carry out on behalf of ARSO all the administrative and technical activities with respect to ARSO-CERT in its territory, etc. There shall be only one national member of ARSO-CERT for a given member State.

#### **2.1.2 Associate member**

An African Sub-regional Economic Community that has developed a formal relationship with ARSO will on application, become an associate member of ARSO-CERT. The associate member will promote ARSO-CERT within its sub-region and provide necessary information to ARSO for the progressive operation of ARSO-CERT.

### **2.2 Assessment for membership**

A National Standards Body (NSB) of a member State shall on application be assessed for membership of ARSO-CERT. The assessment will be conducted by a panel of assessors appointed by the Secretary-General of ARSO (ARSO SG). The assessment shall be based on the criteria specified in the Rules of ARSO-CERT and procedure developed by ARSO<sup>1)</sup> The panel of assessors will compile an assessment report which would be made available to the assessed NSB for comments. The ARSO SG, shall on the basis of the assessment report and comments on the report received from the NSB, approve or disapprove the application for membership.

In case of disapproval, the reasons shall be given including recommendations for remedial action.

## **3. THE ARSO CERTIFICATION MARK**

### **3.1 General**

- 3.1.1 The ARSO Certification Mark is as shown in figure 1. The Mark would be registered in all member States, regional industrial property organizations and other necessary

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1) See the procedure for assessment and approval of a National Standards Body for membership of ARSO-CERT (Paper II).

countries. The proprietary right of the mark shall belong to ARSO. The minimum outer diameter of the Mark to be affixed on a product shall be 5 mm. The mark shall be affixed in combination with the national mark of conformity. The other conditions for marking will be specified in the specific rules for each scheme.



Figure 1: Model of the ARSO Mark.

### 3.2 Licence to use the Mark

3.2.1 The use of the ARSO Mark by producers, shall be granted for specific products or group of related products, made from one factory, upon application by a producer to a national member of ARSO-CERT. The complete administration<sup>1)</sup> of the Mark within a member State shall be the responsibility of the national member and in accordance with the national certification system. The Guide on the National Certification System of National Members of ARSO-CERT, contains the recommended features of a national certification system based on the ISO System No. 5. **The procedure and documentation contained in the Guide must be uniformly applied by national members so that compatibility in the administration of certification among national members of ARSO-CERT will be achieved.**

- 3.2.2 The operational phases of a national certification as contained in the Guide includes:
- a) Assessment of the quality system of the factory (must meet relevant quality system standard e.g. ISO 9000 series);
  - b) Initial sampling and testing of product (must meet product specifications which could be an ARS or technically equivalent standard of a national member); and
  - c) Surveillance of the factory including testing of samples from factory and open market (must meet the agreed conditions, specific rules, etc.).

1) See the paper on Administration of the ARSO mark (Paper VII).

### 3.2.3 The main documentation requirements includes:

- i) Legislation (regulations);
- ii) General Rules;
- iii) Specific Rules;
- iv) Application form including initial factory assessment questionnaire;
- v) Assessment reports (pre-licence, sampling, test and surveillance report forms);
- vi) Licensing certificate.

## 4 BENEFITS OF ARSO-CERT

### 4.1 Contributing towards improving the quality of African products and expansion of intra- and extra-African trade

The operation of ARSO-CERT is expected to contribute towards the increase in volume of intra-African trade and the productivity of African industries. Presently, Africa is lagging behind the rest of the world in manufactured exports. The acceptance of African products within and outside Africa depends largely on an improvement in the quality of African products and the manufacturing capability, marketing strategies, etc., of the producers. The ARSO-CERT will assist in this direction.

It will also assist in:

### 4.2 Strengthening and harmonization of existing national certification systems of the African countries

The application of uniform working methods and procedures as contained in the Guide and the assessment and re-assessment of national certification systems by a panel of independent assessors is expected to bring about the much desired harmonization of the national certification systems. This will also strengthen the national certification systems particularly in the areas of documentation, inspection services and testing facilities as the requirements of ARSO-CERT will act as a driving force for improvement.

### 4.3 Initiation of new national certification systems

The operation of ARSO-CERT will propel and facilitate member States and other African countries that do not operate certification systems to initiate them. Documentations on ARSO-CERT would be made available for guidance. Technical assistance in the form of experts, training opportunities and literature will also be available from ARSO.

### 4.4 Implementation of African Regional Standards (ARS) issued by ARSO

The ARS or technically equivalent national standards of member States will form the basis for the regional certification programme. The successful implementation of these regional standards through ARSO-CERT would prove their effectiveness thereby, enhancing the image of African products not only in African markets, but in other regions of the world.

#### **4.5 Elimination of non-tariff barriers to trade**

The ARSO-CERT will facilitate the removal of the technical barriers to trade among the African countries, through the application of harmonized certification system and African Regional Standards (ARS).

### **5 CONCLUSION**

The following salient features of the ARSO-CERT need reiteration:

- a) The national certification system of national members of ARSO-CERT shall need to comply with:
  - (i) ARSO-CERT Constitution;
  - (ii) ARSO-CERT Rules;
  - (iii) Guide on the national certification system of national members of ARSO-CERT.
- b) The complete administration of the ARSO Mark within a country shall be the responsibility of the National Standards Body (NSB);
- c) The ARSO Mark shall be in addition to the national mark, i.e. a producer shall be eligible for the ARSO Mark only if it has had the national mark for a period of one year or more for a specific product. On a given product, both marks shall be displayed side by side;
- d) The ARSO Mark shall be available only for products complying with African Regional Standards (ARS) or their technically equivalent national standards;
- e) The ARSO mark will be used mainly for export products where the mark would provide a marketing advantage and acceptability;
- f) The ARSO Mark will in no way infringe on the authority and popularity of the national marks, but will merely enhance the acceptability of national certification marks of ARSO member States outside their national boundaries, particularly within the countries of the African continent.

Africa urgently needs to accelerate its commercial activity and industrialisation process, if it is to achieve the growth rate required to sustain its people and fulfill their future aspirations. ARSO has a significant role to play in this process. The operationalization of ARSO-CERT is therefore not only timely, but crucial as well.

## PAPER II

### Procedure for the Assessment and Approval of a National Standards Body (NSB) for membership of ARSO-CERT

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## **Preface**

This paper describes the procedure for carrying out the assessment and subsequent approval of a National Standards Body, following its application for membership of ARSO-CERT.

It summarises the administrative procedures followed by ARSO leading up to an assessment, and proceeds to describe the various stages involved in the initial, periodic and supplementary assessments.

The requirements which have to be met by National Standards Bodies, engaged in the assessment of applicant producers for compliance with the ARSO certification system and award of the ARSO Certification Mark are defined in the African Regional Organization for Standardization (ARSO) 'CONSTITUTION, RULES AND GUIDE OF ARSO-CERT', issued November 1990.

The Secretary-General of ARSO shall grant approval or disapproval for the National Standards Body to become a national member of ARSO-CERT based on the result of the assessment.

An approval will entitle the national member to administer the use of the ARSO Certification Mark in its territory on behalf of ARSO.

## **1 INTRODUCTION**

- 1.1 The main function of ARSO-CERT is to assess the competence of National Standards Bodies (NSBs) to carry out assessments on applicants (producers) whose quality system is required to be in compliance with an approved Certification Scheme. Assessment plays a central part in providing the evidence on which approval for membership of ARSO-CERT is granted.

Each applicant National Standards Body provides basic information on its activities, legal structure and the scope for which approval is sought, on an applicant form, but it is essential to obtain objective evidence of the National Standards Body's activities by direct observation. The purpose of this on-site assessment is to determine whether or not the National Standards Body complies with the criteria of competence prescribed by ARSO-CERT, and the regulations governing approval.

- 1.2 The assessment of the national certification systems of member States of ARSO shall be carried out by a Panel of Assessors appointed by the Secretary-General of ARSO. The assessors shall be familiar with the relevant assessment procedures and requirements, and have a thorough knowledge of the assessment documents. They shall also be technically conversant with one or more aspects of certification, be able to communicate effectively, and be free of any commercial or other interests that might cause the assessor to act in other than an impartial or non-discriminatory manner.

## **2 APPLICATION/COMPLETION OF QUESTIONNAIRE BY NSB**

- 2.1 A National Standards Body of a member State of ARSO, seeking membership of the ARSO Certification System (ARSO-CERT), must first submit a completed application form (copies of which can be obtained on application to the Secretary-General of ARSO), together with a current copy of its Quality Manual, and other necessary documentations.

- 2.2 This form, when completed, will be a confidential document, and will require the following information to be recorded on it by the applicant:

- a) Name and address of the National Standards Body;
- b) Name of person to be contacted;
- c) Telephone and Fax Number of National Standards Body;
- d) Declaration of its legal structure, supported by documentation identifying its legal status;
- e) Scope of the products for which it seeks to issue licences to use the ARSO Certification Mark;
- f) A declaration from a senior member of the National Standards Body, that verifies the information on the form to be signed and dated.

### **3 ADMINISTRATION OF ASSESSMENTS**

- 3.1 On receipt of the application form and associated documentation, ARSO will check that the National Standards Body meets the legal aspects of the certification scheme, and that all the requirements of the National Certification System have been addressed.
- 3.2 When the Secretary-General of ARSO is satisfied with the correctness of the application, he will nominate a Panel of Assessors, and the name of the Team Leader, who will be responsible for carrying out the assessment.
- 3.3 The Secretary-General of ARSO will transmit the names of the assessors to the applicant NSB of a member State, that is seeking membership of ARSO-CERT, at least eight weeks in advance of the assessment.

### **4 THE SCOPE OF ASSESSMENTS OF THE NATIONAL CERTIFICATION SYSTEMS, AND THE CRITERIA TO BE APPLIED**

- 4.1 During the ARSO-CERT assessment of a National Standards Body (NSB) the scope of the assessment will cover the following areas, and the assessment will be carried out against the indicated criteria:
  - a) An examination of the Organization and Structure of the National Standards Body.  
This requires the NSB to have:
    - (i) A Governing Board, with a permanent staff under a full-time Chief Executive;
    - (ii) Documentation identifying its legal status;
    - (iii) An organization chart, with clearly defined lines of responsibility and reporting;
    - (iv) Description of the means by which the NSB obtains its financial support;
    - (v) Documentated instructions relating to the duties and responsibilities of its staff;
    - (vi) Documentation of its certification system, including the Rules and Procedures for obtaining its certification mark;
    - (vii) Records to show how each of the certification procedures has been applied, including the sampling testing and reporting.
  - b) A review of the NSB's listed Assessors, including an examination of their assessment and technical knowledge covering the products where they may be called upon to assess for ARSO-CERT markings.
  - c) It is required that the National Certification System shall correspond to the certification system prescribed in the **Guide on the National Certification System of National members of ARSO-CERT**.

- d) **Inspection capability:** The NSB shall have the necessary resources to carry out all activities associated with its inspection services. The inspection staff shall be competent in quality assurance and inspection techniques. The NSB shall have documented procedures for carrying out quality control and inspection. Where this quality control and inspection work is sub-contracted to an outside body, the NSB shall be responsible for the verification of the competency of the sub-contractor, and shall make all documented evidence of this verification available to the Panel of Assessors, for examination.
- e) **Sampling capability :** The NSB shall have the necessary resources to carry out all activities associated with its sampling services. The sampling staff shall be technically qualified and have the ability to apply the necessary statistical techniques in sampling work.

The NSB shall have documented procedures covering all aspects of sampling, including:

- selection and preparation of samples;
- receipt, retention and disposal of samples;
- handling, marking, storing and preservation of samples to prevent damage, contamination, corrosion or the application of stresses to the samples.

Where the sampling work is sub-contracted to an outside body, the NSB shall be responsible for the verification of the competency of the sub-contractor, and shall make all documented evidence of this verification available to the Panel of Assessors, for examination.

- f) **Testing capability:** The NSB shall have the necessary resources to carry out all activities associated with its testing services.

Where the testing work is sub-contracted to an outside body, the NSB shall assess and accredit the sub-contractor in accordance with the **ARSO Rules for Assessment and Accreditation of Testing and Measurement Laboratories**, and shall make all documented evidence of this verification available to the Panel of Assessors, for examination.

Due attention shall be paid to the following as defined in the **ARSO Rules for Assessment and Accreditation of Testing and Measurement Laboratories**:

- Laboratory Organization;
- Laboratory Staff - competence, skills, training;
- Laboratory Equipment;
- Calibration of Equipment;
- Laboratory Practice;
- Laboratory Accommodation and Environment.

## 5 THE ASSESSMENT PROCEDURE

- 5.1 Prior to carrying out the assessment of the NSB of a member State, the Secretary-General of ARSO will brief the Team Leader and the Panel of Assessors on any observations resulting from his review of the Application Form and the supporting documentation submitted by the NSB.
- 5.2 The Secretary-General will brief the team on any logistics of the operation.
- 5.3 The Team Leader, and other nominated members of the Panel of Assessors, will, wherever practicable, review the documentation prior to carrying out the assessment, and will produce corresponding Check Lists for use as aide-memoires during the assessment.
- 5.4 The Team Leader will produce a programme for the assessment, and this will be submitted by the Secretary-General to the applicant, at least two weeks before the scheduled date of the commencement of the assessment.
- 5.5 Following the review of the National Standards Body's documented system (the System Assessment), the next important phase of the assessment is to observe the National Standards Body putting the procedures into practice (the Compliance Assessment). This will be carried out in two basic areas:
- i) At the Headquarters of the National Standards Body;
  - ii) By witnessing the NSB assessors operating in Inspection, Sampling and Testing environments at the premises of their Licensee's, or applicant Licensee's.
- 5.6 The HQ assessment begins with an Opening Meeting held with Senior Staff of the National Standards Body. A member of the ARSO staff is usually present, to deal with any policy points which may arise.
- 5.7 The Opening Meeting is held on arrival and immediately before the assessment commences. It is intended to enable the team and the National Standards Body's representatives to become acquainted, to clear up any difficulties or queries concerning the purpose of the assessment and to identify what is expected of the National Standards Body during the assessment. It is chaired by the Team Leader, and covers the following points:
- a) Introductions;
  - b) An explanation of the purpose of the assessment and the functions of the assessors, and to confirm that the National Standards Body's staff understand the procedure;
  - c) The significance of the quality manual, with its documented procedures;
  - d) A review of the agreed assessment programme;
  - e) The role of the National Standards Body's representatives in the assessment, particularly in agreeing any observation of apparent non-compliance with the criteria defined in the **Rules of the ARSO Certification System**;

- f) An explanation of what will happen at the interim and final closing meetings, and confirmation of the time and venue of the former;
  - g) An assurance that all findings will be treated in strict confidence;
  - h) Confirmation that administrative support will be available for the assessors;
  - i) Confirmation of working, travelling and accommodation arrangements;
  - j) Confirmation of the arrangements to be made for outside visits;
  - k) Establishing to whom the Team Leader will appeal, should any problems arise during the course of the assessment.
  - l) An opportunity for the National Standards Body representatives to ask questions.
- 5.8 During the HQ assessment, the assessors need to form a general impression of the National Standards Body's capability, of the effectiveness of its system, of the competence of its administrative staff, and in particular its ability to meet the **Rules of the ARSO Certification System**. The assessment therefore proceeds by the assessors examining the operation of the general system for ensuring compliance, and then selecting particular areas of work for more detailed study.
- 5.9 Observations made during the course of the assessment must be grounded on fact, any reports of non-compliance must be fair, and must be seen to be fair. They must therefore be based on objective evidence which can be logged and verified. To secure the greatest possible measure of agreement on the facts, and to avoid subsequent dispute, an agreed record of any occurrence or observation, which may indicate a failure to comply, is entered on to a **Non-Compliance Report Form**.
- 5.10 The assessors will take due note of any instance where the work of the National Standards Body is subcontracted to an external body, and will ensure that the requirements of ARSO-CERT have been compiled with. Subcontracting does not remove any of the National Standards Body's responsibilities for compliance with the Rules.
- 5.11 At the end of the HQ assessment, the assessors will hold an Interim Closing Meeting. This interim meeting is held, as the assessors still need to assess the competence of the National Standards Body's assessors operating with applicants/licensee's, before a Final Closing Meeting can be convened. The Interim Closing Meeting will cover the following points:
- a) Review of any non-compliances raised during the assessment;
  - b) Discuss any corrective actions proposed by the National Standards Body;
  - c) Ensure that each Non-Compliance Report Form has been signed by the National Standards Body to signify agreement of fact, and determine the time required to clear the non-compliance;
  - d) Confirm the number of assessments and surveillances at which the ARSO assessors wish to witness the NSB assessors in action;
  - e) Explain the method to be adopted for assessing the NSB assessors.
- 5.12 Assessing the competence of the NSB assessors demands a different technique to system assessment. Having first explained to the applicant/licensee the reason for the presence of the ARSO assessors, and assured him that this presence will have no bearing on the outcome of the assessment, the ARSO assessor will accompany the NSB assessor during

the whole of the assessment. He will take detailed notes, examine documents or other items, but will ask no questions and make no comment until after the closing meeting between the NSB assessors and the applicant/licensee.

- 5.13 After the closing meeting, the ARSO-CERT Team Leader will discuss the findings of his team with the Team Leader of the NSB assessors, and will comment on the performance of the NSB assessors, regarding their competency in carrying out the assessment of the applicant/licensee. Non-Compliance Reports will be raised by the ARSO-CERT Team Leader, as appropriate.
- 5.14 It is essential that the National Standards Body seeks the agreement of the applicant/licensee to the presence of the ARSO-CERT assessors at the external assessments, and that this agreement, together with a list of essential information required by the ARSO-CERT assessors prior to an external assessment, are forwarded to the ARSO-CERT Team Leader well in advance of each visit. The National Standards Body will be notified of the extent of this information at the Interim Closing Meeting.

## **6 RECORDING FAILURES TO COMPLY WITH ASSESSMENT CRITERIA**

- 6.1 Non-Compliance Report Forms (NCRs), are used by the ARSO-CERT Team Leader to record failures to comply with the **Rules of ARSO-CERT**). They are part of the evidence on which the Team Leader's recommendations to ARSO will be based.
- 6.2 The NCRs raised by the ARSO-CERT Assessment Team, shall record only factual observations relating to possible non-compliances with a specific clause in the ARSO-CERT Rules. It is the responsibility of the Team Leader, aided by advice from the assessment team, to confirm the non-compliances, and to categorise them before formal presentation to the National Standards Body.
- 6.3 If considered practicable, the NCRs, will be completed with the following information at the time of observation:
  - a) Where the observation was made;
  - b) Date the observation was made;
  - c) Any documents involved;
  - d) A record of the facts observed;
  - e) The name(s) of the person(s) with whom the matter was discussed;
  - f) Related clause number in the ARSO-CERT Rules;
  - g) The signature of the ARSO-CERT assessor and the representative of the National Standards Body accompanying him;
- 6.4 Non-Compliances are classified into two types, identified as **Major and Minor**
- 6.4.1 A Major non-compliance is allocated for a significant failure to comply with the ARSO-CERT Rules, or with the National Standards Body's own Quality Manual. Examples would be:
  - a) Lack of a documented operational quality control system;
  - b) Absence of a documented procedure for a fundamental element of the quality system;

- c) Failure to adequately control subcontractors performing testing on behalf of the National Standards Body.

6.4.2 A Minor non-compliance is allocated for an individual failure to comply with the ARSO-CERT Rules, or with the National Standards Body's own Quality Manual, or if a series of minor but related discrepancies are observed, which together are judged to be an unacceptable quality risk, without constituting an overall system failure in the area concerned.

These non-compliances are usually random and unsystematic human errors. Corrective action is more likely to be in the areas of briefing or training, than in the area in which the non-compliance was observed.

## **7 FINAL MEETING WITH THE NATIONAL STANDARDS BODY**

7.1 After the assessors have completed all the 'field assessments', the results will be combined with those of the HQ assessment, allowing an overall impression to be gained of the National Standards Body's competence.

The Team Leader will then liaise with the Secretary-General of ARSO and the NSB to convene a Final Closing Meeting, during which he will present to NSB management a summary of the results of the assessment. A representative of ARSO will usually be present at this meeting, to answer any points of a legal or policy nature.

7.2 During this meeting the Team Leader will present all the Non-Compliance Report Forms that have been raised, to ensure that they are fully understood by the management team, and will answer any questions raised on points of clarification. He will ensure that copies of all the NCRs are handed over to management, in order that they can indicate the corrective action that they intend to carry out, and the time scale for its completion.

He will not comment on the likely recommendation to ARSO, or on the possible outcome of their deliberations.

## **8 THE FINAL REPORT**

8.1 A comprehensive report, including the team's overall conclusions and recommendations, is prepared by the Team Leader, and is submitted to ARSO. The report does not identify any companies or organizations visited whilst observing the National Standards Body's assessors in action.

8.2 This report is then forwarded to ARSO, whose staff members shall have no direct interest in the National Standards Body under review. If requested, the Team Leader will attend a meeting with the Secretary-General of ARSO, to answer any points of clarification concerning the report.

## **9 FACTORS AFFECTING RECOMMENDATIONS FOR ACCREDITATION**

- 9.1 In deciding on his recommendation, the Team Leader will first consider the adequacy of the National Standards Body's management to run its systems and reach proper conclusions, with regard to the awarding of a licence. He will report on the range of knowledge and experience on the part of the National Standards Body's HQ staff and their assessors, in the light of their scope of operations. The Team Leader will also take into account the number and seriousness of the individual non-compliances found during the assessment.
- 9.2 Where competence is established, and no non-compliances are found, or where they are few and have been closed out before the Final Closing Meeting, the Team Leader will normally recommend the approval of the NSB for membership of ARSO-CERT.
- 9.3 Where this is not the case, and some non-compliances are still outstanding at the Final Closing Meeting, a date for specifying the proposed corrective action and the close-out will be agreed. The period allowed will not, except in very unusual circumstances, be more than 3 months. Normally a period of one month would be regarded as reasonable for minor non-compliances.
- 9.4 If the Secretary-General of ARSO has some concern over the report findings, he can request an extension of the assessment, which is then taken into account with the initial report, or he can increase the normal frequency of periodic assessments/surveillances until he is satisfied that the National Standards Body's performance is totally acceptable.
- 9.5 Where competence is not established, or where the number and seriousness of the non-compliances found is such that the whole of the National Standards Body's quality system and organization is demonstrably inadequate, the Team Leader's recommendation will be that approval is refused.

## **10 PERIODIC AND SUPPLEMENTARY ASSESSMENT**

- 10.1 Following the initial assessment and approval of a National Standards Body, the monitoring of its on-going performance is achieved by periodic re-assessment, carried out at the discretion of the Secretary-General of ARSO, by ARSO-CERT assessors. The frequency of the visits may be changed if there are reasons to suspect that performance may have deteriorated, or if the National Standards Body undergoes a significant re-organization.
- 10.2 Any failure on the part of the National Standards Body to maintain its compliance with the Constitution and Rules of ARSO-CERT, may result in the ARSO Council suspending its membership of ARSO-CERT.
- 10.3 Supplementary assessments may be carried out, at the discretion of the Secretary-General of ARSO, to ascertain that national members of ARSO-CERT continue to meet the requirements of the National Certification System, when there is a need to extend the scope of products.

## **PAPER III**

### **Accreditation of Testing Laboratories under the ARSO Network of Testing, Metrology and Instrumentation Centres (ARSO-TMICNET)**

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## **0 INTRODUCTION**

- 0.1 One of the criteria for membership of ARSO-CERT is testing capability. Although this criterion is mentioned in article 3.3.5 of the ARSO-CERT Rules, the detailed provisions for this requirement are provided in the Rules for Assessment and Accreditation of Testing and Measurement Laboratories under the ARSO Network of Testing, Metrology and Instrumentation Centres (ARSO-TMICNET). Hence assessment of testing laboratories is organized under the framework of ARSO-TMICNET.
- 0.2 ARSO-TMICNET was developed by ARSO to enhance the measurement capability of the African countries through co-operation and sharing of their testing and measurement facilities. It is the regional metrology system which will be responsible for dissemination of measurement standards and lay the foundation for calibration and testing services throughout the continent.

## **1 BRIEF ACCOUNT OF ARSO-TMICNET**

- 1.1 The ARSO Network of Testing, Metrology and Instrumentation Centres is governed by its Constitution and two rules which regulate its activities concerned with accreditation of testing and measurement laboratories, and calibration of measurement standards.
- 1.2 The Constitution of ARSO-TMICNET outlines the objectives and functions of the network, prescribes the conditions for membership, defines the policy organs, sets out the duties, obligations and privileges of members of the network and provides for organization of two technical activities concerned with laboratory accreditation and calibration of measurement standards. It also provides for issuing of guides and directives for further development and operation of ARSO-TMICNET.
- 1.3 Membership of ARSO-CERT is at two levels, that is, national and associate memberships. National membership is open to member States through their National Standards Bodies (NSBs). The NSB shall have established its own testing or metrology facilities or developed a network of such facilities. Associate membership is for African regional or sub-regional bodies. It is pertinent to point out that unlike ARSO-CERT, there is no necessity for assessment of member States facilities for membership of ARSO-TMICNET. It is only when the member State applies for accreditation that assessment will be conducted.
- 1.4 In compliance with articles 8 and 9 of the ARSO-TMICNET Constitution, the following rules and procedures have been formulated:
  - a) Rules for Assessment and Accreditation of Testing and Measurement Laboratories;
  - b) Procedures for Transfer, Calibration and Comparison of Measurement Standards.

The Rules for Assessment and Accreditation of Testing and Measurement Laboratories prescribe criteria for assessing the technical competence of testing and measurement

laboratories. The Procedures for Transfer, Calibration and Comparison of Measurement standards lay down procedures to be followed when standards are forwarded for calibration or when comparison of standards are being made amongst members of the network including corresponding administrative and financial arrangements.

## **2 ACCREDITATION OF TESTING LABORATORIES**

### **2.1 General**

Under ARSO-CERT Rules, the testing capability of the NSB or its outside contractors, shall be assessed in accordance with the ARSO Rules for Assessment and Accreditation of Testing and Measurement Laboratories.

### **2.2 Rules for Assessment and Accreditation**

The detailed criteria for assessing the testing capability of an NSB or outside contractor are contained in article 4.3 of the Rules of ARSO-TMICNET. The main criteria prescribed in these rules relate to:

- a) Laboratory organization
  - legal identity
  - organization and management
- b) Laboratory staff
- c) Approved signatories
- d) Laboratory equipment
- e) Calibration of equipment
- f) Laboratory practice
  - control of staff
  - test methods and procedures
  - laboratory records system
  - test reports
  - laboratory accommodation and environment
  - laboratory quality manual.

In addition to the above, provisions have also been made for:

- (i) Panel of Assessors
- (ii) the Assessment Report
- (iii) Decision on Accreditation
- (iv) Post-Accreditation Requirements
- (v) Confidentiality
- (vi) Accreditation fields

## **3 ASSESSMENT PROCEDURE**

The procedure for assessment of the testing capability of NSBs has not yet been formulated but it will be along the lines outlined below.

### **3.1 Accreditation criteria**

- 3.1.1 The accreditation criteria against which the competence of a testing laboratory is evaluated by ARSO shall be the Rules for Assessment and Accreditation of Testing and Measurement Laboratories issued under ARSO-TMICNET.
- 3.1.2 ARSO shall prescribe additional technical criteria particularly those specific to a test or a type of tests.
- 3.1.3 These general and specific technical criteria shall be published and made available on request.

### **3.2 Scope of accreditation**

- 3.2.1 The scope of accreditation shall be unambiguously defined by reference to one or several tests or types of tests where relevant to products. To this end, tests shall be defined as precisely as possible by reference to the products submitted to the test, the characteristics or performance measured and the test methods used.
- 3.2.2 The test methods used for carrying out a specific test for which an accreditation shall be granted shall be defined by a standard or a fully documented procedure.

### **3.3 Application for accreditation**

- 3.3.1 A duly authorized representative having assigned responsibility for the applicant laboratory NSB shall be required to sign an official application form, in which:
  - a) The scope of the desired accreditation is defined;
  - b) The applicant declares awareness of the manner in which the accreditation system functions;
  - c) The applicant agrees to fulfill the accreditation procedure, especially to receive the assessment team;
  - d) The applicant agrees to comply with the criteria for accreditation.
- 3.3.2 A detailed description of the accreditation procedure and a document describing the rights and duties of accredited laboratories shall be given to applicant laboratories.
- 3.3.3 Additional relevant information shall be provided to applicant laboratories on request.

### **3.4 Accreditation process**

#### **3.4.1 Summary**

The accreditation process shall include:

- a) The gathering of information needed for the evaluation of the applicant laboratory;

- b) The appointment of one or more assessors to assess the applicant laboratory;
- c) The on-site assessment of the applicant laboratory;
- d) The review of all evaluation material collected;
- e) The decision, if any, to grant accreditation to the applicant laboratory with or without conditions and the definition of the scope of that accreditation or to refuse accreditation to the applicant laboratory.

#### *3.4.2 Information required for assessment*

The following information shall be provided by the applicant laboratory prior to the on-site assessment:

- a) The general features of the applicant laboratory (corporate entity; name, address, legal status, human and technical resources);
- b) General information concerning the laboratory covered by the application, such as primary function, relationship in a larger corporate entity and physical location of laboratories involved;
- c) For every technical entity concerned, the list of the tests for which accreditation is desired;
- d) Names and titles of persons listed as being responsible for the technical validity of test reports;
- e) Description of the internal organization and quality system used by the applicant laboratory to give confidence in the quality of its testing services by providing its quality manual and where relevant, main quality plans and evidence of traceability of measurements to national or international standards;
- f) Examples of the test reports that the applicant laboratory plans to issue, if it is accredited.

The information gathered shall be used for the preparation of on-site assessments, and shall be treated with appropriate confidentiality.

#### *3.4.3 Appointment of the assessors*

The applicant laboratory shall be provided with the names(s) of assessor(s) appointed to carry out the on-site assessment at least eight weeks in advance of the assessment.

The mandate given to the assessors shall be clearly defined and made known to the applicant laboratory.

#### *3.4.4 On-site assessment*

The applicant laboratory including all the technical entities covered by the application shall be subjected to an on-site assessment by assessors and ARSO staff. The assessment team shall provide ARSO with all relevant information concerning the ability of the applicant laboratory to comply with the accreditation criteria and possible additional technical criteria including those which may come about as the result of proficiency testing.

A report on the outcome of the assessment shall be brought to the applicant laboratory's notice. The applicant laboratory shall be invited to present its comments on this report and if requested, to comment on the corrective actions taken, or planned to be taken within a definite time.

#### **3.4.5** *Review of assessment documentation*

The application form completed by the laboratory, the information gathered during the assessment, the report on the outcome of the assessment, the comments from the applicant laboratory and any other related information received shall all be reviewed by ARSO.

The aim of this review is to determine whether or not the information gathered indicates that the applicant laboratory complies with the accreditation criteria and possible additional technical criteria.

#### **3.4.6** *Decision on accreditation*

The decision as to whether or not to accredit a laboratory shall be taken by ARSO on the basis of the result of the review made according to sub-clause 2.3.4.5.

Any decisions shall be formulated in writing. The accreditation may be limited in time and accompanied by certain terms and conditions.

Any decision to refuse or limit the scope of accreditation shall be communicated to the laboratory concerned with recommendations for remedial action.

### **3.5** **Assessors**

#### **3.5.1** *Competence of assessors*

The assessors or the assessing team appointed to assess a testing laboratory shall:

- a) Be familiar with the accreditation criteria and possible additional technical criteria and with the relevant accreditation procedures;
- b) Have a thorough knowledge of the relevant assessment method and assessment documents;
- c) Be technically conversant with the specific tests or types of tests for which accreditation is desired;
- d) Be able to communicate effectively;
- e) Be free of any interest that might cause assessor(s) to act in other than an impartial confidential or non-discriminatory manner.

### **3.5.2 Records**

ARSO shall maintain an up-to-date register of assessors consisting of:

- a) Name and address;
- b) Position in employer's organization;
- c) Educational qualification and professional status;
- d) Work experience;
- e) Training in Quality Assurance, assessment and calibration;
- f) Experience in testing laboratory assessment and field of competence;
- g) Date of most recent updating.

### **3.5.3 Procedures for assessors**

Assessors shall be provided with a current set of procedures giving assessment instructions and all relevant information on accreditation arrangements.

## **3.6 Assessment method**

3.6.1 A description of the assessment method used to verify the compliance of the applicant laboratory with the accreditation criteria and possible additional technical criteria shall be published, periodically updated, and made available to all interested parties.

3.6.2 To ensure that a comprehensive and correct assessment is carried out, each member of an assessment team shall be provided with appropriate documents, such as worksheets or check-lists.

## **3.7 Assessment report**

As soon as possible after an assessment, the assessment team shall prepare and forward to ARSO a written report covering the assessment. A copy, a summary or appropriate parts of that report shall be forwarded to the applicant laboratory.

This report shall follow a model established by ARSO. It shall include as a minimum:

- a) The names of the assessors;
- b) The names and addresses of the laboratories assessed;
- c) The scope of the accreditation sought;
- d) Information on the technical qualification, experience and authority of the relevant staff and especially the persons responsible for the technical validity of test reports;
- e) Comments on the adequacy of the internal organization and procedures of the applicant laboratory to give confidence in the quality of its test or measurement services;

- f) Information of any proficiency testing performed by the applicant laboratory, the results of proficiency testing and the use of these results by the laboratory;
- g) Comments on the presentation of test reports;
- h) Recommendation on officers to be designated as approved signatories;
- i) Comments on the qualification of the laboratory for accreditation;
- j) Comments on the actions taken to correct any non-compliances identified at previous assessments.

### **3.8 Proficiency testing**

ARSO may, where judged appropriate, require testing laboratories to participate in proficiency testing. Proficiency testing shall be organized under the auspices of ARSO-TMICNET.

If the results of participation in the required proficiency testing are unsatisfactorily, the granting or maintenance of accreditation shall be reconsidered. However, an accreditation shall not be granted or maintained only on the basis of the results of proficiency testing.

### **3.9 Surveillance of accredited laboratories**

After a laboratory is accredited, provisions shall be taken at regular intervals to ensure that the laboratory continues to comply with the accreditation requirements.

ARSO shall reassess the laboratory at specified intervals not exceeding three years.

Any decision to terminate or suspend accreditation or to curtail the scope of accreditation shall be taken after the laboratory concerned has had the possibility of a hearing.

### **3.10 Accreditation for additional tests**

ARSO shall have written rules of procedures for the assessment of laboratories applying for accreditation of additional tests.

When an accredited laboratory applies for assessment of a technical entity not previously accredited, a full assessment of this entity shall be conducted.

### **3.11 Accredited laboratory test report**

In general, an accredited laboratory shall be allowed only to refer to its accreditation in test reports or products for which accreditation is held.

In some circumstances, however, ARSO may permit the laboratory to include in such reports the results of tests for which accreditation is not held provided that the results to which accreditation does not apply are identified in a clear and unambiguous manner.

Where a test or part of a test is subcontracted, this shall be clearly defined in the test report.

### **3.12 Subcontracting by accredited laboratories**

ARSO shall allow the NSB to subcontract accredited test work only when the subcontractor holds an accreditation for the relevant tests under a National Accreditation scheme.

In exceptional cases, however, ARSO may allow subcontracting of accredited test work to non accredited laboratories, but in this case the NSB shall take all reasonable steps to ensure that the laboratory subcontracting the work:

- respects the relevant requirements of the Rules for Assessment and Accreditation of Testing and Measurement Laboratories issued under ARSO-TMICNET;
- clearly makes the distinction in the test report between the test work it has carried out and the subcontracted work.

The subcontracted test work shall be a minor part of the overall work performed by the subcontracting accredited laboratory, which shall assume full responsibility for any subcontracted test work.

## **4 NATIONAL NETWORK OF TESTING, METROLOGY AND INSTRUMENTATION CENTRES**

- 4.1 The Rules of ARSO-CERT make provision for assessment and accreditation of outside bodies carrying out testing for the NSB. Article 3.3.5.1.2 of the Rules states that “In cases where the NSB’s testing work is carried out by an outside body, the NSB shall, assess and accredit the outside organization according to the ARSO Rules for

Assessment and Accreditation of Testing and Measurement Laboratories”. To be able to use the services of outside bodies, the NSB should establish a national laboratory accreditation scheme. In line with ARSO-TMICNET, this accreditation scheme could conveniently cover both testing and calibration laboratories.

- 4.2 Regulations would be required to bring the national measurement accreditation scheme into being. These regulations could be made under the National Standards or Measurement Law as appropriate, and should cover the same provisions as the Rules for Assessment and Accreditation of Testing and Measurement Laboratories.

## **5 CONCLUSION**

Product testing is an integral part of certification. Member States should therefore develop the necessary laboratory facilities and establish national laboratory accreditation schemes to regulate activities in this field. The national accreditation scheme should then participate actively in the regional activities of ARSO-TMICNET.

## **REFERENCES**

- I** EN 45001 General criteria for the operation of testing laboratories
- II** EN 45002 General criteria for the assessment of testing laboratories
- III** EN 45003 General criteria for laboratory accreditation bodies
- IV** ISO/IEC Guide 25, General requirements for the technical competence of testing laboratories
- V** ISO/IEC Guide 38, General requirements for acceptance of testing laboratories.

## **PAPER IV**

### **The Quality Manual**

**By**

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## **0 INTRODUCTION**

- 0.1** A primary concern of any company or organization is the quality of its products and services. In order to be successful, an organization must offer products or services that meet a well defined, need, use or purpose, satisfies customers' expectations, comply with standards or regulations and at reasonable cost. In order to meet these objectives, the organization needs to organize itself in such a way that the technical, administrative and human factors affecting the quality of its products and services will be under control. A quality management system should therefore be developed and implemented for the purpose of accomplishing the objectives set out in the organization's quality policies.

It is now normal practice for all organizations to institute formal quality control systems to control their operations. Under the ARSO Certification System (ARSO-CERT) therefore, the National Standards Bodies (NSBs), their Outside Contractors and Producers, who offer services or engage in production, are expected to develop quality management systems to ensure quality of their services and products. This requirement has been variously referred to in the ARSO Rules as the need for proper documentation of the structure, responsibilities, procedures etc. of the NSBs. In a few cases, the criteria actually refer to a Quality Manual. Hence, a Quality Manual (document) stating, the quality policy, quality system and quality practises of the NSB must be produced for use of the NSB's staff. The quality system is the organizational structure, responsibilities, procedures, processes and resources for implementing quality policy.

- 0.3** For assessment purposes, proof of the documentation referred to in paragraph 0.2 is required. Since this documentation usually comes in the form of a Quality Manual, NSBs should be in a position to produce this manual when requested to do so.

## **1 CONTENT OF THE QUALITY MANUAL**

- 1.1** The Quality Manual should cover the essential elements of the Certification System as prescribed in the Rules of ARSO-CERT. These are:

- (i) Organization and Structure of NSB;
- (ii) National Certification System;
- (iii) Inspection Capability;
- (iv) Sampling Capability;
- (v) Testing Capability.

- 1.2** Further information on the coverage of the manual is given in EN45011, General criteria for certification bodies operating product certification. These are:

- (i) A quality policy statement;
- (ii) Brief description of the legal status of the Certification Body;
- (iii) A statement of the organization of the Certification Body, including details of the governing board, its constitution, terms of reference and rules of procedures;
- (iv) Names, qualifications, experience and terms of reference of the senior executive and other certification personnel, both internal and external;
- (v) Details of training arrangements for certification personnel;

- (vi) An organization chart showing lines of authority, responsibility and allocation of functions stemming from the Senior Executive;
- (vii) Details of the documented procedures for assessing initial inspection and testing and audit product testing;
- (viii) A general statement on the range of testing facilities appropriate to its activities;
- (ix) Details of documented procedures for surveillance of licensees;
- (x) A list of its subcontractors and details of the documented procedures for assessing and monitoring their competence;
- (xi) Details of appeals procedures.

1.3 Other sources of information are the ISO/IEC Guides and the ISO Quality Assurance Standards, the ISO 9000 series. Some of the ISO/IEC Guides are:

- ISO/IEC 39, General requirements for the acceptance of inspection bodies;
- ISO/IEC 40, General requirements for acceptance of certification bodies;
- ISO/IEC 56, An approach to the review by a certification body of its own quality system.

1.4 By far the most thorough covered field where Quality Manuals are concerned is laboratory testing. Hence, it might be advisable to approach the task of developing a Quality Manual by studying the quality manual of a testing or measurement laboratory for which a practical guide exists. ISO Guide 49, Guidelines for development of a Quality Manual for a testing laboratory is available, but the best choice of a guide is M16, the NAMAS Guide for Preparation of a Quality Manual under the National Measurement Accreditation Service of the United Kingdom. The contents of a suggested Laboratory Quality Manual for use under NAMAS are given in table 1.

**Table 1: Contents of a Laboratory Quality Manual**

<b>1</b>	<b>QUALITY POLICY</b>
1.1	Quality Policy Statement
1.2	Accreditation and Approval Bodies
<b>2</b>	<b>QUALITY SYSTEM</b>
2.1	Aims and Form of Quality System
2.2	Quality Manual
2.3	Quality Management
2.4	Documentation
<b>3</b>	<b>ORGANISATION AND MANAGEMENT</b>
3.1	Organisation
3.2	Organisation Charts
3.3	Management – Senior Staff
3.4	Management - General
3.5	Administrative Procedures
3.6	Staff - Qualifications and Training

<b>4</b>	<b>QUALITY AUDIT AND QUALITY SYSTEM REVIEW</b>
4.1	Purpose
4.2	Responsibility
4.3	Implementation
4.4	Planning and Documentation
4.5	Quality Control Systems
<b>5</b>	<b>EQUIPMENT</b>
5.1	Calibration and Testing Equipment
5.2	Operation and maintenance of Equipment
5.3	Equipment Records
5.4	Authorisation for use
5.5	Monitoring
<b>6</b>	<b>MEASUREMENT TRACEABILITY AND CALIBRATION</b>
6.1	Policy
6.2	Uncertainty of measurement
6.3	Calibration
6.4	Measurement audits and interlaboratory Comparisons
6.5	Calibration Programme and Records
<b>7</b>	<b>METHODS AND PROCEDURES FOR CALIBRATIONS/TESTS</b>
7.1	Policy and Scope
7.2	Availability
7.3	Documentation of Methods and Procedures
7.4	Integrity of Data
7.5	Uncertainty of Results
<b>8</b>	<b>LABORATORY ACCOMMODATION AND ENVIRONMENT</b>
8.1	Accommodation and Conditions
8.2	Records
8.3	Access
8.4	Housekeeping
<b>9</b>	<b>HANDLING OF CALIBRATION/TEST ITEMS</b>
9.1	Receipt and Handling of Items
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9.4	Disposal
<b>10</b>	<b>RECORDS</b>
10.1	System
10.2	Information Recorded
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10.4	Retention
<b>11</b>	<b>CALIBRATION CERTIFICATES, TEST REPORTS AND TEST CERTIFICATES</b>
11.1	Policy
11.2	Authorisation

- 11.3 Use of Namas Logo
- 11.4 Supplementary Certificates/Reports
- 11.5 Validity of Certificates/Reports
- 11.6 Transmission of Results
  
- 12 HANDLING OF COMPLAINTS AND ANOMALIES**
- 12.1 Policy
- 12.2 Procedures
- 12.3 Records
- 12.4 Audits
  
- 13 SUB-CONTRACTING OF CALIBRATIONS/TESTS**
- 13.1 Policy
- 13.2 Register
- 13.3 Reporting
  
- 14 OUTSIDE SUPPORT SERVICES AND SUPPLIES**
- 14.1 Policy
- 14.2 Records
  
- 15 SITE SECURITY**
- 15.1 Security of Laboratory Premises
- 15.2 Responsibility
  
- 16 SITE TESTING**
  
- 17 APPENDICES [TYPICAL EXAMPLES (NOT included in this document)]**
- 17.1 SCHEDULE OF ACCREDITATION (or list of calibrations/tests for which accreditation is sought)
- 17.2 SITE PLAN
- 17.3 COPY OF INDEX FOR EACH SUPPORTING DOCUMENT
- 17.4 QUALITY AUDITS - (Check list, report forms and programme)
- 17.5 SAMPLE CERTIFICATES/REPORTS

With all these pieces of information NSBs should be able to prepare their own quality manuals.

## **2 PREPARATION OF THE QUALITY MANUAL**

- 2.1 A Committee should be set up to prepare the Quality Manual. The work of the Committee could conveniently be based on drafts from the various units or departments responsible for specific aspects of certification such as the testing laboratory, quality control and inspection, and management. This Committee should be a standing Committee which should also be responsible for reviewing the manual periodically. The Committee should be serviced by the office of the Quality Manager.
  
- 2.2 It should be noted that the manual should contain mandatory instructions for the performance of the various tasks as opposed to descriptions of how these tasks are normally carried out.

### **3 PRESENTATION OF THE QUALITY MANUAL**

3.1 The recommended format for presentation of the Quality Manual is given in Annex 1. The NAMAS Guide, M16, gives, adequate information on the format and content of the quality manual. Some of the information provided deals with:

- a) The title page;
- b) Amendment page;
- c) Index of Contents;
- d) Mode of pagination.

Each page of the Quality Manual (including appendices, diagrams, tables and forms) should be uniquely identified (such as unique page number in the form of “page of pages”.) The system for page identification should be such as to minimise the risk of undetected omission of current pages and undetected retention of obsolete pages. Examples of the Title Page and Amendment Page are given in Annexes 2 and 3.

3.2 For ease of amendment, the Quality Manual should be presented in a loose-leaf binder.

### **4 IMPLEMENTATION**

4.1 The Quality Manual is useless unless it is implemented. The primary responsibility for the manual rests with the Director of the NSB. He should, however, delegate the responsibility for implementation to a Quality Manager who should be one of the Divisional heads. All the staff involved in certification work should be issued with copies of the manual.

4.2 The Quality Manager advises the Director of the NSB on formulation of quality policy and reports to him on monitoring and reviewing activities in the light of agreed policy. The Quality Manager’s duties also include:

- a) Responsibility for planning, documenting and implementing all quality assurance procedures;
- b) Initiating quality procedures and motivating all departments to accept and implement policies;
- c) Reviewing overall quality systems, advising on subsequent action and recording the results.

### **5 CONCLUSION**

A modern management technique is the institution of quality management systems by enterprises (whether service or production enterprises) in order to ensure judicious use of their resources. The National Standards Bodies who provide services in standardization and related fields have no choice but to follow modern practice in order to upgrade the quality of their services. In doing this, they will also be satisfying the requirements of the ARSO Rules.

**ANNEX 1**

	SECTION
	pageof
	IssueNo.
TITLEOFSECTION	IssueDate
	Issued

## ANNEX 2

<b>LABORATORY QUALITY MANUAL (NAMAS GUIDANCE NOTES, M16)</b>  Name of Laboratory	<b>TITLEPAGE</b>
	Issued by NAMAS
	Issue Date July 1989
TITLE OF SECTION	To All Manual Holders
<b>TITLE PAGE</b>	Copy No.

There should be a title page which:

- is the first page of the Quality Manual
- bears the title of the document and the name and address of the Laboratory
- identifies the individual under whose authority the Quality Manual is issued

This individual must be a senior executive, who has line management responsibility for the Laboratory and who is at the highest level of management at which decisions are taken on Laboratory policy and resources. The statement must be authenticated by the signature, and legal name and position of the executive concerned.

- uniquely identifies the current version of the Quality Manual in the form of date of issue and edition or modification number
- uniquely identifies the copy of the Quality Manual, in the form of a copy number and holder of the copy

An example of the format is shown below:

### Title Page

<b>QUALITY MANUAL</b> for (Name and address of Laboratory) This Manual is issued under the authority of ..... (Name and position of Chief Executive)	
Issue Date	
Issue No.	
Copy No.	
Holder	



## PAPER V

### Basic infrastructure for a national certification programme

By

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### Contents

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## 0 INTRODUCTION

A National Standards Body (NSB), could be established to carry out several tasks related to standardization. These include:

- formulation of standards (documents)
- quality control and testing, including consultancy
- metrology, including applied research
- **certification (product, process, service, quality system)**
- documentation service.

When an NSB has the responsibility for all the activities mentioned above, it is practising the integrated approach to standardization. Integrated standardization is more commonly practiced in the developing countries where most of the NSBs are public institutions . Mostly, the legislation (Standards act) establishing the NSB specify its various functions, including the certification function. Certification is recognised globally as a major way of implementing standards and upgrading the quality of production and service. It is important therefore, for an NSB to lay emphasis on the certification function right from its establishment.

The basic infrastructure needed in order to organize and implement the certification programme of the NSB include:

- appropriate legislation, regulations or procedures
- standards (documents)
- testing facilities
- certification and/or mark of conformity
- specific rules (for certification schemes)
- knowledgeable, competent and honest professional staff.

## 1 STANDARDS ACT, DECREE OR LAW

The Standards act is the legal document establishing the National Standards Body (NSB). As was indicated in the introduction, the Standards act might contain detailed pronouncements on the various activities to be covered by the NSB. In other cases, these activities like certification are covered by separate government regulations. It does not matter how the documentation is done. What matters is the content of the document(s).

The portion of the Act dealing with certification provides the legal framework for the operation of certification activities by the NSB. It usually stipulates on the following:

- type of certification system
- use of the Standard/Certification mark
- authority of the Minister, Council/Board and Chief Executive of the NSB with respect to certification
- rights and limitations of inspectors
- right to appeal in case of dispute with NSB on certification matters, etc.

Experiences show that all requirements including the practicability of issued Act or Decree might not be foreseen at the initial stage. The Act in most cases therefore, gives the Minister or Council the power to issue further regulations, guides or instructions in

accordance with the Act for the development and operation of the national certification.

## **2 GENERAL RULES (REGULATIONS, PROCEDURES, etc.)**

The authority to establish general rules for certification is usually derived from the Act or Decree (See clause 1). The rules provide details on the organization and execution of the certification function such as procedures for:

- dealing with an application for certification (examination, verification, decision)
- surveillance if licence is granted
- guidance against misuse of the licence or mark including corrective actions
- making an appeal against the ruling of the NSB
- maintaining confidentiality of information by staff of NSB and agents if any
- dealing with complaints
- the right of licensees including right on publicity
- modification of licenced product, quality system, process or method of service
- modification of standards, rules, or procedures for licencing
- renewal and extending a licence
- payment of fees, etc.

The NSB should strive to make the rules as comprehensive as possible. This would ensure orderly and controlled management of the certification system and provide continuity in the operation of the different certification schemes.

## **3 STANDARDS (DOCUMENTARY)**

Standards form the basis for certification. The NSB should commence the writing and implementation of standards from its inception. The standards should be discussed and accepted through consensus by committees, made up of representatives of various interested parties. A draft standard should be given enough publicity by circulating it for possible comments to all interested parties such as producers, service organizations, consumer societies, government ministries, large purchasing organizations, institutions of higher learnings, etc. It should be made clear to all these parties that the draft standard when finally approved, is to be used for certification. The comments received should be considered by the committee before the standard is approved. Available national, regional and international standards should be considered for adoption “as is”.

The requirements for product, process, service and quality system should be clearly specified in their standards. The standards must be written so as to result in accurate and uniform interpretation by the users of the standards. For a product standard, the tolerances for all characteristics and well defined test methods based on readily available equipment should be specified.

## **4 TESTING FACILITIES**

Inspection, measuring and test equipment are necessary for the operation of a certification programme. For instance, quality control has to be applied to maintain or improve product quality. This involves inspection, sampling, testing, calibration, etc.

An NSB operating certification should therefore, have the capacity and capability to carry out the necessary inspection, testing and measurement activities. This capacity and capability can be developed within or hired from outside the NSB. Laboratories - building, equipment, staffing, etc. - are expensive to set up. NSB's therefore, have to reach a decision on the testing facilities they have to acquire within the NSB and the facilities that have to be engaged from outside. It is important, however, for the NSB to acquire **at least** laboratories and equipment for simple tests and use outside facilities including factory laboratories for other tests that might be required for certification.

In cases where outside facilities are used, these facilities like the laboratory has to meet some specified criteria. This means that the NSB has to assess and accredit any outside facility before use, based on specified criteria.<sup>1)</sup>

Of particular importance is the use of factory laboratories. For instance:

- (a) How do we handle a situation where there are competing products and one is brought for testing at the others factory?
- (b) How do we handle a situation where a licensee's or applicant producer's laboratory is used for testing its product?

The above instances require special attention on top of assessment and accreditation suggested before.

For case (a), the product must be disguised short of any action that might affect the result of the required test(s).

For both cases, the NSB staff should supervise the testing. This includes superintending, controlling and accepting the responsibility for the test data generated. This requires NSB staffs with requisite training and experience in relevant test methods and test or measuring equipment.

## **5 CERTIFICATE AND/OR MARK OF CONFORMITY**

ISO/IEC Guide 2 - 1986 offers the following definitions:

**Certificate of conformity:** Document issued under the rules of a certification system, indicating that adequate confidence is provided that a duly identified product, process or service is in conformity with a specific standard or other normative document.

**Mark of conformity:** Protected mark, applied or issued under the rules of a certification system, indicating that adequate confidence is provided that the relevant product, process or service is in conformity with a specific standard or other normative document.

For an NSB, the conformity certificate or mark is prescribed in the legislation establishing the national certification (See clause 1). The mark or certificate is therefore legally protected through the legislation. In some countries, registration of the mark with

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1) See ISO/IEC Guide 25 and ARSO Rules for Assessment and Accreditation of Testing and Measurement Laboratories.

the relevant government institution might still be required in order to fully protect its proprietary right.

Every licence granted to a producer by the NSB to use the certificate and/or mark of conformity should include a clear identification of the NSB and the licensee. A description of the certified subject, as well as conditions for use of the mark or certificate should also be given.

For product certification, the mark should be applied directly on the smallest unit of product, except when this is not possible due to the nature or size of product. For example, for safety match, and tooth pick, the mark might be applied on the smallest package. To avoid confusion, one mark supplemented by relevant texts when necessary is preferred. Example of such supplementary texts are:

- (i) Number of standard (ARS .....);
- (ii) Edition of standard (1, 2, ....., or year);
- (iii) Grade of product;
- (iv) Safety only;
- (v) Identification of licensee (Name, code, etc.).

For other types of certification, the mark could, for example, be used in secondary packages, letter heads, sign posts, catalogues, advertisements, certificates, etc.

The certificate of conformity or licence on the other hand is used in the company's business, like when making a tender, when entering into agreements concerning acceptance tests to be dispensed with or simplified, in advertisements, in disputes concerning product liability to stress that products are manufactured with appropriate care, in order confirmations, etc.

The NSB should however, device a system of monitoring in order to detect incorrect and/or unlawful use of the certificate and/or mark of conformity and take corrective action.<sup>1)</sup> Actions which could be taken include:

- warning )
- suspension ) for licence holders;
- withdrawal )  
and
- legal action; for licence and non-licence holders. Legal action can be protracted sometimes.

Recall of product, removing the mark, rebuilding the product, scraping, etc. are possible corrective actions the producer should be made to undertake.

Publicity of the misuse in serious cases should be considered by the NSB and could help to prevent such future misuse.

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<sup>1)</sup> See ISO Guide 27

## 6 SPECIFIC RULES (FOR CERTIFICATION SCHEMES)

6.1 Standards are the main documents for assessing a company's quality system, product, process or service for certification (See clause 3). However, standards, most of the time, leave a few questions about the certification requirements unanswered including for example:

- how the conformity mark should be combined with the other markings
- some special requirements for production and quality control
- inspection, testing and surveillance **obligations** of the NSB and company.

It is this gap in the certification process that specific rules (also called scheme of supervision and control, quality assessment schedule, etc.) are prepared to fill. Specific rules could be prepared for:

- individual companies
- industrial sector.

The individual company scheme is prepared by the NSB in co-operation with the company, while in the industrial sector schemes, the NSB has to seek a wider consensus from the particular industry, the technical committee, large purchasers and other associated interests. The individual company scheme is therefore, more flexible while the industrial sector schemes guarantee uniformity. The approach could be different for each country.

### 6.2 Examples

6.2.1 For producing roofing tiles (small scale business) with automatic feeding and mixing of the main raw materials of cement, sand and water, the specific rules could include the following (examples only) **apart from the requirements in the standard:**

- i) A written quality policy statement by the management;
- ii) Incoming materials: Cement (water test only) and sand (sieving only) tested per delivery and records kept;
- iii) Verification of sand and cement balance - twice a year;
- iv) Verification of water feeder and mixing time - twice a year;
- v) To call a day's production a batch;
- vi) Keep each batch of tiles .... days before delivery;
- vii) All moulds should be numbered;
- viii) First produced tiles from new moulds to be measured (dimensional);
- ix) The certification mark to be stamped in the tiles with white colour for the first year. Engraving in the mould after one year;
- x) Surveillance to be carried out by NSB twice a year;
- xi) Factory testing facility to be used by NSB for routine impact and crush tests during surveillance.

#### 6.2.2 *Galvanized corrugated steel sheets*

In addition to the requirements in the standard, the specific rules might require (examples only):

- i) A written quality policy statement by the management;
- ii) Purity of zinc checked for each delivery - records;

- iii) Base metal - steel sheets - randomly checked for thickness for every delivery - records;
- iv) Factory workers to wear protective materials;
- v) Temperature of zinc bath recorded every \_\_\_\_\_ min;
- vi) Mass of zinc coating to be determined, one sheet per every \_\_\_\_\_ produced - records;
- vii) \_\_\_\_\_ number of galvanized corrugated sheets to be checked visually for flaking of zinc coating, twist, buckle and other surface defects per every \_\_\_\_\_ produced;
- viii) The grade, dimension, nominal mass of zinc coating, certification mark, \_\_\_\_\_ shall be stamped on each sheet with black colour;
- ix) Surveillance to be carried out by NSB four times a year;
- x) \_\_\_\_\_ number of sheets to be sampled by NSB from production for independent tests.

## **7 STAFF REQUIREMENTS**

The staff employed in certification activities should have clearly defined and documented duties and authorities. The staff should be technically qualified to perform their functions. Training in certification and allied subjects is needed in order to maintain or upgrade the skills of staff. Training could be impacted on the job or arranged externally.

The importance of recruiting staff members with high moral is emphasized. This is to forestal impartiality which might arise through undue influences. The staff of any test or inspection house used by the NSB (See clause 4) shall meet the same requirements as that of the NSB staff.

Of particular importance in the certification process is the issue of “separation of authority”. Inspection, testing and decision to grant a licence might not be entrusted to the same individual. This will add more objectivity to the certification process especially in handling of application for licence. The practice in some countries is to have the Council or Board take the final decision on granting of licence. This could be useful, but from experience, could also lead to delays not only in licensing but also in other activities like approving standards, etc. In some cases, a special committee is appointed to deal solely with certification. The benefits of course are more thorough discussions and accelerated handling of certification approvals and other certification issues including appeals against the decision of the NSB not to grant licence to an applicant company. The financial implication of establishing such committees should however be carefully considered.

## **8 CONCLUSION**

For a successful implementation of an NSB certification programme support and information are vital elements. Support is required from the Government, producers and large purchasers. Government departments should demand for certified products, service and quality system from companies providing products or service to government. Where appropriate, these could be written into legislation, directives, etc. The NSB should use every available opportunity to promote its certification. These include:

- (i) During drafting of standards (wide circulation, use in certification, etc.);

- (ii) Approaching top management of companies (certification and other activities explained);
- (iii) Using consumer union(s);
- (iv) General media publicity (paper, magazines, radio, conferences, trade fairs, standards day, seminars, etc.);
- (v) Producers advertising with references to the licence, certificate or mark of conformity.

## **REFERENCES**

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## PAPER VI

### Assessment of a Factory for the Award of the ARSO Mark

By

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## **PREFACE**

This paper describes the steps to be taken, and the considerations to be given, when a factory is assessed by a National Standards Body (NSB), as a preliminary to the granting of approval to use the National Mark of Conformity in combination with the ARSO Certification Mark.

It traces the steps from the time that an application is made to the National Standards Body for a licence, which grants the applicant the right to use a Mark of Conformity for its products, through the process of assessment, to the factory's maintenance of its quality system.

## **1. TYPE OF CERTIFICATION SYSTEM**

The type of Certification System operated by ARSO-CERT consists of:

- (i) Assessment of the factory quality control system;
- (ii) Initial product testing.

Following acceptance of these two elements, SURVEILLANCE of the factory is carried out by:

- (i) Auditing the factory quality control system;
- (ii) Testing of samples from the factory; and
- (iii) Testing of samples from the open market.

There are GENERAL RULES issued by the National Standards Body, which cover the principles of operation, the configuration of the National Mark of Conformity, the responsibilities of the licensee, the right of appeal and other general matters.

There are also SPECIFIC RULES established by the National Standards Body for each Certification Scheme applicable to a product or group of products, and these spell out the requirements in greater detail.

## **2. APPLICATION FOR A LICENCE**

The application shall be made on a special form which may be obtained on application to the NSB (a National Member of ARSO-CERT). This is a formal document, which identifies the applicant, and specifies a particular product, or group of related products. The application shall cover products from one factory only.

A questionnaire shall be completed by the applicant, and returned with the Application Form. This provides preliminary information on the producer and his capability to control the quality and continuing conformance of his products to the requirements of the relevant standards. It requests information concerning factory organization. It asks for specific details of the procedures/documentation that is used to control the quality system. It requires the applicant to define his QC staff organization, and seeks information regarding their training, reporting and general responsibilities.

The questionnaire also covers such subjects as:

- (i) purchase specifications/materials QA;
- (ii) manufacturing system;
- (iii) maintenance system, for plant and equipment;
- (iv) quality Control system;
- (v) test equipment/instruments, gauges and tools;
- (vi) records and documents relating to compliance with the specification;
- (vii) method of application of the National Mark of Conformity.

Most of this information should be contained in the factory's Quality Manual, but the completed questionnaire will be used by the National Standards Body's assessors during any preliminary visit to the factory, or during the course of the initial assessment.

On receipt of the completed questionnaire, application form and appropriate fee, the National Standards Body will notify the applicant of its acceptance and will provide any additional information that may be required, before processing the application.

### **3. ASSESSMENT OF THE APPLICANT**

The initial assessment of the applicant will fall into two parts:

- a) A detailed assessment of the factory's quality control system, based on the relevant requirements of the ISO Standards.
- b) Initial product testing carried out in accordance with the applicable standards, and the specific rules of the scheme.

#### **3.1 Quality system assessment**

##### **3.1.1 *Initiating the Assessment***

As a basis for planning the assessment the assessor should review for adequacy the applicant's recorded description of the methods for meeting the quality system requirements (such as the Quality Manual or equivalent).

If this review reveals that the system described by the applicant is not adequate to meet the requirements, further resources should not be expended on the assessment until such concerns are resolved to the satisfaction of the NSB, the assessor and, where applicable, the applicant.

##### **3.1.2 *Preparing the Assessment***

###### **3.1.2.1 *Assessment plan***

The assessment plan should be approved by the NSB and communicated to the assessors and applicant. The assessment plan should be designed to be flexible in order to permit changes in emphasis based on information gathered during the assessment and to permit effective use of resources. The plan should include:

- the assessment objectives and scope;
- identification of the individuals having significant direct responsibilities regarding the objectives and scope;
- identification of reference documents (such as the applicable quality system standard and the applicants Quality Manual);
- identification of assessment team members;
- the language of the assessment;
- the date and place where the assessment is to be conducted;
- identification of the organizational units to be assessed;
- the expected time and duration for each major assessment activity;

- the schedule of meetings, to be held with applicant management; confidentiality requirements;
- assessment report distribution and the expected date of issue.

If the applicant objects to any provisions in the plan, such objections should immediately be made known to the Lead Assessor. They should be resolved between the Lead Assessor and the applicant, before starting the assessment.

### *3.1.2.2 Assessment team assignments*

Each assessor should be assigned specific quality system elements or functional departments to assess. Such assignments should be made by the Lead Assessor in consultation with the assessors concerned.

### *3.1.2.3 Working documents*

The documents required to facilitate the assessor's investigations, and to document and report results, may include:

- (i) Check-list used for evaluating quality system elements (normally prepared by the assessor assigned to assess that specific element); see 3.1.3.2;
- (ii) Forms for reporting assessment observations;
- (iii) Forms for documenting supporting evidence for conclusions reached by the assessors.

Working documents should be designed so that they do not restrict additional assessment activities or investigations which may become necessary as a result of information gathered during the assessment. Working documents involving confidential or proprietary information shall be suitably safeguarded by the National Standards Body.

## *3.1.3 Executing the Assessment*

### *3.1.3.1 Opening meeting*

The purpose of an opening meeting is to:

- introduce the members of the assessment team to the applicant's senior management;
- review the scope and the objectives of the assessment;
- provide a short summary of the methods and procedures to be used to conduct the assessment;
- establish the official communication links between the assessment team and the applicant;
- confirm that the resources and facilities needed by the assessment team are available;

- confirm the time and date for the closing meeting and any interim meetings of the assessment team and the applicant's senior management;
- clarify any unclear details of the assessment plan.

### 3.1.3.2 Examination

The check lists referred to in 3.1.2.3 should be compiled to cover all the relevant quality system elements of the appropriate part of ISO 9000, as they affect the Specific Rules for the Certification Scheme.

In most cases they will assess the applicant's

- a) Published Quality Policy (4.1.1)\*;
- b) Organization of its quality resources, including the delegation of responsibility and authority, to control the quality system, and the appointment of a management representative as a focal point to liaise with the National Standards Body (4.1.2);
- c) Arrangements to carry out Management Reviews to ensure the continuing effectiveness of the quality system (4.1.3);
- d) Contract review procedure, to resolve any problems before production commences (4.3);
- e) Document control system (4.4);
- f) Purchasing procedures, with its control of sub-contractors (including test laboratories), completeness of purchasing data (4.5);
- g) Control of product identification and traceability (4.7);
- h) Process control (4.8);
- j) Inspection and testing procedures, including receipt and final inspection (4.9);
- k) Inspection, measuring and test equipment - calibration (4.10);
- l) Inspection and test status (4.11);
- m) Control of non-conforming products (4.12);
- n) Corrective action procedures, including the recording and actioning of customer complaints (4.13);
- o) Control of handling, storage, packaging and delivery of the products (4.14);
- p) Retention and preservation of quality records (4.15);
- q) Internal quality audits - a continuing self examination of the quality system (4.16);
- r) Training of all employees associated with the quality system (4.17);
- s) Statistical control system, if applicable (4.18).

Where design of the product is a responsibility of the applicant, the design controls will be checked by the National Standards Body.

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\*) The numbers in brackets refer to the relevant clause of ISO 9002.

### ***3.1.3.2.1 Collecting evidence***

Evidence should be collected through interviews, examination of documents, and observation of activities and conditions in the areas of concern. Clues suggesting nonconformities should be noted if they seem significant, even though not covered by Check Lists, and should be investigated. Information gathered through interviews should be tested by acquiring the same information from other independent sources, such as physical observation, measurements and records.

During the assessment the Lead Assessor may make changes to the assessor's work assignments, and to the assessment plan with the applicant's agreement, if this is necessary to ensure the optimal achievement of the assessment objectives.

If the assessment objectives appear to become unattainable, the Lead Assessor should report the reasons to the applicant.

### ***3.1.3.2.2 Assessment observations***

All assessment observations should be documented. After all activities have been assessed, the assessment team should review all of their observations to determine which are to be reported as nonconformities. The assessment team should then ensure that these are documented in a clear, concise manner and are supported by evidence. Nonconformities should be identified in terms of the specific requirements of the standard or other related documents against which the assessment has been conducted. Observations should be reviewed by the Lead Assessor with the responsible applicant's manager. All observations of nonconformities should be acknowledged by the applicant's management.

### ***3.1.3.3 Closing meeting with applicant***

At the end of the assessment, prior to preparing the assessment report, the assessment team should hold a meeting with the applicant's senior management and those responsible for the functions concerned. The main purpose of this meeting is to present assessment observations to the senior management in such a manner so as to ensure that they clearly understand the results of the assessment.

The Lead Assessor should present observations, taking into account their perceived significance. The Lead Assessor should present the assessment team's conclusions regarding the quality system's effectiveness in ensuring that quality objectives will be met. Records of the closing meeting should be kept.

## ***3.1.4 Assessment documents***

### ***3.1.4.1 Assessment report***

The assessment report is prepared under the direction of the Lead Assessor, who is responsible for its accuracy and completeness.

#### **3.1.4.2 Report content**

The assessment report should faithfully reflect both the tone and content of the assessment. It should be dated and signed by the Lead Assessor. It should contain the following items, as applicable:

- the scope and objectives of the assessment;
- details of the assessment plan, the identification of assessment team members and applicant's representative, assessment dates, and identification of the specific organization assessed;
- identification of the reference documents against which the assessment was conducted (quality system standard, applicant's quality manual, etc);
- observations of nonconformities;
- assessment team's judgement of the extent of the applicant's compliance with the applicable quality system standard and related documentation;
- the system's ability to achieve defined quality objectives;
- the assessment report distribution list.

Any communication made between the time of the closing meeting and the issue of the report should be by the Lead Assessor.

#### **3.1.4.3 Report distribution**

The assessment report should be sent to the applicant by the NSB. Any additional distribution should be determined in consultation with the applicant. Assessment reports containing confidential or proprietary information shall be suitably safeguarded by the National Standards Body.

The assessment report should be issued as soon as possible. If it cannot be issued within an agreed time period, the reasons for the delay should be given to the applicant and a revised issue date established.

#### **3.1.4.4 Record retention**

Assessment documents should be retained by agreement between the National Standards Body and the applicant, and in accordance with any regulatory requirements.

#### **3.1.5 Assessment completion**

The assessment is completed upon submission of the assessment report to the applicant.

#### **3.1.6 Corrective action follow-up**

The applicant is responsible for determining and initiating corrective action needed to correct a nonconformity or to correct the cause of a nonconformity. The assessor is only responsible for identifying the nonconformity.

Corrective action and subsequent follow-up assessments should be completed within a time period agreed to by the applicant in consultation with the National Standards Body.

## **3.2 Initial Product Testing**

### **3.2.1 *Sampling***

The sampling of items for initial testing should be defined in the Specific Rules for the scheme that is being assessed. These Rules should specify the precise selection method of taking samples for inspection and test, in a formalised sampling procedure. The sampling should be carried out by an inspector, or an authorised representative of the National Standards Body. The samples should be representative of the entire line or group of production to be certified, and be made from production tools and assembled using methods established for the production run.

A sample report should be prepared, which indicates the following information:

- a) Name and address of the National Standards Body;
- b) Date of sampling;
- c) Description of samples;
- d) Drawn/purchased/submitted by (how was the sample obtained);
- e) Place of sampling -  
Factory - pre final inspection or post final inspection;  
or  
Open market - stockist or retail;
- f) Address where samples were taken;
- g) Condition of batch/production lot;
- h) Size of batch/production lot;
- j) Number of samples drawn;
- k) Sampling procedure;
- i) Condition of sample(s);
- m) Identification marks on samples (batch No. etc.);
- n) Signature of sampler;
- o) Signature of supplier (where applicable);
- p) Remarks.

### **3.2.2 *Conduct of initial testing***

The samples selected for testing, as defined in 3.2.1 should be tested in accordance with the applicable standards and the Specific Rules of the scheme.

They should be tested in a laboratory which has been accredited in accordance with the Rules of ARSO-CERT. This requirement applies, whether or not the laboratory is owned or contracted to by the National Standards Body.

3.2.2.1 The Work carried out by the Testing Laboratory should be covered by a comprehensive Test Report which accurately, clearly, unambiguously and objectively presents the test results and all relevant information.

3.2.2.2 A Test Report shall include the following information:

- a) Name and address of Testing Laboratory;
- b) A unique serial number of the Test Report;
- c) On each page, a page number, the total number of pages in the Test Report and the serial number of the Test Report;
- d) Name of client, (who submitted the sample?);
- e) Description and identification of the sample, and date of receipt;
- f) An appropriate title for the Test;
- g) Identification of the test specification, method and procedure;
- h) Any deviations, additions to or exclusions from the test specification;
- j) Measurements, examinations and derived results, supported by tables, graphs, sketches and photographs as appropriate, and any failures identified;
- k) A statement of measurement uncertainty (where relevant);
- l) A statement as to whether or not the samples comply with any requirements against which they were assessed;
- m) Signature of officer accepting technical responsibility for the Test Report and date of issue.

3.2.2.3 Particular care and attention should be paid to the arrangement of the Test Report, especially with regard to presentation of the test data and ease of assimilation by the reader. The format should be carefully and specifically designed for each type of test carried out, but the headings should be standardized as far as possible throughout the Testing Laboratory.

3.2.2.4 Corrections or additions to a Test Report after issue shall be made only by a further document marked "Supplement to Test Report, Serial Number" and shall meet the relevant requirements of the preceding paragraphs.

3.2.2.5 The Test Report should be submitted to the applicant, and he should be informed if all the requirements of licensing, with respect to testing, are not being met. He should be notified of those tests in which his application has failed.

3.2.2.6 If the applicant can show objective evidence that remedial action has been taken by him to meet all the requirements within a specified period of time, only the appropriate parts of the initial testing need be repeated.

#### **4. APPROVAL AND LICENSING**

- 4.1 The National Standards Body shall, on the basis of the initial assessment of the applicant's Quality Control system (3.1) and the results of the initial product testing (3.2) assess whether the applicant's quality system and products meet the requirements of the General and Specific Rules.
- 4.2 If the overall assessment of the applicant indicates that he conforms to the requirements of ARSO-CERT, a licence shall be issued for the use of the ARSO\*/National Mark of Conformity for specified products. This licence shall be subject to annual renewal, and the continued maintenance of the conditions relating to the granting of the licence.

#### **5. EXTENDING A LICENCE**

- 5.1 A licence is initially issued to indicate an applicant's compliance with the specified requirements of the General and Specific Rules. This includes the applicant's quality system and a declared range of products (known as the scope).

If the licensee wishes to extend his licence to allow the application of the marks of conformity to additional types of products made in the same factory to the same standard as the products for which a licence is already held, he shall make an application to the National Standards Body on the appropriate form.

- 5.2 Samples will then be requested to determine compliance with the standard(s), and if these tests are successful additional licences will be granted.
- 5.3 If the 'extension of scope' request applies to additional types of products made at the same factory, but to different standards, new applications must be submitted.

#### **6. SURVEILLANCE**

- 6.1 To ensure that a licensee's quality system and products continues to meet the requirements of the relevant standard and the Specific Rules, surveillances are carried out by the National Standards Body.
- 6.2 The surveillance may be carried out by the National Standards Body, or it may appoint an agent to act on its behalf. In such cases the agent shall have the facilities and qualified staff necessary to effectively administer the Rules of ARSO-CERT.
- 6.3 The Surveillance shall, as a minimum requirement, consist of:
- a) Examination of the licensee's quality records;
  - b) Ensuring that the required sampling and testing of the product has been carried out at the specified frequency;

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\*) The NSB must seek the approval of the Secretary-General of ARSO before licence to use the ARSO Mark could be granted.

- c) Determining that appropriate corrective action has been taken in the event of any failure occurring;
- d) Examination of calibration and maintenance records of test and measuring equipment;
- e) Testing of samples collected from the factory and/or the open market, to determine compliance with the Standards and Specific Rules.

6.4 The frequency of surveillances to be carried out for a particular scheme shall be specified in the Specific Rules.

6.5 A formal Surveillance Report will be prepared, and a copy will be provided to the licensee. This Report will detail the results of the surveillance inspection.

## 7. GENERAL

7.1 All other factors affecting the following are covered in the Guide on the National Certification System of National Members of the ARSO Certification System (ARSO-CERT):

- a) Modifications to product;
- b) Use of the National Mark of Conformity;
- c) Publicity by Licensees;
- d) Confidentiality;
- e) Misuse of the National Mark of Conformity;
- f) Corrective action as a result of non-compliance with the requirements;
- g) Implementation of modification of a standard;
- h) Liability;
- j) Disputes;
- k) Renewal of a Licence;
- l) Fees for the use of the Licence.

## PAPER VII

### Administration of the ARSO Mark

By

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## **0 INTRODUCTION**

Certification is not difficult in its principle structure. However, in practice you come across some difficulties. These are best overcome if the certification system is based on a sound foundation in terms of staff, procedure, documentation, etc. In the ARSO Certification System (ARSO-CERT), the need to build up a strict background becomes more imperative. The National Standards Body (NSB) is to do the certification work concerned in each country.

This means that all contacts within the framework of ARSO-CERT in a country will be between the NSB and the producer. ARSO's role is mainly that of coordination, supervision and decision. ARSO will not therefore, be involved in the assessment of producers for the award of the ARSO Mark. However, the reports of such assessments must be communicated to ARSO before a licence to use the Mark is granted or renewed.

ARSO and the NSB therefore, have vital and complimentary roles to play in the regional certification programme. In this context, it is necessary that the legal foundation, procedures, staff duties and instructions, etc, of ARSO-CERT are properly documented and administered in order not to create any ambiguity in the implementation process. This will ensure smooth and progressive operation of the regional certification programme.

## **1 INFORMATION ABOUT ARSO-CERT**

There is no doubt that without publicity and information the operation of ARSO-CERT cannot be accelerated. Information is required in order to stimulate the interest for and understanding of ARSO-CERT by large groups of industries, chambers of commerce, trade organizations and governments. The aims of ARSO-CERT which includes the promotion of quality and export potentials of African products should be addressed to these groups.

In this work on information and publicity, the NSB has a big role to play. The NSB cooperate closely with industries. Some of the current/anticipated export products might have been certified by the NSB. The advantages of having the product certified at the regional level should be presented to the top management of the company. The benefits of increased export within and outside Africa as well as the chance to build up the reputation of the company both internally and externally should not be forgotten.

The movement towards regional integration in Africa should be emphasized. In this connection, the important role of standardization including certification towards the realization of the objectives of the African Economic Community (AEC) should be stressed.

The need to be prepared for the future challenges of an integrated and open African market should be explained. In this regard, the ARSO Mark will be an advantage indicating:

- (a) This product was carefully designed as specified in the African Regional Standard (quality of design); and

- (b) This product was made under well established and certified routines for processing and quality control (quality of conformance).

The production of the above mentioned information material for presentation and distribution is a professional task. Only few NSBs of member States have the capacity and the capability to undertake it. ARSO therefore, has to supply the ideas, printed material, etc. The same information and public relations material should be distributed to member States to support both the national and regional certification programmes.

The Mark could also be promoted by ARSO among the Sub-regional Economic Groupings in Africa like ECOWAS, PTA, etc. The Economic Groupings could act as pressure groups on producers and import-export agencies within their communities. It is on this premise that the Constitution of ARSO-CERT provided for associate membership of ARSO-CERT by Sub-regional Economic Communities in Africa.

At the international level, product information on ARSO-CERT should be disseminated continuously to such organizations like UNCTAD/GATT, ITC, EEC, EFTA, etc.

## **2 ASSESSMENT OF PRODUCERS**

Producers shall apply to national members of ARSO-CERT for the award of the ARSO Mark on a specific product or group of related products made from one factory by completing an:

- (i) Application form (Prepared by NSB - see Guide of ARSO-CERT); and
- (ii) Initial factory assessment questionnaire (Prepared by NSB - see Guide of ARSO-CERT).

The NSB will evaluate the application form and questionnaire and if favourable, immediately arrange to visit the factory to (More details in Guide):

- (i) Assess the quality system in place
- (ii) Sample products for test and evaluate the results of test.

The NSB should present its view on the quality system and product(s) of the factory to the producer and if necessary, continue the factory inspection until it is satisfied.

It should be noted that the producer must have the national certification mark of a national member of ARSO-CERT before it could apply for the ARSO Mark. The conduct of the above mentioned initial inspection and testing is however insisted upon in order to generate fresh data and information necessary for the award of the regional Mark.

It is important to emphasize the need for confidentiality, impartiality and competence in all the certification phases leading to the award of the ARSO Mark. This should be demonstrated by both the NSB and ARSO.

### **3 COMMUNICATION WITH ARSO AND APPROVAL**

If the NSB is satisfied with the product(s) and quality system of the producer, and the product(s) has been certified under the national certification system for not less than one year, the NSB could then proceed to apply to ARSO for the use of the ARSO Mark in combination with the national mark by the producer. The following documents should be made available to the Secretary-General of ARSO (ARSO SG) by the NSB:

- (i) Standard(s) that form the basis for the certification;
- (ii) Specific rules for the certification scheme; and
- (iii) Inspection, sampling and test reports.<sup>1)</sup>

The above documents will be perused by ARSO for conformance to the provisions of the Constitution, Rules and Guide of ARSO-CERT. If favourable, the ARSO SG shall immediately contact the national member giving approval for the award of the ARSO Mark to the producer, on behalf of ARSO.<sup>2)</sup> Other necessary conditions may also be imposed on the producer by the ARSO SG for the use of the ARSO Mark.

In some cases, further information might be required by ARSO SG from the national member before approval could be given. If however, some critical conditions have not been met, the application will be rejected and the reason communicated to the national member.

### **4 USE OF ARSO MARK AND SURVEILLANCE**

4.1 The ARSO Mark should be affixed on a product in combination with the national certification mark. Other texts and/or symbols may be added to the basic Marks. This could vary from scheme to scheme. For each scheme however, the conditions for marking should be specified in the specific rules by the NSB. The specific rules can for example, state:

- (i) Where the NSB and ARSO Marks are to be applied on the product;
- (ii) How the Marks are to be applied;
- (iii) Whether the Marks are to be supplemented with numbers of relevant standards or with other explanatory texts;
- (iv) Whether and how the name of the licensee should be given; and
- (v) Inspection procedures to be followed by the factory including methods of recording test results, how and where these should be made available to inspectors on surveillance visits, etc.

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<sup>1)</sup> See the Guide for checklists of these reports.

<sup>2)</sup> A licence for use of the ARSO Mark will be issued to the producer.

## **4.2 Surveillance**

During the period of time for which a licence to use the ARSO Mark is valid, there is follow-up action by the NSB. Thus, the NSB inspector will pay unannounced visits to the factory to:

- examine the licensee's quality records
- study test records as kept at different agreed production units
- confirm that appropriate action was taken when failure occurred
- check records on the calibration and maintenance of test equipment
- draw samples if necessary for testing
- inform factory about the results of surveillance and test.

In case of deviations, appropriate corrective actions (See clause 6) might be recommended depending on whether it is a minor, major or critical deviation.

The frequency of surveillance visits should be specified in the specific rules. However, the number of visits could be reduced or increased depending on the performance of the factory over a long period. A normal frequency could be four visits a year.

The report<sup>1)</sup> of each surveillance visit should be communicated to ARSO.

## **5 PUBLICITY OF MARKED PRODUCTS**

The publicity of a certified product under ARSO-CERT shall be done by ARSO, NSBs and the producer.

The NSBs and ARSO should at least annually prepare a directory containing the name and address of licence holders as well as the products covered by the licences. The list should be made public. Newsletters or magazines published by the NSBs or ARSO could also be used to publicize licenced products. Another publicity forum is during international trade fairs - where licenced products could be exhibited.

The producer on the other hand could within the duration of the licence advertise his product with reference to the Mark at appropriate mediums, when answering queries on future orders, when entering agreements on acceptance tests, etc.

The NSBs should however monitor the advertisements issued by the producer to make sure that no misleading information is given to purchasers.

## **6 MISUSE OF ARSO MARK AND CORRECTIVE ACTIONS**

The ARSO Mark is a proprietary property of ARSO and shall be registered as such in all African countries and other countries as the need arises. The Mark could be used by a producer under specific conditions and instructions. However, cases could arise where the Mark could be used incorrectly and/or unlawfully by both licence and non-licenece holders. This situation requires active response from the NSB immediately information about the misuse is established.

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<sup>1)</sup> See the Guide for a checklist of surveillance report

Instances of misuse might be:

- a) Application of Mark on non-conforming product;
- b) Unauthorized use of Mark, e.g. Mark appearing on non-certified product;
- c) Certified product subsequently found to be hazardous, e.g. due to inadequate standards, unanticipated end use of product, manufacturing defects, etc.
- d) Incorrect use of the Mark in advertisement, etc.

Corrective measures for the above instances differ. The NSB should be able to handle each case as it arises. **The ISO Guide 27 and the Guide of ARSO-CERT** provide details on some of the corrective measures that could be taken by the NSB. They include some of the following:

- a) Warning of licence holders;
- b) Suspension of licence until satisfactory remedial action(s) has been taken within a specified period;
- c) Withdrawal of licence, in cases where the misuse is deliberate and critical or enough corrective action is not taken by the producer during the suspension period, etc;
- d) Report to concerned regulatory authority and legal action in cases of unauthorized use, etc.

Simultaneous to some of the actions above, the NSB might require the producer to:

- suspend further marking and export of affected product(s)
- inform customers abroad for necessary actions
- recall products already in the market if possible
- rebuild or scrap affected products when appropriate

In cases of withdrawal of the Mark, the producer shall be given an opportunity to appeal against the decision of the NSB if it so wishes. The appeal should be handled according to the NSB set procedure.

## **7 VALIDITY OF LICENCE AND FEES**

### **7.1 Validity of licence**

A licence to use the ARSO Mark should be valid for a calendar year. The licence will however, be renewed one year at a time if no notice of its suspension or withdrawal is given to the producer or if the producer does not give notice of its intention not to renew the licence.

### **7.2 Fees**

The annual fee payable with respect to a licence shall be paid before the licence is due for renewal. The approved fees are contained in the Rules of ARSO-CERT. Accordingly, all producers shall pay an annual fee of US\$ 500 irrespective of volume of export for the first calendar year of holding a licence. For subsequent years, the annual fee shall be 0,02 % of marked products exported with a minimum of US\$ 500 and a maximum of US\$ 10 000.

## **8 CONCLUSION**

8.1 The ARSO Certification System (ARSO-CERT) is based on ISO/ITC certification system No. 5 which is operated by a majority of National Standards Bodies (NSBs) in Africa and beyond. The complete administration of ARSO-CERT within a member State will be the responsibility of the National Standards Body (or a designated national authority). The national member will therefore in summary:

- (i) Inform prospective producers about ARSO-CERT;
- (ii) Receive application from producers for certification with respect to specific product(s);
- (iii) Conduct preliminary inspection of the quality system and product of the producer;
- (iv) Draw product samples for test and evaluate the results;
- (v) Repeat factory inspection if necessary until it is satisfied;
- (vi) Apply to ARSO for regional licence for the product and attach a copy of the factory inspection report and other supporting documents;
- (vii) Carry out surveillance of product and quality system of the factory;
- (viii) Test products drawn from factory and open market;
- (ix) Inform ARSO and producer of the findings of the surveillance and test;
- (x) Insist on corrective actions in case of non-conformity;
- (xi) Investigate and deal with consumer complaints.

8.2 The above (8.1) summary indicates that most functions of the certification process will be undertaken by national members. However, some central functions still remain for ARSO. These are in summary:

- (i) Establish, update and publish working rules for ARSO-CERT;
- (ii) Ensure registration of ARSO Mark by national members on behalf of ARSO;
- (iii) Register the Mark in other countries when necessary;
- (iv) Publish standards and decide which can be used for certification;
- (v) Publicize ARSO-CERT widely within and outside Africa;
- (vi) Carry out assessment of the certification system and facilities of prospective national members of ARSO-CERT;
- (vii) Receive inspection and test reports of factory from national members and grant the use of ARSO Mark by producers;
- (viii) Carry out periodic and supplementary assessments of national members;
- (ix) Publicize marked products under ARSO-CERT;
- (x) Inform national members about changes in standards;
- (xi) Organize training courses under ARSO-CERT.