CHAPTER I : MINISTRY OF CONSUMER AFFAIRS, FOOD AND PUBLIC DISTRIBUTION

Bureau of Indian Standards

Highlights

- **As of March 2011, the Bureau of Indian Standards (BIS) had formulated 18222 standards. A test check of 214 standards revealed delays in formulation of standards ranging from one month to 18 years in 137 cases. Printing of standards also took considerable time against the prescribed norms, with delays ranging from four to 55 months in 153 cases.**

(Paragraphs 1.13.3 and 1.13.4)

- **BIS did not formulate standards in some of the new and emerging areas affecting the health and safety of consumers.**

(Paragraph 1.13.8)

- **There was poor adoption of standards under certification, due to lack of awareness among the stakeholders.**

(Paragraph 1.14.2)

- **Despite being a quality assurance body, BIS was unable to perform its monitoring and inspection roles adequately. There were significant delays in grant of licences, ranging between 121 days and over two years. Besides, there were significant shortfalls in surveillance visits ranging from 39 to 62 *per cent,* collection of factory samples ranging between 52 to 68 *per cent* and market samples ranging from 26 to 72 *per cent.***

(Paragraphs 1.14.3, 1.14.6 and 1.14.7)

- **The laboratory modernization programme initiated in 2005 could not be completed even after a period of seven years as BIS failed to procure 198 out of the proposed 403 pieces of test equipment.**

(Paragraph 1.15.2)

- **Testing facilities in the laboratories were inadequate. There were shortfalls in testing of samples (17 *per cent*), accumulation of 1103 samples for testing, for more than a year as well as non-availability of testing facilities in respect of some of the products in the BIS laboratories and outside laboratories. Audit also noted inadequate surveillance of outside laboratories.**

(Paragraphs 1.16.1, 1.16.2, 1.17 and 1.18)

- **Achievements against the targets fixed for the programmes of 'Consumer Awareness', 'Industry Awareness' and 'Educational Utilization of Standards' were 51, 43 and 34 *per cent* respectively.**

(Paragraph 1.19.1)

- **There were shortfalls in achievement of targets under the Management System Certification scheme operated by BIS.**

(Paragraph 1.20)

Recommendations

- *BIS may make the monitoring mechanism stronger for all stages of standard formulation to avoid delays.*
- *There is a need for timely formulation and review of standards in all areas, particularly those affecting the health and safety of consumers.*
- *BIS may focus on formulation of standards in new and emerging fields.*
- *There is a large untapped market for product certification activities. BIS should make sincere efforts to increase the base of its Product Certification Scheme.*
- *BIS may ensure adherence to the prescribed provisions for surveillance visits and collection of factory and market samples.*
- *BIS may ascertain the reasons for the large number of cases of dropping of licences and take appropriate action.*
- *BIS may consider reiterating its various norms to its officers so that these can be observed scrupulously.*
- *BIS may ensure regular supervisory visits to the licencees for effective control.*
- *BIS laboratories need to be well-equipped in terms of manpower and infrastructure to avoid delays in testing of samples.*

- *BIS needs to provide complete testing facilities for all items under certification, either in-house or through recognised laboratories.*
- *The promotion of Indian standards and product certification being important functions, BIS needs to make all out efforts to achieve the targets fixed for its awareness programmes.*
- *Ministry of Consumer Affairs, Food and Public Distribution and BIS may consider bringing the hallmarking of gold jewellery under mandatory certification so as to safeguard the interest of the consumers.*
- *BIS needs to increase the number of licencees under the management system certification scheme by increasing its competitiveness as well as by conducting awareness programmes and review meetings with the licencees.*
- *BIS should carry out its enforcement activities effectively by deploying requisite manpower.*
- *BIS should have a formal web policy and a well-structured website.*
- *BIS should make sincere efforts to fill up the vacancies in all cadres to carry out its mandated activities effectively.*
- *BIS may consider setting up its own internal audit wing.*

1 Introduction

1.1 Background

Prior to independence, standardization[1] activities in India were sporadic and confined mainly to a few Government purchasing organizations. Subsequently, the important role of standardization in industry for achieving competitive efficiency and quality production was recognized by the Government following which the Indian Standards Institution (ISI) was set up in 1947 as a registered society, under a Government of India resolution.

In the above scenario, while product certification had been given statutory status with the enactment of the Indian Standards Institution (Certification Marks) Act 1952, the formulation of standards and other related works were

[1] Standardization is an activity of establishing, with regard to actual or potential, provisions for common and repeated use, aimed at the achievement of optimum degree of order in a given context. (ISO/IEC)

not governed by any legislation. Therefore, the Government decided to restructure ISI and invest it with statutory authority for Indian standards (ISs) by passing the Bureau of Indian Standards Act in November 1986. As a result, on 1 April 1987, the Bureau of Indian Standards (BIS) came into being, after taking over the staff, assets, liabilities and functions of the erstwhile ISI. Through this change, the Government envisaged building up of the climate of quality culture as well as consciousness and greater participation of consumers, Central and State Governments, research organizations and regulatory agencies in formulation and implementation of national standards.

Before ISI was restructured into BIS on 1 April 1987, there were 13533 standards in force, against which 9350 licences were operative. As of March 2011, 18222 standards were in force, against which 32510 licences were operative.

1.2 Functions

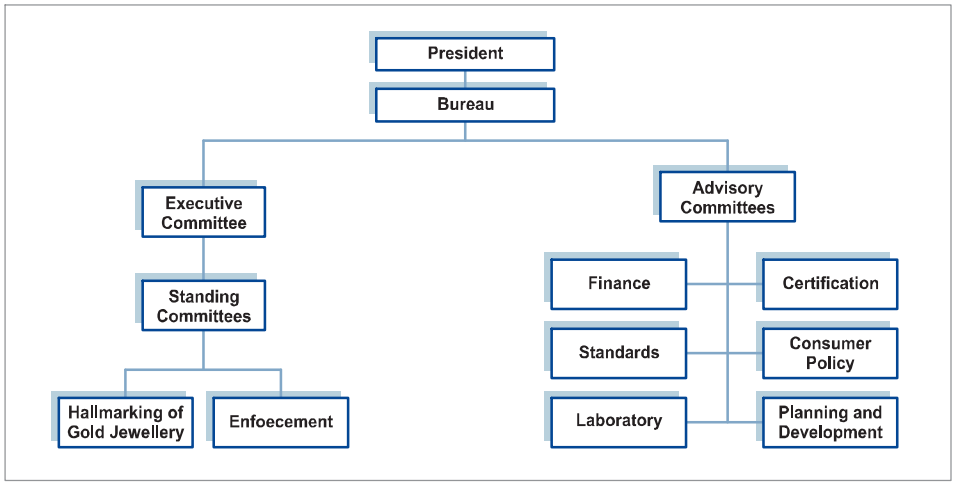
The Bureau of Indian Standards is responsible for the following functions:

(i) Formulation and updating of standards;
(ii) Harmonization with international standards;
(iii) Certification of products (including hallmarking) and management system certification;
(iv) Consumer promotion activities and information services and
(v) Laboratory services for standardization and quality control.

1.3 Organizational structure

BIS is the national standards body of India, functioning under the aegis of the Ministry of Consumer Affairs, Food and Public Distribution (MoCAF&PD), Government of India. The organizational structure of BIS is as depicted below:

Figure-1: Organisational Structure



The Bureau is a body corporate consisting of 25 members, representing the Central and the State Governments, Members of Parliament, research and consumer organizations etc. The Minister in-charge of MoCAF&PD acts as the President while the Secretary of MoCAF&PD is an ex-officio member. The Director-General (DG) of the Bureau is its Chief Executive Authority.

The Executive Committee, which makes rules and regulations and performs administrative and other functions, consists of the Director-General as *ex-officio* Chairman and nine other members, as appointed by BIS, with the prior approval of the Central Government representing MoCAF&PD, other Ministries, public sector enterprises, recognized consumer organizations, industry, trade and their associations and scientific and research institutions.

Six Advisory Committees have been constituted by BIS for advising on policy matters and efficient discharge of its functions relating to finance, standard formulation and certification, laboratory activities, consumer policy and planning.

For standards formulation work, an apex level Standards Advisory Committee (SAC) with 14 Division Councils (DC) and 312 Sectional Committees (SC) has been constituted. The main function of the DCs is to advise BIS on subject matters to be taken up for formulation of standards in their respective areas. **Annex-I** gives details regarding the various Division Councils. SCs are primarily responsible for formulation and maintenance of standards.

1.4 Financial position

BIS generates its resources mainly from certification and has not been receiving any grant from the Government for the last 20 years, except for specific projects. As on March 2011, BIS had a corpus fund of ₹ 245 crore, which comprised fixed assets, working capital, fixed deposits and Government securities. Income and expenditure figures of BIS from 2006-07 to 2010-11 are given in Table-1:

Table-1 : Year- wise income and expenditure figures

(₹ in crore)

Head	2006-07	2007-08	2008-09	2009-10	2010-11
Income	149.84	172.83	195.91	223.50	236.57
Expenditure					
Establishment Expenditure	53.10	55.37	87.20	111.44	101.99
Other administrative expenditure	33.24	35.65	36.74	41.95	52.03
Contribution towards shortfall in Pension/Gratuity Liability Fund Account	34.90	--	--	70.11	82.55
Surplus carried to Capital Fund	28.60	81.81	71.97	--	--
Total	**149.84**	**172.83**	**195.91**	**223.50**	**236.57**

As per Accounting Standard 15, the organisation should provide accrued pension and gratuity liability of its employees as per actuarial valuation. However, BIS did not fully provide for contribution towards pension and gratuity liability on actuarial basis during the years 2009-10 and 2010-11, and there was a shortfall of ₹ 154.38 crore and ₹ 59.70 crore in the years 2009-10 and 2010-11 respectively, for the same[2]. Had BIS fully provided for the above liability, the 'nil' surplus during 2009-10 and 2010-11 would have been converted into loss of ₹ 154.38 crore and ₹ 59.70 crore respectively.

1.5 Scope of audit

The Bureau of Indian Standards is audited under Section 19(2) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Services) Act 1971. The last review of BIS was conducted by the C&AG during 1991, covering the period from 1985-86 to 1990-91. The current performance audit covered the period 2006-07 to 2010-11 and was conducted between July 2011 and February 2012.

1.6 Audit sampling

BIS had formulated a total of 18222 standards, out of which 1627 were formulated during the audit period. Audit selected 214 standard formulation cases for detailed scrutiny on the basis of proportional representation using the stratified sampling method. The Bureau had issued 32510 licences under the

[2] Annual accounts for the year 2009-10 and 2010-11

certification marks scheme for 924 standards, out of which 200 licences were selected for audit. DC-wise sample sizes are given in **Annex-I.**

BIS has five regional and 34 branch offices, apart from eight laboratories, located at various places in the country. The performance audit was based on test check of BIS's records at its headquarters in New Delhi and selected regional/branch offices[3] and laboratories.[4]

1.7 Audit objectives

Performance audit of BIS was taken up to see whether:

- the laid down procedures for formulation of standards were adhered to;
- regular reviews of standards were carried out to keep them up-to-date;
- it was able to increase the product certification adequately;
- procedures for certification of products including surveillance of licencees' premises, drawal and testing of samples from factories and markets, were effective and transparent;
- the capacities of laboratories owned by BIS were adequate and optimally utilized;
- activities to promote concepts of standardization, certification and quality among consumers were adequate and effective; and
- it had adequate manpower to carry out its activities.

1.8 Audit methodology

An entry conference was held on 27 July 2011 with the DG and other officers of BIS, in which the audit scope and objectives were discussed. As stated earlier, field audit was conducted during the period July 2011 to February 2012 through examination of records, interaction with concerned officers, issue of questionnaires, collection of evidence etc.

The draft performance audit report was issued to MoCAF&PD and BIS in April 2012. MoCAF&PD requested BIS to send its replies to Audit directly, under intimation to it. The replies of BIS were received in May 2012 have been suitably incorporated in the report. An exit conference with the DG and

[3] Central Region Office (CRO) at New Delhi; Southern Region Office at Chennai; Branch Office, Ghaziabad under CRO, Branch Office, Faridabad under the Northern Region Office.
[4] Central Laboratory, Sahibabad; and the Southern Region Office Laboratory, Chennai.

other officers of the BIS was held on 15 June 2012, wherein the main findings of Audit and related recommendations were discussed.

1.9 Sources of audit criteria

The sources of audit criteria for performance audit were derived from the following:

- BIS Act 1986;
- Manual for Standards Formulation;
- BIS Certification Regulations, 1988;
- BIS Operating Manual for Certification, 2004;
- BIS Guidelines on Assaying and Hallmarking of Gold and Silver Jewellery;
- Laboratory Testing and Inspection Guidelines of BIS;
- Enforcement Guidelines; and
- Other circulars, Rules & Regulations issued by BIS and MoCAF&PD.

1.10 Previous audit findings

A performance audit report on BIS had appeared in CAG's Report No. 11 of 1992, in which Audit had observed the following major deficiencies:

- There were considerable delays in formulation of standards, ranging from two years to more than 10 years.
- Only 30 to 56 *per cent* applications could be processed for grant of licences.
- The dropout rate of licences ranged between six and 11 *per cent*.
- The shortfalls in conducting periodic inspections ranged between eight and 33 *per cent*.
- The number of samples drawn, both from the factories and the markets was lower than that prescribed under the Certification Marks Manual.
- There were inordinate delays in testing of samples at BIS laboratories.
- Thirteen pieces of laboratory equipment worth ₹ 75.69 lakhs had not been put to optimum use.

However, as detailed in this Performance Audit Report, most of the deficiencies pointed out in the earlier Audit Report continue to persist, which is a matter of concern.

1.11 Structure of the Audit Report

The findings in the Performance Audit Report have been arranged in the following paragraphs:

- ✓ Standard Formulation;
- ✓ Product certification;
- ✓ Laboratories;
- ✓ Other activities (promotional and consumer related activities, hallmarking scheme, management system certification, enforcement mechanism and website of BIS);
- ✓ Manpower management; and
- ✓ Internal audit.

1.12 Audit acknowledgement

Audit acknowledges the cooperation and assistance extended by BIS at various stages during the conduct of this performance audit.

1.13 Formulation of standards

As per the Manual for Standards Formulation, the objectives of standardization are promotion of economy in human efforts, materials and energy in the production and exchange of goods as well as protection of consumer interests through adequate and consistent quality of goods and services. Under the Bureau of Indian Standards Act 1986, BIS establishes Indian Standards in relation to any article or process and amends, revises or cancels the standards so established, as may be necessary, by a process of consultation with consumers, manufacturers, technologists, scientists and officials through duly constituted committees. Standards are formulated in respect of products, methods of test, codes of practice, terminology, dimensions, symbols etc. All the standards are required to be notified in the Gazette of India for their formulation, revision and withdrawal.

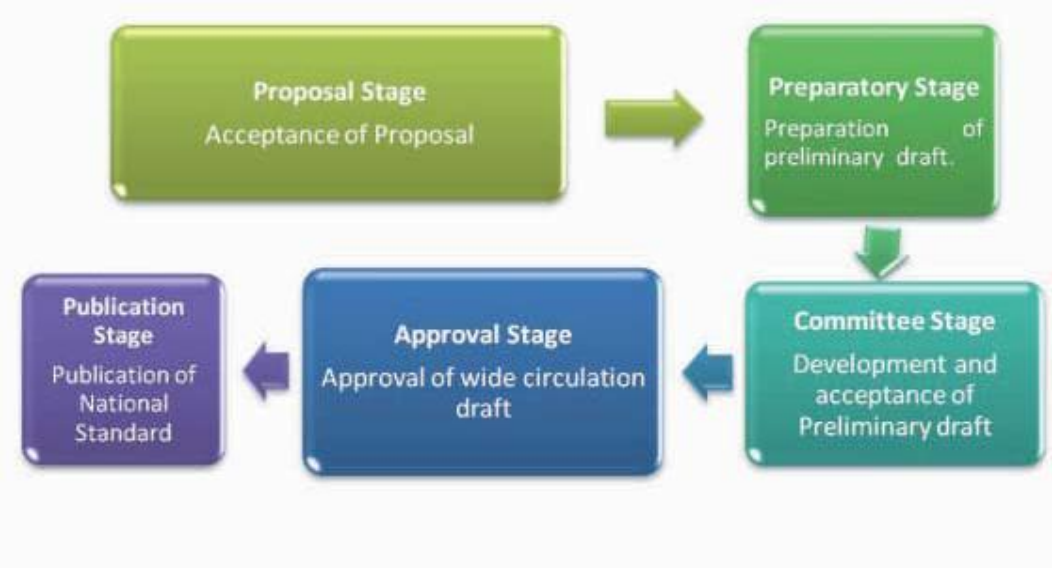
As stated earlier, BIS had formulated a total of 18222 standards by March 2011, out of which, 1627 standards were formulated during the audit period. Test check of 214 standard formulation cases revealed significant gaps in the

various stages of standard formulation, as discussed in the succeeding paragraphs.

1.13.1 Process of standard formulation

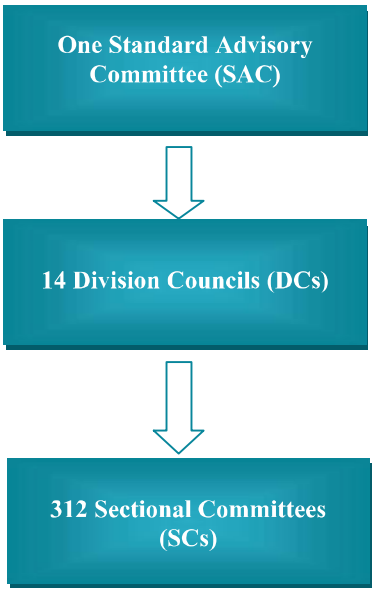
Proposals for formulation of new ISs or for their revisions or amendments may come from any Ministry of the Central Government, State Government, Union Territory Administration, consumer organization, industrial unit, industry association, professional body or from BIS itself. The process of standard formulation consists of five stages i.e. the proposal stage, the preparatory stage, the committee stage, the approval stage and the publication stage, as shown in Figure 2.

Figure-2: Stages of standard formulation



As mentioned earlier, a three-tier committee structure i.e. one Standard Advisory Committee (SAC), 14 Division Councils (DCs) and 312 Sectional Committees (SCs), handles the task of standard formulation as illustrated in Figure-3.

Figure-3: Three-tier committees



Consists of a Chairperson and nine other members, appointed by BIS from amongst its members. The SAC advises BIS on matters relating to:

- Harmonious development of standards
- Publication of standards
- Promotion of standards

Consist of officers of the Bureau and representatives of various interests such as consumers, regulatory and other Government bodies, industries, scientists, Chairpersons of Sectional Committees (SCs) under the division etc. DCs render advice to the SAC on the subject area to be taken up either for formulation or revision of standards. DCs approve proposals for work to be taken up and direct concerned SCs to undertake the approved work and determine the priorities for different work.

Consist of concerned officers of the Bureau and representatives of consumers, NGOs, regulatory and other Government bodies, industries, consultants etc. Their work consists of the following:

- Preparation and approval of the preliminary drafts
- Wide circulation of the approved preliminary drafts for comments
- Finalisation of the draft standards in consultation with the DCs after receipt of comments from stakeholders.

1.13.2 Meetings of the committees

As per the BIS (Advisory Committees) Regulations, 1987 and the Manual for Standards Formulation, the Advisory Committees, DCs and SCs should each meet at least once in a year to discuss various issues like processing of draft IS from stage to stage, reviewing and prioritizing the various items of work in hand, resolving controversies by consensus etc. Audit found that during the period 2006-07 to 2010-11, the SAC had held only four meetings against the requirement of five. The DCs also did not hold regular meetings and there was a shortfall of 24 *per cent* in holding the required number of meetings. As far as the meetings of the 312 SCs were concerned, the shortfalls ranged from 14 to 68 *per cent.* Details are given in **Annex-II.**

Test check of records also revealed that the intervening period between two meetings in many instances was much more than 12 months. In fact, certain DCs and SCs operated for as long as 27, 34, 35 and 53 months, without even a single meeting taking place (**Annex-III).** Infrequent and irregular meetings could lead to delays in preparation, review, revision and harmonization of standards and affect their quality as well.

Audit observed that the participation of members in the meetings was very poor. Test check of 214 cases pertaining to standard formulation revealed that 54 *per cent* of members did not attend SC meetings. Further, it was observed that 39 standards were formulated without receiving any comments from the concerned SC members.

In its reply, BIS stated (May 2012) that the shortfall in conducting SAC meetings was due to changes in the composition of the SAC. It further stated that there was no mandatory requirement for conducting of such meetings every year. However, all efforts were made by BIS to increase the participation of members in the committee meetings, like sending meeting notices as well as agenda well in advance and requesting them to attend the meetings.

The reply is not acceptable since the meetings are mandatory as per clause 3(7) of the BIS Advisory Committee Regulations, 1987. Secondly, the meetings are necessary for discussing various issues like processing of draft IS from one stage to another, reviewing and prioritizing various items of work in hand, resolving controversies by consensus etc.

1.13.3 Formulation of standards

As per clause 5.3.7 of the Manual for Standards Formulation, a standard should be formulated within a time-frame of 12 to 28 months[5] from the availability of the preliminary draft. Further, as soon as the finalized draft standard is adopted, the same should be notified in the Gazette within a period of 30 days. Monitoring of progress of formulation of standards against the agreed dates should be done by the Secretariats of the respective SCs as per clause 5.1.4 of the Manual for Standards Formulation.

It was noted that during the audit period, out of 1627 standards formulated, the time taken in formulation ranged between three to four years in 236 cases and five to 10 years in 39 cases (excluding the time taken in printing the standards). Delays ranging from one month to 18 years in standard formulation were noticed in 137 out of 214 test-checked cases (64 *per cent).* Delays in formulation of standards were indicative of inadequate monitoring by BIS.

[5] The time schedule for formulation of standards on 'top priority' subjects is 12 months. For other subjects, the time schedule can vary from 20 to 28 months, depending upon the nature of the subject and the priority assigned to it.

BIS stated (May 2012) that there were a number of reasons which could cause delays in finalization of IS, which were attributable in some cases to BIS but in the majority of the cases, to agencies outside the purview of BIS.

The reply is not acceptable since sufficient time of 12 to 28 months was allowed for formulation of standards and although outside agencies or members are involved in the process of standard formulation, the final responsibility for the same is that of BIS.

1.13.4 Printing of standards

The normative time schedule of 12 to 28 months prescribed by BIS for standard formulation/revision includes a period of three months for printing of the standards. It was, however, observed during audit that BIS did not adhere to this time schedule. In 153 out of 214 test-checked cases (71 *per cent)*, printing of standards took considerable time, ranging between four and 55 months.

BIS stated (May 2012) that a decision had been taken with effect from April 2011 to publish all ISs in soft copies, dispensing with the conventional printing of ISs through the Government of India Press, which caused delays in printing.

1.13.5 Review of standards

As per clause 5.11.1 of the Manual for Standards Formulation, every standard is to be reviewed by the Sectional Committee concerned in not more than five years after publication, reaffirmation, revision or declaration of obsolescence, to establish whether the standard is still relevant and, if it is not, to identify and initiate appropriate action. Audit scrutiny revealed that the number of cases in which BIS did not adhere to the time schedule in respect of review of standards during the period 2006-07 to 2010-11 were 444 out of the 17887 standards due for revision. The delays ranged between seven and 34 months as detailed in **Annex-IV**. The reasons for the delays in review of standards were attributed by BIS to shortage of manpower (227 cases), delays in conducting of meetings (140 cases) and oversight (77 cases).

In its reply, BIS stated (May 2012) that 97.6 *per cent* of ISs were reviewed in time. However, review of the remaining 2.4 *per cent* standards had taken little longer time than stipulated.

1.13.6 Revision of standards

According to clause 5.11.2 of the Manual for Standards Formulation, while reviewing a standard, a SC has five options available:

a) Reaffirmation, indicating continuation of the current standard without change in the old IS;

b) Amendment, indicating the continuation of the current standard after necessary changes to bring it up to date;

c) Revision, involving the procedure for a new standard and reaffirmation for the time being;

d) Declaration of obsolescence, indicating by an amendment that the standard is not recommended for use in new equipment but needs to be retained to provide for the servicing of the existing equipment that is expected to have a long working life and

e) Withdrawal, indicating that the standard is no longer needed.

On reviewing a standard, if the concerned committee feels that it is required to be revised to bring it in line with the present national and international practices in the field, the same is done by adopting the procedure used for a new standard. The revision of a standard is expected to be completed within a time schedule of 12 to 28 months.

During the performance audit, it was observed that in the five cases detailed in Table-2, the process of revision of standards took excess time. As a result, updated technical specifications for safety and other purposes reached the beneficiaries belatedly.

Table-2: Delay in revision of standards

IS - 4151:1993, Protective headgear for motorcycle/scooter riders
Audit findings : BIS provided certification of protective helmets for motorcycle/scooter riders under a standard, IS 4151:1982 formulated in 1982. The standard was revised in 1993 and considered for revision in March 2005. Meanwhile, the Ministry of Shipping, Road Transport & Highways issued (March 2007) directions to BIS for upgradation of the national standard on helmets in line with the latest European standard (EC 22.05) and implementation of a mandatory ISI marking scheme for helmets. At the instance of the Ministry, BIS again started revising the standard and issued the draft for wide circulation in March 2009. It was, however, noticed that the standard had not been upgraded to align with the latest EC 22.05 regulations to include an allowance for ventilation of the head, tests for chin guards

and side impact tests. The revision process is yet to be completed.(July 2012)

BIS's reply : BIS stated (May 2012) that even if the standard was revised in line with the European standard (EC 22.05), there would be no testing facilities for the new standard which would result in cancellation of all licences. As such, its implementation would not be feasible.

The reply is not acceptable since revision of testing facilities is also the responsibility of BIS and the same could be done simultaneously with the preparation of the standard.

Impact : Helmets are for human safety. Due to non-implementation of the updated standard, human safety would remain compromised to that extent.

IS - 2825:1969, Code for unfired pressure vessels

Audit findings : The standard was formulated in 1969. BIS decided to revise it in 1995-96 but the draft was circulated only in December 2001. In August 2004, the SC finalized the document subject to certain conditions. No further progress was made by the committee thereafter and the issue was referred to the Mechanical Engineering Division Council in April 2009 for necessary guidance in the matter.

The standard had not been revised despite the lapse of more than 10 years.

BIS's reply: BIS stated (May 2012) that a preliminary draft was approved for wide circulation during February 1995 by the Heavy Mechanical Division. Subsequently, in July 1999, this division was split into the Mechanical Engineering Division (MED) and the Production and General Engineering Division. The work was assigned to MED and the document was sent for wide circulation during December 2001. MED finalized the document in August 2004, subject to incorporation of allowable stress for material. The matter of allowable stress had not been finalized till March 2012. BIS concluded that the standard was not finalized due to technical limitations beyond its control.

Audit, however, observed that no progress had been made from February 1995 when the draft was approved for wide circulation, till 1999 when the division was split. The new division took two years (July 1999 to December 2001) for issuing the draft standard for wide circulation and a further three years (December 2001 to August 2004) for finalization. However, the matter of allowable stress could be decided only in March 2012. It is therefore, obvious from the above, that although the work was of a technical nature, it was not carried out in a timely manner.

Impact: This standard is for the safety of pressure vessels. A pressure vessel is a closed container designed to hold gases or liquids at a pressure substantially different from the ambient pressure. In the absence of the standard, the quality assurance of pressure vessels is likely to be compromised.

IS - 3231:1986, Electrical relays for power system protection

Audit findings : BIS felt (May 2004) that the current form of IS 3231:1986 series was not easily understood by the common person as there were lots of

cross-references. It was, thus, decided (December 2005) to combine the complete IS 3231:1986 series in one or two parts only. Accordingly, a small group was constituted to align the standard with the available standard of the International Electro technical Commission on the subject. However, only preliminary drafts had been prepared till date (June 2012).

BIS's reply : BIS stated (May 2012) that the SC, in its seventh meeting, informed (February 2008) that even after issuing of reminders during 2007, the recommendations had not been received from the working group and the issue had been reconsidered (February 2012) to upgrade the standard with the latest IEC 60255 standard. BIS also stated that the time taken for formulation of the standard should be reckoned from February 2012.

The reply of BIS is not acceptable since it could not finalise the preliminary draft even after the lapse of over six years.

Impact : Electrical relays are used for power systems protection and in the absence of the revised standard, advancements in power systems protection were not available to the consumers.

IS -3499 (Part 2) : 1985, Specification for metal chairs for office purpose

Audit findings : In November 2007, the concerned Sectional Committee of BIS entrusted the work of revision of the standard to M/s Godrej & Boyce Mfg. Co. Ltd, one of the members of the SC. As of May 2012, the standard had not been revised.

BIS's reply : In its reply, BIS stated (May 2012) that the work of preparation of the draft standard and its revision is done on a voluntary basis and BIS does not make any payment to the members. It further stated that during November 2011, the committee had once again requested M/s Godrej to prepare the draft for revision of the standard.

However, the fact still remains that the standard could not be revised till date (May 2012).

IS - 8328:2007, Free cutting copper bars, rods and sections – Specifications

Audit findings : A draft for revision was issued initially in September 1998 to the concerned SC. However, it was sent for wide circulation, belatedly, in November 2000. Although the first revision of the standard was finalized in March 2002, the matter was kept pending for three years and BIS again sent a draft for wide circulation in September 2005. The standard was finally printed in January 2007. Thus, BIS took nearly nine years to get the standard finalized and printed.

BIS's reply : BIS stated (May 2012) that the standard had been finalized in 30 months but there was a delay in sending the draft for printing due to frequent changes of Member Secretaries.

The reply is not acceptable in audit as the total time taken for revision of the standard was more than eight years.

1.13.7 Gazette notification for formulation and withdrawal of standards

In terms of clause 5.17 of the Manual for Standards Formulation, all ISs including tentative and recognized standards, their revisions, amendments, cancellations and withdrawals are notified in the Official Gazette. As per clause 5.6.6 of the Manual, as soon as a finalized draft standard has been adopted by the Chairman and the IS number is made available from the Printing Division, the concerned head of the department and Member Secretary of the technical committee has to get the same notified in the gazette within 30 days.

Audit found that in 79 out of 214 cases of standard formulation as detailed in **Annex-V-A,** BIS took two to 29 months for gazette notification**.** Similarly, in 127 out of 298 (as detailed in **Annex-V-B**) cases of withdrawal of standards, BIS took three to 44 months for the same.

In its reply, BIS stated (May 2012) that gazette notifications of withdrawn ISs were not required as per BIS Rules, 1987 and further stated that it decided the withdrawal of ISs in consultation with their licencees and till that time, the old ISs continued to be implemented.

The reply is not acceptable in audit as although the BIS Rules, 1987 are silent in this regard, the Manual for Standards Formulation (clause 5.17) envisages that all ISs, including tentative and recognized standards, their revisions, amendments, cancellations and withdrawals should be established by notification in the official gazette.

1.13.8 Formulation of standards in new and emerging fields

Audit observed that in the following cases included in Table-3, insufficient efforts were made by BIS to formulate ISs in new and emerging fields:-

Table-3: Insufficient efforts for formulation of standards in new and emerging fields

S. No.	Topic	Status/BIS Reply
1.	Hospital Bio-medical Waste Management and Infection Control including equipment/ instruments used	There are various areas in Hospital Biomedical Waste Management where standardization work is required to be carried out, e.g. instruments for sterilization of equipment i.e. autoclaves. Besides, there are waste management systems, wafer process systems for critical cleaning and sterilization of bio-medical components, implant devices, equipment/containers required under Biomedical Waste Management and handling etc. However, Audit observed that no standard was formulated by BIS in this field. BIS, in its reply, stated (May 2012) that it had already prepared a working draft on 'autoclaves' and two SC meetings had been held. In the second meeting held in March 2012, it was noticed that the working draft was not sufficient and therefore, the committee assigned the work for providing more details to one committee member.
2.	Safe magnetic fields level for pregnant ladies and cardiac pacemaker users	A proposal was received from the Ministry of Health & Family Welfare in December 2009 in this regard but work for formulation of the standard had not been started so far (May 2012). BIS, in its reply, (May 2012) stated that it had never identified this subject as a thrust area. The reply is not acceptable since the proposal had been received from the Ministry of Health & Family Welfare, for formulation of a standard. Since it concerned the health of women and heart patients, the standard should have been formulated.
3.	Halogen free flame retardant cables	There was no available standard on this aspect. Standardization work was pending since May 2008. BIS, in its reply, stated (May 2012) that the draft of 2008 was discussed in May 2010 and the working panel was strengthened. The new panel had approved the revised draft and had sent it for wide circulation. However, the fact remains that no standard had been formulated on the subject as of June 2012.
4.	Handbook for water resources management	There was no available standard on this aspect. BIS, in its reply, stated (May 2012) that an SC for the subject matter was constituted in 2008. The committee had 14 panels and each panel (except one) had met once and their work allocation had also been decided but the preliminary draft had not been prepared. Audit observed that work in this field was very slow as even after a period of four years, the preliminary draft had not been prepared.

5.	Industrial engineering such as value engineering, reverse engineering, method study, time & motion study and material management, process planning and control	There were no available standards on these aspects. The SC had not started the work on this aspect. BIS, in its reply, stated (May 2012) that the subject was initially taken up by the Production & General Engineering Division but later on, it was found that a similar subject was being dealt with by the Management System Division and therefore, the matter was transferred to the Management System Division. However, the fact remains that no progress had been made so far (June 2012).
6.	Standardization in the field of Ayurveda, in terms of terminology and quality standards of ingredients	There were no available standards on this aspect. The SC had not yet been constituted. BIS, in its reply, stated (May 2012) that efforts were on for nomination of a chairperson and for constitution of a SC.
7.	Mobile phones	(The details are discussed in the case study below). A proposal for formulation of a standard was received in November 2010. However, even the draft standard had not been finalized as of June 2012.
8.	Limiting and measuring radiation from mobile phone towers, mainly being installed in residential complexes and also for other radiation from mobile phones	The proposal for formulation of a standard was received in December 2009 but work was still to be started. BIS, in its reply, stated (May 2012) that the work of standard formulation under the subject had been assigned to Telecommunication Engineering Centre (TEC)[6] in July 2010 as TEC was already taking care of the standardization work in that area. However, the fact remains that standard in this field is not formulated so far (June 2012).
9.	Radio emissions for protection of common consumers - Certification/ registration of mobile phones for safety requirements, particularly in the cases of lithium batteries and radio emissions for protection of consumers	A proposal was received from MoCAF&PD in December 2009 but work was yet to start. BIS, in its reply, stated (May 2012) that the work of standard formulation under the subject had been assigned to the TEC in July 2010 as the TEC was already taking care of the standardization work in that area. However, the fact remains that the standard in this field has not been formulated so far (June 2012).
10.	Environment and other radio frequency related safety standards – Human exposure in radio frequency electromagnetic fields for the Indian region	There was no available standard on this. BIS, in its reply, stated (May 2012) that the work of standard formulation for the subject had been assigned to TEC in July 2010 as TEC was already taking care of the standardization work in that area. However, the fact remains that the standard in this field has not been formulated so far (June 2012).

[6] Telecommunication Engineering Centre, a technical wing of Ministry of Communications and Information Technology, is also one of the standard making bodies.

Given the huge advancements in technology and opening of new fields of study and research, leading to development of new products *viz*. Hospital Biomedical Waste Management, infection control, nanotechnology etc, BIS did not initiate action quickly to meet emerging needs of standardization in these areas.

Case study on Mobile phones

Issue On 31 May 2011, the World Health Organization confirmed that mobile phone use might represent a long-term health risk, classifying mobile phone radiation as a 'carcinogenic hazard'.

Importance of the issue for customers - India represents over 11 *per cent* of the world mobile phone market and the same is expected to increase to 13.4 *per cent* by the year 2013. At present (March 11), there are about 85 crore mobile users in India, constituting 70 *per cent* of the total population (TRAI Annual Report). As a result, there would be a demand for approximately 200 million handsets in the year 2013 alone. With such a high demand, not only is the Indian market increasing but the import of substandard mobile phones is also rising. There have also been reports of mobile phones malfunctioning and even exploding, causing injuries to people. The Indian Cellular Association (ICA) had stressed (2010) the need to develop an IS for mobile phone handsets to ensure that only quality and safe products are offered to the Indian consumer.

International comparison – Standards formulated by the European Telecommunications Standards Institute are in force in Europe for a number of years on subjects related to mobile phone handsets, usage and disposal.

Audit observation - There was no IS in any of the following areas:

Mobile phone handsets;

Radiation from mobile phones and

Batteries for mobile phones.

BIS, in its reply, stated (May 2012) that the Indian Cellular Association (ICA) had been requested (September 2011) to prepare a draft on mobile phones, which was still awaited from them. BIS, further stated that ISs on mobile batteries had already been finalized and were under printing.

The fact remains that standards on important aspects i.e. mobile handsets, radiation from mobile phones etc. had not been formulated so far.

1.13.9 Formulation of important standards identified in annual action plans

Every year, BIS identifies some areas as thrust areas for standard formulation and includes them in their annual action plan. BIS identified 124 cases as thrust areas on the basis of some new and emerging technologies in the respective fields in its action plans during the period 2006-07 to 2008-09, where standards were to be formulated. In 101 out of these 124 identified cases, standards were formulated and implemented in only 40 cases; standards were in the printing stage in 25 cases and they were under different stages of formulation in respect of 36 cases as of March 2011.

Thus, BIS failed to achieve the targets of standard formulation, even in the thrust areas identified in their action plans.

Recommendations

- *BIS may make the monitoring mechanism stronger for all stages of standard formulation to avoid delays.*
- *There is a need for timely formulation and review of standards in all areas, particularly those affecting the health and safety of consumers.*
- *BIS may focus on formulation of standards in new and emerging fields.*

1.14 Product certification

The Bureau operates a Product Certification Scheme, which is governed by the BIS Act, 1986 and the rules and regulations framed thereunder. Under the scheme, BIS grants licences to such manufacturers who are capable of producing goods of consistent quality on continuous basis as per the relevant ISs. The presence of the Standard Mark (popularly known as the ISI Mark) on a product indicates conformity to the relevant IS. The BIS product certification scheme is essentially voluntary in nature and aims at providing third party assurance on quality, safety and reliability to the consumer. However, there are a number of areas related to health, safety, consumer protection, export etc. where BIS product certification is mandatory. As of March 2011, there were 32510 operative licences under certification, under 924 standards. Certification was the main source of revenue for BIS.

BIS follows two procedures, i.e. normal and simplified, for grant of licences to the manufacturers. Under the normal procedure, the licence is required to be granted within 120 days. Under the simplified procedure introduced in 2007-08 the time taken for grant of licences was reduced to 30 days. For this the applicants have to furnish test reports of the samples from BIS approved

laboratories, along with their applications. After the preliminary evaluations are found to be satisfactory and the samples have passed independent testing, licences are granted if the applicants agree to operate the defined Scheme of Testing & Inspection (STI)[7] and pay the prescribed marking fees in advance. Applicants have the option to apply under any of the procedures.

1.14.1 Certification Advisory Committee

The Certification Advisory Committee (CAC) advises on policy matters relating to development of certification activities of BIS, coordination of certification activity with other organizations using ISs, collaboration with organizations abroad which deal with certification, formulation of guidelines for assessment of quality assurance etc. As per the BIS Advisory Committee Regulations, 1987, one meeting of the CAC is to be held in a year. However, it was noticed, that during the period 2006-07 to 2010-11, only three meetings of the CAC were held which, inter-alia, affected the development of certification activities.

In its reply, BIS stated (June 2012) that in future, the specified frequency of the meeting would be ensured.

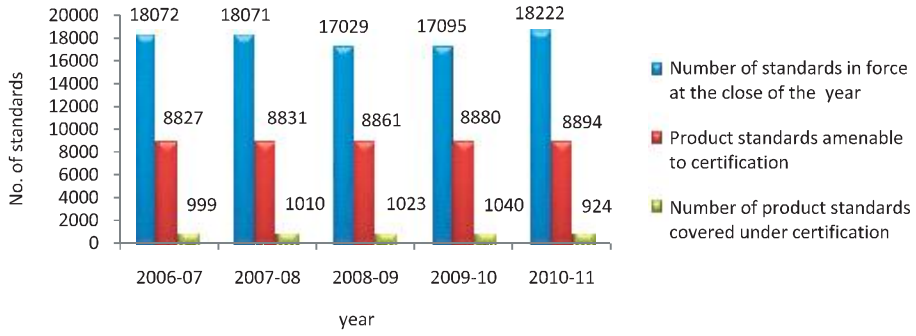
1.14.2 Adoption of product standards

Out of 18222 standards in force as on March 2011, 8894 were amenable to product certification i.e. different products could be certified as per the relevant ISs. The remaining standards were meant for test methods, codes of practice[8], dimensions, terminology, symbols etc. The year-wise information for the period 2006-07 to 2010-11 in respect of the total number of standards formulated, the number of standards amenable to certification vis-a-vis the number of standards actually covered under the product certification scheme by BIS is shown in Chart-1:

[7] An agreement entered between BIS and a firm, which lays down the system for checks and controls to be exercised by the firm in ensuring quality of a product during various stages of its production. The STI contains details for testing the product for quality parameters defined in the relevant IS.

[8] Sets of standards outlining the codes of proper practices for individuals or organizations

Chart-1: Low adoption of standards



It may be seen from the chart that although BIS had formulated a large number of standards which were amenable to certification, the actual adoption of standards was quite low and it ranged between 10.39 and 11.71 *per cent* of the amenable standards.

It was observed that only 924 product standards were used to grant 32510 product certification licences (March 2012). Out of 924 standards, 313 standards resulted in 30548 licences, whereas for the remaining 611 standards, only 1962 licences were issued. In other words, 34 *per cent* of the standards covered under certification resulted in 94 *per cent* of the product certification licences.

Further out of 32510 licences, 7484 licences (23 *per cent*) were under mandatory certification against 83 standards and 25026 licences (77 *per cent*) pertained to voluntary certification against 841 standards.

There were 83 standards under mandatory certification but there were no licences in 11 standards for areas such as high alumina cement, oil pressure stoves, valve fittings for use with liquefied petroleum gas cylinders and rapid hardening portland cement, leading to the risk of uncertified manufacturing in these areas. **(Annex-VI).**

Thus, there was a large untapped market for product certification and the base of the certification scheme could be enlarged. It was observed by Audit that poor utilization of the standards was partly on account of lack of efforts on the part of BIS in organizing publicity and awareness programmes.

BIS stated (May 2012) that though there were 924 product standards for which BIS product certification licences had been granted, those product standards referred to a number of other ISs on test methods, definitions, raw materials

etc. which were an integral part of the product standards. As such, the number of ISs actually implemented was much more.

The contention of BIS regarding the total number of standards is not relevant as the audit observation is about lack of licences issued, for standards amenable to certification which apart from being an important mechanism of quality assurance of products in India, was also the main source of revenue for BIS.

1.14.3 Grant of licences

Clause 2.2.3 of the Operating Manual for Product Certification 2004 envisages that all applications for licences should be scrutinized with respect to availability of adequate manufacturing machinery, testing facilities and qualified testing personnel. In case any deficiency is observed, it should be brought to the attention of the applicant through a letter within 10 days of receipt of his application and the applicant should be given 30 days time to remove the deficiency. In case no response from the applicant is received within 30 days, the application should be returned. The maximum time prescribed for grant of licences under the normal procedure and the simplified procedure was 120 and 30 days respectively. Licences are granted initially for a period of one year and are renewed for a further period of one or two years.

Scrutiny of records revealed that during the period 2006-07 to 2010-11, a total of 25140 applications were received for grant of licences, out of which 2627 applications were closed due to various reasons such as non-receipt of fees, lack of responses from applicants etc., 157 applications were under different stages of process (March 2011) and 22356 applications had resulted in grant of licences. The analysis of the time taken for grant of licences in respect of these 22356 licences is given in Table-4:

Table-4: Time taken in grant of licences

Total number of applications matured into grant of licence	Within 120 days	More than 120 days less but than one year	More than one year but less than two years	More than two years
22356	17886	4204	181	85

The table shows that 20 *per cent* of the licences could not be given within the prescribed time.

BIS stated (May 2012) that 100 *per cent* compliance to the specified time norms could not be achieved due to unavoidable circumstances such as

dealing with cases of applications of foreign manufactures, unforeseen complications in handling all-India first products in certification[9] etc.

The reply is not acceptable, as the norm of 120 days for grant of a licence had been fixed by BIS after considering all such aspects.

1.14.4 Monitoring of 'stop marking'

BIS may direct a licencee for 'stop marking'[10] when sufficient evidence is available that a product carrying the standard mark is not conforming to the requirements of the relevant IS, failing quality tests, receiving complaints from genuine consumer fora, receiving unsatisfactory surveillance inspection reports etc.

As per the Operating Manual for Product Certification 2004, in case 'stop marking' instructions are issued, BIS authorities are required to conduct a visit to the licencee's factory/premises/godown within 30 days of the issue of such instructions to ensure compliance and physically take stock of the last batch of manufacture as well as the stock of the marked products available with the firm.

In the audit sample of 200 product certification cases, it was observed that 'stop marking' instructions were issued in 92 cases. It was, however, noted that compliance visits had not been carried out in 46 cases (50 *per cent*). Compliance visits were carried out in the other 46 cases, but were undertaken after delays ranging from one to 12 months. Thus in no cases were compliance visits undertaken within the stipulated 30 days. In three cases, firms continued the production of ISI marked articles (packaged drinking water, thermostatic electric irons and rubber for welding usage) during the stop-marked period, in contravention of orders. Possibility of continued production and sale of sub-standard articles using ISI marks with consequent health and safety risks could not, therefore, be ruled out.

BIS attributed (May 2012) the above deficiencies to shortage of manpower, manifold increase in other activities such as enforcement, management system certifications, complaint handling, court cases, awareness programmes etc.

The fact remains that BIS did not follow its 'stop-marking' instructions in respect of compliance visits.

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[9] First application of a new product covered under certification by BIS
[10] 'Stop marking' is an instruction to a manufacturer to stop marking of 'ISI' on its products

1.14.5 Cancelled/ dropped licences

The BIS (Certification) Regulations stipulate that unless a licence is renewed or its renewal is deferred, it will expire automatically at the end of the period (one or two years) for which it was granted. The position of operative licences, grant of new licences and licences cancelled/dropped during the period 2006-07 to 2010-11 is given in Table-5:

Table-5: Details of cancelled/ dropped licences

S. No.	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Number of operative licences at the beginning of the year[#]	18090	19286	20025	20972	22526
2.	Annual increase of number of licences (*per cent)*	-	7	4	5	7
3.	Number of new licences granted during the year	2463	2102	2595	2898	3151
4.	Number of licences cancelled	135	354	238	253	220
5.	Number of licences dropped	1145	1350	1325	1197	1291
6.	Percentage of dropped licences with reference to operative licences	6	7	7	6	6
7.	Percentage of dropped licences with reference to the number of licences granted during the year	46	64	51	41	41

[#] *Figures of operative licences are exclusive of licences under hallmarking*

It may be seen from the above table that the annual increase in the number of licences was between four and seven *per cent*. Further, the percentage of dropped licences in comparison to the operative licences at the beginning of the year, ranged between six and seven *per cent*. However, the percentage of dropped licences, with reference to new licences granted during a year, was high and ranged between 41 and 64 *per cent,* which was a matter of concern. The main reasons given by BIS for the large number of licences being dropped were non-receipt of renewal applications and advance marking fees; firms not being interested in further renewal of licences; voluntary surrender of licences etc. It was observed that BIS had not conducted any in-depth analysis to ascertain the reasons for the large-scale dropping of licences.

BIS stated (May 2012) that there had always been a increase in the number of operative licences every year and it may not be responsible for the large-scale cases of dropping licences. There may be other reasons like financial non-viability of industry, economic recession, etc. BIS was regularly making

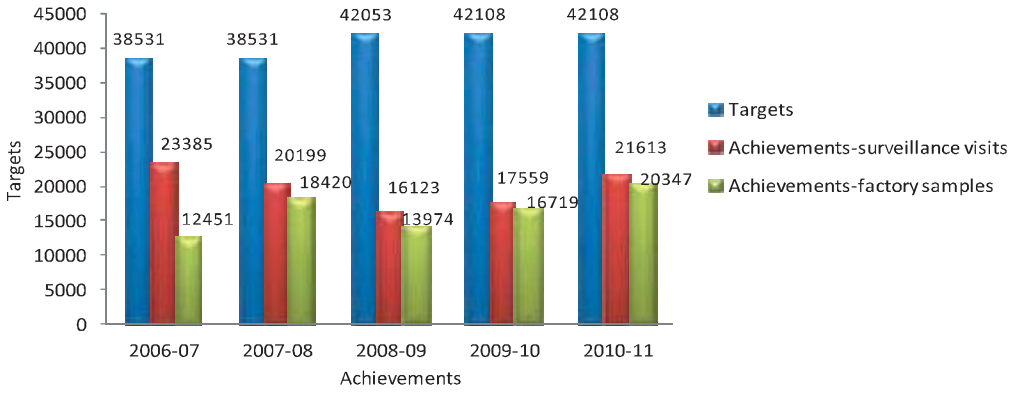
efforts through awareness programmes, advertisements, State level meetings, inter-ministerial meetings etc.

The reply is not acceptable as the annual growth in the number of licences was very low. Audit had also observed as described later in the report (para number 1.19.1), that there were shortfalls even in conducting of awareness programmes to popularize the Product Certification Scheme.

1.14.6 Surveillance visits to licencees' premises and collection of factory samples

Surveillance visits involve drawal of samples for independent testing and ensuring compliance with relevant standards. As per clause 3.3 of the Operating Manual for Product Certification, 2004, BIS is required to conduct a minimum of two such visits to the licencees' premises in a year and collect one factory sample per visit for independent testing. Records revealed that during 2006-07 to 2010-11, there were shortfalls in conducting surveillance visits, ranging between 39 *per cent* (2006-07) and 62 *per cent* (2008-09). As regards the collection of factory samples, the shortfall ranged between 52 *per cent* (2010-11) and 68 *per cent* (2006-07) as shown in Chart-2:

Chart -2 : Targets and achievements for surveillance visits and factory samples



Examination of 200 test-checked cases of product certification further revealed that:

- in 75 cases (which included 25 cases pertaining to mandatory items), the requirement of two surveillance visits per operative year per licencee was not adhered to. As against the 656 requisite surveillance visits for these cases, only 357 (54 *per cent*) visits were made.

- as per the Operating Manual for Product Certification 2004, the gap between two surveillance visits was not to exceed six months and all the licencees were required to intimate their production schedule etc. to BIS well in advance. Out of the test-checked cases, in 43 cases, the gaps between the two surveillance visits exceeded six months and in 56 cases, the surveillance visits were rendered infructuous and samples could not be taken due to the absence of production/stock and technical persons from the licencee units. Thus, it was apparent that BIS was slack in monitoring of licencees regarding maintenance of minimum prescribed norms.
- in 83 cases, against the requirement of collection of 716 samples (two factory samples per year per licencee), only 305 (43 *per cent*) samples were collected for testing.
- as per the Operating Manual for Product Certification 2004, in case a test report is not received within 60 days of receipt of a sample, a reminder has to be issued to the laboratory concerned. Audit noticed that in 73 cases, where test reports had not been received within 60 days, reminders were not issued to the laboratories concerned.

Although the ISI certification mark is an assurance of quality and is intended to provide third party assurance to consumers, the failure of BIS to draw the required number of factory samples for independent testing reduced the effectiveness of the marking scheme.

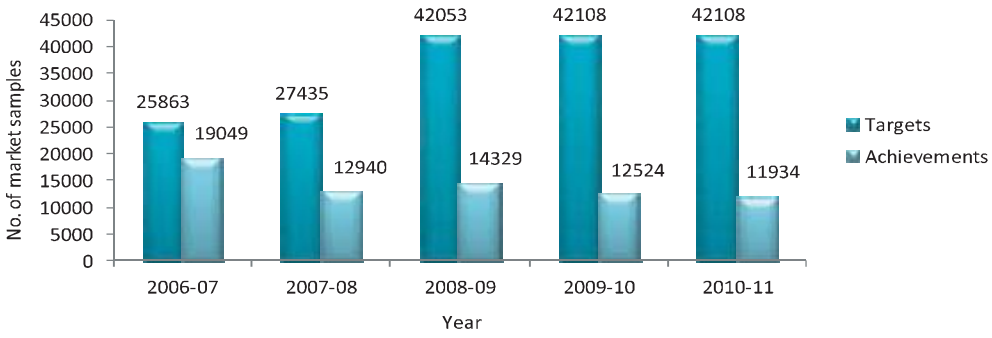
BIS attributed (May 2012) the shortfall in surveillance visits to shortage of manpower. As regards collection of factory samples, BIS stated (May 2012) that there was no such requirement. Majority of the licences were of a voluntary nature. Many licences were Government tender-based and some were seasonal. With such a distribution of licences, it was not possible to get factory samples or certified material stock during each surveillance. Hence, the logic of sampling during every surveillance visit could not be applied in such circumstances. Regarding delays in sending test report reminders or reminders not being sent, the main reason was acute shortage of manpower.

While BIS accepted the shortfall, the reply on the absence of requirement for collection of factory samples is not acceptable as Clauses 2.5.2 (b) and 3.3.1 of the Operating Manual for Certification, 2004 mandate the collection of two factory samples per licencee every year.

1.14.7 Collection of market samples

As per the STI, apart from samples from factories, two market samples of each certified product produced by licencee are required to be purchased from the market or procured from organized consumers for testing every year. Testing such market samples gives additional evidence as to whether the Product Certification Scheme is operating satisfactorily or not. Audit noticed that the shortfall of 26 *per cent* in the collection of market samples in 2006-07 gradually increased to 72 *per cent* in 2010-11. Details are given in Chart-3.

Chart-3 : Market samples-Targets and Achievements



Audit observed that out of 200 test-checked cases, in 117 cases, the requirement of two market samples per year per licencee was not being adhered to. As against the 999 requisite market samples, only 201 (20 *per cent*) samples were collected. The failure of BIS to draw the required number of market samples for independent testing reduced the effectiveness of the Product Certification Scheme.

BIS, in its reply, stated (May 2012) that as such, there was no defined frequency of collecting market samples. In order to monitor the quality of products effectively, efforts were made to purchase as many market samples as possible with the available manpower, which was acutely deficient. The other factors for reduction in the numbers of market samples could be non-availability of products on regular basis, captive consumption by parent companies or their ancillary concerns, supplies against tenders of Government sectors/public sectors which were not found in the open market, seasonal production based on seasonal demands, etc.

The reply is not acceptable as Clause 2.5.2 (a) of the Operating Manual for Product Certification 2004 envisages that two market samples of certified products should be purchased and tested each year.

1.14.8 Supervisory visits

As per Clause 3.4.1 of the Operating Manual for Product Certification 2004, the head of the certification departments in the Branch Offices (BO) were required to pay at least two supervisory visits in a month to the licencees by rotation, especially for products under mandatory certification, new products brought under certification in the BOs and licencees whose performances were inconsistent, to ensure that the stipulated procedures were strictly followed, both by the licencees and the technical auditors. An appraisal of supervisory inspections conducted by the test-checked BOs (Bhopal, Dehradun, Ghaziabad, Jaipur and New Delhi) during the period 2006 to 2011 indicated that the number of such visits was grossly inadequate. The percentage of shortfall ranged from 76 to 98 *per cent* as shown in Table-6:

Table-6: Yearwise shortfall in number of supervisory visits

S. No.	Year	Target of visits	Number of visits carried out	Percentage of shortfall of visits
1.	2006	168	27	84
2.	2007	168	40	76
3.	2008	168	5	97
4.	2009	168	4	98
5.	2010	168	8	95
6.	2011	168	7	96

Recommendations

- *There is a large untapped market for product certification activities. BIS should make sincere efforts to increase the base of its Product Certification Scheme.*
- *BIS may ensure adherence to the prescribed provisions for surveillance visits and collection of factory and market samples.*
- *BIS may ascertain the reasons for the large number of cases of dropping of licences and take appropriate action.*
- *BIS may consider reiterating its various norms to its officers so that these can be observed scrupulously.*
- *BIS may ensure regular supervisory visits to the licencees for effective control.*

1.15 Laboratories

The Bureau has eight laboratories[11] to cater to the needs of testing for standard formulation and the Product Certification Scheme. In-house testing of samples under this scheme was started in 1963 when the Central Laboratory (CL) was established at Sahibabad in U.P. Subsequently, with the number and variety of samples going up progressively, systematic expansion of laboratory activities led to establishment of four more regional laboratories and three branch laboratories. In addition to its own laboratories, BIS recognized outside laboratories for testing of samples.

1.15.1 Laboratory Advisory Committee

A Laboratory Advisory Committee (LAC) was constituted by BIS to give advice on various issues relating to laboratories. Audit observed that the LAC held only one meeting during the period 2006-07 to 2010-11, against the norm of one meeting per year, as envisaged in the Advisory Committee Regulations of 1987. Meetings of the LAC could have helped in proper execution of the laboratory modernization programme mentioned below, as well as in the overall performance of laboratories.

1.15.2 BIS laboratories-Modernization programme

In order to modernize its laboratory facilities, BIS finalized (March 2005), the purchase of 403 pieces of testing equipment for all its eight laboratories at a cost of ₹ 11.47 crore. Audit observed that BIS had not determined any time-frame for completion of the procurement. Consequently, even after the lapse of seven years, it had failed to procure 198 pieces of equipment worth ₹ 7.17 crore.

In its reply, BIS stated (May 2012) that the manpower requirement under the laboratory modernization programme was calculated at various stages but had not been provided and there had been a steady decline in the number of testing personnel.

The reply is not acceptable as BIS should have taken corrective steps for deploying the requisite manpower. Moreover, even in respect of the procured equipment, Audit found that some pieces of equipment were under-utilized for long periods of time. These cases are illustrated in Table-7.

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[11] Central Laboratory-Sahibabad, Northern Region Laboratory -Mohali , Eastern Region Laboratory - Kolkata , Western Region Laboratory -Mumbai , Southern Region Laboratory -Chennai, and three branch office laboratories at Patna, Bengaluru and Guwahati

Table-7: Details of under-utilised equipment

S. No.	Name of Equipment	Cost	Audit comment	BIS Reply
1.	Weather-o-Meter	₹ 30.22 lakh	The Weather-o-Meter, meant for testing the requirement of fastness to light in paint samples was purchased in October 2008 even though: (a) the existing BIS standard did not require conformity to the parameters tested by this equipment; (b) for cement paint, the size of panels prescribed for conducting the test was not suitable for use in the Weather-O-Meter. As a result, the device remained under-utilized. Only 10 samples of enamel interior finishing paints had been tested on the Weather-o-Meter till date, while 44 licences were granted based on existing standards. The Central Laboratory also made an avoidable payment of ₹ 3.28 lakh towards Customs duty in spite of BIS being exempted from Customs duty for purchase of the equipment.	BIS stated (May 2012) that it was not in a position to fully utilize the Weather-o-Meter till the time the relevant standards were suitably amended. The amendment was in process. As regards the payment of Customs duty, BIS stated that it had already taken up the matter of refund of Customs duty with the Customs authorities and assured that corrective action in this aspect would be suitably incorporated in the internal procedures, particularly for purchase of equipment from foreign suppliers.
2.	Fourier Transform Infrared Spectrophoto meter (FTIR)	₹ 15.30 lakh	The FTIR is used for testing the presence of mineral oil in packaged drinking water as required under IS 14543:2004. The method of testing specifically mentions that 'Hexane' is to be used as the solvent for the test. After purchase of the FTIR in March 2008, it was found while testing, that the device could not perform the test using 'Hexane' as the solvent. The FTIR has been lying idle since then. Incidentally, despite this test not being carried out, licencees were allowed to continue usage of the ISI mark (IS 14543:2004).	BIS stated (May 2012) that only when the equipment was put to use, the non-suitability of the solvent was identified and the matter was immediately taken up with the concerned technical committee. As and when the matter was finalized by the technical committee, the equipment would be optimally utilized.

1.16 Performance of BIS laboratories

1.16.1 Testing of samples in laboratories

Year-wise targets were fixed by BIS for testing of samples in its eight laboratories during the period 2006-07 to 2010-11. Achievements against these targets were as per Table-8:

Table-8: Year-wise targets and achievements of testing of samples

Year	Target of testing of sample (BIS laboratories)	Achievement (BIS laboratories)	Shortfall (BIS laboratories)	Percentage of shortfall (BIS laboratories)	Number of samples tested in outside laboratories
2006-07	30465	26945	3520	12	15624
2007-08	34345	25321	9024	26	18512
2008-09	27624	20802	6822	25	17947
2009-10	22600	19388	3212	14	16105
2010-11	19800	19282	518	3	18069
Total	**134834**	**111738**	**23096**	**17**	**86257**

It is evident from the above table that the targets set for testing of samples could not be achieved and there were shortfalls in testing of samples ranging between three and 26 *per cent* during the period 2006-07 to 2010-11. Despite the targets being reduced by 42 *per cent* from 2007-08 to 2010-11, shortfalls in achievement continued. Interestingly, against the decreasing trend in fixing of targets for BIS laboratories, the outflow of samples to outside laboratories registered an increasing trend (16 *per cent*) from 15624 samples in 2006-07 to 18069 samples in 2010-11.

In its reply, BIS attributed (May 2012) the above deficiencies to shortage of manpower. Further, outside laboratories were recognized in such sectors where BIS laboratories did not have testing facilities. The outside laboratories were utilized not at the cost of working of the BIS laboratories but with the aim of supplementing the facilities to meet the requirement under the product certification scheme. It also stated that the Branch Offices took decisions to send the samples to BIS laboratories or outside laboratories based on urgencies depending upon the type of samples pertaining to resumption of marking, investigation of complaints etc. which were treated as priority samples.

The reply of BIS is not acceptable as Audit found that some samples were being sent to outside laboratories by BIS even though testing facilities were available in its own laboratories.

1.16.2 Persistent accumulation of samples in BIS laboratories

For testing of samples in the laboratories, a maximum period of 60 days is prescribed. However, it was observed that during 2006-07 to 2010-11, the actual time taken in testing of samples was as detailed in Table-9:

Table-9: Age-wise analysis of time taken for testing of samples

Actual time taken (from drawal to testing of samples)	Number of samples
Less than three months	48676
3-12 months	31335
Over 1 year	1103

From the data given above, it can be seen that a significant proportion of samples could not be tested within the prescribed schedule. Further in respect of 1103 samples, the actual time taken was more than a year, raising the possibility that the samples may have deteriorated in the meantime, rendering them unfit for testing. (The CL did not furnish the age-wise data of testing of samples for the years 2006-07 to 2009-10).

The main reasons stated by BIS for the undue delays in testing were decreasing strength of personnel engaged in testing, delays in procurement of laboratory consumables, participation in technical meetings etc.

Laboratories also expressed their inability to accept samples in cases of sample accumulation. Audit scrutinized 17 groups of products[12] involving 245 ISs in detail and found accumulation of samples for periods ranging between 30 and 860 days.

Thus, it was evident that non-achievement of targets of testing of samples in laboratories and under-utilization of laboratory infrastructure resulted in persistent accumulation of samples which subsequently led to increased outsourcing of testing to outside laboratories directly by various branch offices of the BIS.

[12] Scrutiny of 245 standards involving 17 groups of products was conducted at the Central Laboratory, Sahibabad.

In its reply, BIS attributed (May 2012) the above to long duration tests, sudden break-downs of testing equipment, repeat tests etc. It also mentioned the shortage of manpower as well as deployment of testing personnel in many other activities such as quality assurance etc. as the basic reasons for accumulation of samples.

In the opinion of audit, the sudden break-downs of testing equipment, repeat tests as well as shortage of technical manpower etc., could have been avoided if BIS had taken effective steps for rectification of the problems.

1.17 Testing facilities

1.17.1 Absence of testing facilities for certification

As stated earlier, the Government of India has been notifying items which have to be mandatorily certified by BIS prior to production and sale in the market as of March 2011, there were 83 such items. In order to ensure consistency in the evaluation of product conformity to specifications, the licencee has to follow an agreed STI and maintain records of the test results while exercising his self-marking rights. The Operating Manual for Product Certification 2004 provides that in case a licence is being operated exclusively on factory testing basis, complete testing of the samples during surveillance visits at least once in a year should be done to ensure conformity of products to the relevant standard. Scrutiny of records pertaining to testing facilities for various items, including 83 mandatory items under product certification revealed the following irregularities:

(a) No testing facility with BIS or outside laboratories - No testing facilities were available in the cases of four mandatory items (covering 37 licences) and three non-mandatory items (covering 77 licences) under product certification, either with BIS or with the outside laboratories **(Annex-VII-A)**. These items included essential medical items *e.g.* diagnostic medical X-ray equipment, pathological microscopes, anaesthetic medicines for use with human and sensitive devices *viz*. 'valve fittings for gas cylinder valves for use with breathing apparatus' and 'multifunction valve assembly for permanently fixed liquefied petroleum gas (LPG) containers for automotive use'. It was evident that in the absence of testing facilities, strict compliance to the standards could not be ensured and sub-standard items could possibly be in circulation, which could put the lives and safety of the general public at risk.

(b) Partial testing facility with BIS and no testing facility with outside laboratories - In respect of five mandatory items covering 45 licences and

four non-mandatory items covering 140 licences, partial testing facilities existed with BIS laboratories and no testing facility was present in any of the outside laboratories **(Annex-VII-B)**. Some of the items included in the list were indispensable for consumers, both by law as well as for protecting life and limb, viz. protective helmets for motorcycle riders, disposable surgical rubber gloves and cylinders for on-board storage of Compressed Natural Gas (CNG) as a fuel for automotive vehicles.

Thus, lack of testing facilities posed safety risks and health hazards to consumers.

In its reply, BIS stated (May 2012) that upgradation of testing facilities was a dynamic process directly linked to the existing provisions of the ISs and their revisions and issuance of amendments from time to time. If testing facilities were created through procurement of new equipment for a particular product for which the number of licences was less, it might lead to under- utilization of that equipment. BIS also stated that BIS laboratories were under no obligation to create testing facilities for every product under mandatory certification.

However, the reply of BIS is not acceptable as complete testing facilities, whether in house or through recognized laboratories, is necessary for independent testing of samples taken by BIS under its product certification scheme.

1.17.2 Partial testing facility not converted into full testing facility

Partial testing facilities were available in respect of 267 ISs in Central Laboratory (CL), Sahibabad. Every year, BIS included completion of these partial facilities as one of its targets in its annual action plan. The CL had also decided that the testing sections should complete the testing facilities for products where only partial testing facilities were available. Audit observed that non-upgradation of partial testing facilities into full testing facilities had led to under-utilization of its existing infrastructure.

In its reply, BIS stated (May 2012) that CL had upgraded the facilities from partial to complete in 33 out of the 267 cases pointed out in audit.

However, the reply of BIS is not acceptable as it was found that out of the 267 cases of partial testing facilities, upgradation to full testing facilities has been done only in four cases.

1.17.3 Non-setting up of complete testing facilities for Solar Flat Plate Collectors as per IS 12933: 2003

In 2006, BIS initiated the process of setting up of a complete testing facility for Solar Flat Plate Collectors as per IS 12933: 2003 in two of its laboratories at Bengaluru and Mohali.

However, even after the lapse of more than six years, the said facilities could not be created. Out of the grants-in-aid of ₹ 33 lakh sanctioned (March 2006) by the Ministry of Non-Conventional Energy Sources for this purpose, only ₹ 16.50 lakh (first instalment) released by the Ministry could be utilized upto March 2011. BIS stated that the facility at the Bengaluru laboratory was incomplete due to lack of expertise to complete the work. The facility at the Mohali laboratory could not be created due to delay in clearance of its building by the State Government, lack of expertise as well as non-receipt of feedback from the Bengaluru laboratory.

Thus in spite of grants by the Government of India, BIS could not create testing facilities for solar flat plate collectors.

In its reply, BIS stated (May 2012) that since there was no dedicated cadre of officers for BIS laboratories, transfers/promotions/superannuation affected such projects. However, it was expected that testing facilities would be operationalised at the Bengaluru laboratory by June 2012. As regards the laboratory at Mohali, the same was in a dilapidated building which required major repairs, for which the State PWD had been assigned the work.

1.17.4 Creation of testing facilities for certification of fire extinguishers

BIS was engaged in formulation of ISs for firefighting equipment/extinguishers using water, carbon dioxide, foam, dry powder and halon as extinguishing agents.

The standards IS 940, 2171, 6234, 10204, 13849 and 2878 were formulated for certification of fire extinguishers with the total number of licences issued thereagainst [13] being 253. These standards were revised and replaced by a single standard viz. IS 15683 in 2006, which was to be implemented w.e.f. the year of revision of the standards i.e. 2006. To this end, the CL was required to create testing facilities. It was revealed during audit that the process of obtaining administrative approval for purchase of equipment for the purpose was initiated belatedly in March 2008 and the approval finally came through only in April 2009.

Audit observed that the CL had not been able to create the testing facilities till May 2012, even after the lapse of six years since the revision of the standards. Not only was an undue long time taken for administrative approval, but the process of purchase of equipment for creation of the facilities had also not been completed till May 2012. Since no testing facilities existed at outside laboratories also for the revised standard, consumer safety was compromised.

[13] IS 2171 : 54 licences; IS 6234 : 4 licences; IS 10204 : 41 licences; IS 13849 : 59 licences; IS 15397 : 2 licences; IS 2878 : 44 licences; IS 940 : 49 licences.

BIS stated (May 2012) that efforts were on by manufacturers and laboratories to update testing facilities as per the latest IS. Despite repeated efforts (tendering/retendering as per the GFR), BIS could not get the requisite testing facilities from Indian suppliers which led to this situation. An outside laboratory had already been recognized for the latest standard.

However, the fact remains that BIS failed to create testing facilities even after a period of more than six years from the revision of the standard in 2006.

1.18 Surveillance of outside laboratories

BIS has been operating a Laboratory Recognition Scheme for outside laboratories which are technically competent to perform tests as per the procedures stipulated in the relevant ISs. As of March 2011, 115 laboratories had been recognized under the scheme.

As per the guidelines of the scheme, recognition granted to outside laboratories expired automatically at the end of three years after recognition unless renewed, for which laboratories were required to submit their renewal applications three months in advance. It was, however, noticed that in 20 out of 74 test-checked cases **(Annex-VIII-A)** the laboratories continued testing of samples for periods ranging between one and 28 months, even after the expiry of the recognition periods.

BIS was also required to conduct two surveillance visits every three years to verify the effective implementation and maintenance of the quality system established by the respective laboratories. Test check of records of 18 laboratories revealed that only 18 surveillance visits were carried out against the target of 70 requisite visits since inception **(Annex-VIII-B).**

BIS admitted (May 2012) the shortfalls in surveillance of outside laboratories and further informed that the amendments in the relevant guidelines of the Laboratory Recognition Scheme had been recommended by the Laboratory Advisory Committee in March 2012 for approval by the Executive Committee. As per the provisions stated in the draft, the laboratories would not be permitted to test samples during the deferment period or the expiry period in cases of recognition from fresh dates. The shortfalls in surveillance visits were mainly because of non-availability of dedicated manpower.

Recommendations

- *BIS laboratories need to be well-equipped in terms of manpower and infrastructure to avoid delays in testing of samples.*
- *BIS needs to provide complete testing facilities for all items under certification, either in-house or through recognised laboratories.*

1.19 Other activities

1.19.1 Promotional and consumer-related activities

A Consumer Advisory Committee advises on policy and other matters relating to consumer interests and welfare. As per the Advisory Committee Regulations of BIS, meetings of the Consumer Advisory Committee are to be held once in a year.

It was, however, noticed that only three meetings were held during the period of five years from 2006-07 to 2010-11. Adherence to the prescribed norms for conducting Consumer Advisory Committee meetings was required to ensure that consumer interests were safeguarded.

Promotional and consumer-related activities were also carried out by BIS through consumer awareness programmes, programmes on industry awareness and programmes on educational utilization of standards.

The position of targets set for holding the above programmes as per the annual action plans and achievements thereagainst for the years 2006-07 to 2010-11 were as per Table-10:

Table-10: Awareness Programmes

Year	Consumer Awareness Programmes			Industry Awareness Programmes			Programmes on Educational utilization of standards		
	Target	Achieve-ment	Percent-age of achieve-ment	Target	Achieve-ment	Percen-tage of achieve-ment	Target	Achieve - ment	Percent-age of achieve-ment
2006-07	360	238	66	39	42	108	44	26	59
2007-08	360	125	35	39	12	31	44	09	20
2008-09	200	116	58	30	13	43	30	11	37
2009-10	200	76	38	30	04	13	30	09	30
2010-11	226	129	57	30	02	07	30	05	17
Total	**1346**	**684**	**51**	**168**	**73**	**43**	**178**	**60**	**34**

As is evident from the above table, the achievements against the reduced targets of programmes fixed for consumer awareness, industry awareness and educational utilization of standards, were only 51, 43 and 34 *per cent* respectively for the period from 2006-07 to 2010-11. The shortfalls in achievement of targets for awareness programmes could be one of the reasons for low adoption of the standards under the Product Certification Scheme.

In its reply, BIS attributed (May 2012) the shortfalls in the awareness programmes to shortage of manpower.

Recommendation

The promotion of ISs *and product certification being important functions, BIS needs to make all out efforts to achieve the targets fixed for its awareness programmes.*

1.19.2 Hallmarking scheme

Hallmarking is the accurate determination and official recording of the proportionate content of precious metal in precious metal articles. Government of India took cognizance of the need for protecting public interest in their purchase of gold jewellery, especially with regard to standards of fineness and prevention of adulteration. As a consequence, BIS was identified as the sole body to operate the Hallmarking Scheme in India.

Hallmarking of gold jewellery was launched by BIS in April 2000 with the objective of providing third party assurance to consumers regarding the purity of gold. Under the scheme, hallmarking centres were recognized by BIS, after ensuring that the centres had the required infrastructure for assaying and marking of gold jewellery.

On the advice of MoCAF&PD, BIS conducted a market survey on non-hallmarked gold jewellery in 2006 through an agency, to ascertain the quality of gold jewellery being sold in the country. The findings of the survey revealed that 146 out of the 162 samples (90 *per cent*) drawn from 16 cities were not of the declared purity. The average shortage in purity was observed to be 13.51 *per cent* and the highest purity shortage was 44.66 *per cent*. In Chandigarh, Delhi, Jaipur, Kanpur, Madurai and Pune, all the 10 samples failed the purity test. Consequently, MoCAF&PD approved (2006) bringing of gold jewellery under mandatory certification w.e.f. 1.1.2008 and accordingly, directed BIS to chalk out a strategy for successful implementation of the scheme. The BIS Act, 1986 was also required to be amended for implementation of mandatory hallmarking. BIS proposed (September 2006),

the following phase-wise programme to the MoCAF&PD for making the hallmarking scheme mandatory, under which, 53 hallmarking centres were proposed to be set up and a requirement of 105 officers as well as infrastructure like building space etc. was anticipated for Phase I. Details for the subsequent phases were to be worked out on the basis of experience of implementation of Phase I. The proposed phase-wise implementation was as given in Table-11.

Table-11: Phase-wise programme of implementation of hallmarking scheme

Sl. No.	Places	Implementation date	Number of assaying and hallmarking centres proposed to be set up
1.	**Phase-I** In four metro cities *viz* Chennai, Delhi, Kolkata and Mumbai	01.01.2008	53
2.	**Phase-II** In all State capitals and towns having Municipal Corporations	01.01.2010	NA
3.	**Phase-III** In all remaining district headquarters	01.01.2012	NA
4.	**Phase-IV** In all other locations	01.01.2016	NA

Covering hallmarking under mandatory certification was kept in abeyance by MoCAF&PD in March 2008, stating that it would be premature to proceed with the draft notification for mandatory hallmarking of gold jewellery in the four metros till the BIS Act was amended. Thus, the proposal for covering hallmarking under mandatory certification, which was initiated in 2006, had not materialized even after the lapse of six years. Meanwhile, the buyers of jewellery continued to suffer. The BIS Act had not been amended (June 2012) to cover hallmarking under mandatory certification. MoCAF&PD had also approved a Plan outlay of ₹ 10.50 crore for setting up of hallmarking centres, out of which only ₹ 2.62 crore had been provided to 27 such centres.

Data from the World Gold Council revealed that India imported about 800 tonnes of gold every year, of which 80 *per cent* (640 tonnes) was used for jewellery making. Since the average shortage in purity as per the market survey got conducted by BIS in 2006 was 13.51 *per cent*, it seemed that consumers in India were being cheated to that extent in the absence of a mandatory hallmarking scheme.

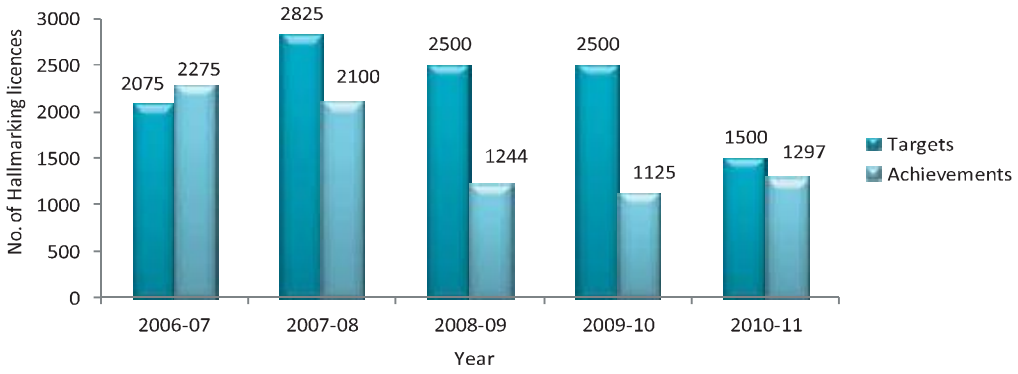
In its reply, BIS stated (May 2012) that it did not set up any centre of its own but granted recognition to assaying and hallmarking centres set up by entrepreneurs. The jurisdiction to amend the BIS Act, 1986 for making

hallmarking mandatory rested with MoCAF&PD and the regulations could be amended after amending the principal Act.

The reply of BIS is not acceptable, since it is the national standard body of the country and is mandated to provide quality assurance to the consumers, whether the concerned standard is made mandatory or not.

Further analysis of records revealed that BIS was also lagging behind in achievement of targets fixed for grant of licences to jewellers under the voluntary hallmarking scheme as given in Chart-4:

Chart-4 : Hallmarking licences-Targets and achievements



It may be seen from the above chart that there was a shortfall in the achievement of targets, ranging between 14 and 55 *per cent*. The annual target for the year 2010-11 was also lowered by 40 *per cent* as compared to the earlier years. The shortfall in achievement of targets could also be attributed to the shortfall in conducting awareness programmes on hallmarking by BIS as the responses from jewellers were not encouraging.

1.19.2.1 Market surveillance

BIS was to carry out market surveillance of certified jewellers, covering at least 10 *per cent* of the total number of licencees at the end of the previous financial year on a rotational basis. Market surveillance involved collection of hallmarked gold jewellery from licencees' retail outlets or manufacturing premises and getting it tested for conformity at a BIS recognized hallmarking centre. The details of targets fixed and achievements thereagainst are given in Table-12:

Table 12: Year-wise targets and achievements in respect of market surveillance

Year	Targets	Achievements	Shortfalls	Percentage of shortfall
2006-07	143	88	55	38
2007-08	371	231	140	38
2008-09	581	282	299	51
2009-10	705	310	395	56
2010-11	789	412	377	48

The shortfalls in the achievement of targets ranged between 38 *per cent* (2006-07) and 56 *per cent* (2009-10). Surveillance visits indicated a number of lapses on the part of jewellers like licence documents not being displayed, magnifying glasses not being available, details of hallmarking not being displayed on cash memos etc. Inadequate surveillance visits could lead to such discrepancies going un-noticed.

Apart from periodic surveillance of certified jewellers, one surprise surveillance assessment every quarter was required to be conducted by BIS on the assaying and hallmarking centres. Audit scrutiny revealed that yearly shortfalls in assessment visits showed an increasing trend during this period, ranging between 51 *per cent* (2007-08) and 70 *per cent* (2010-11) as detailed in Table-13:

Table 13: Year-wise targets and achievements in respect of Surveillance of Hallmarking Centres

Year	Target	Achievement	Shortfall	Percentage of Shortfall
2006-07	NA	NA	NA	-
2007-08	196	97	99	51
2008-09	420	201	219	52
2009-10	548	221	327	60
2010-11	596	181	415	70

In the absence of the required surprise surveillance visits, the possibility of inadequate compliance can increase substantially.

In its reply, BIS attributed (May 2012) the shortfall to shortage of manpower and multiplicity of its activities.

1.19.2.2 Awareness programmes

Under the hallmarking scheme, BIS conducts awareness programmes all over the country, including rural and suburban areas, for spreading awareness among jewellers. Besides, consumer awareness is also increased through advertisements in the print and electronic media and artisan training programmes. The details of the targets fixed and achievements thereagainst during the period under review are given in Table-14:

Table-14: Awareness Programmes under Hallmarking Scheme

Year	Awareness programme			Advertisements			Artisan training programme		
	Target	Achieve-ment	Percent-age of shortfall	Target	Achieve-ment	Percent-age of shortfall	Target	Achieve-ment	Percent-age of shortfall
2006-07	128	136	-	208	290	-	NA	NA	-
2007-08	58	57	-	216	170	21	15	10	33
2008-09	50	37	26	200	148	26	15	07	53
2009-10	50	43	14	200	210	-	15	12	20
2010-11	50	27	46	200	179	11	15	13	13

It may be seen from the above table that there were shortfalls ranging between 14 and 46 *per cent* in conducting awareness programmes; 11 and 26 *per cent* in release of advertisements and 13 and 53 *per cent* in conducting artisan training programmes. Targets were also significantly reduced in respect of awareness programmes.

BIS attributed (May 2012) the shortfalls to shortage of manpower and stated that conducting of awareness programmes depended upon the availability of various factors viz. faculty to deliver lectures, willing participants etc.

Recommendation

MoCAF&PD and BIS may consider bringing the hallmarking of gold jewellery under mandatory certification so as to safeguard the interest of the consumers.

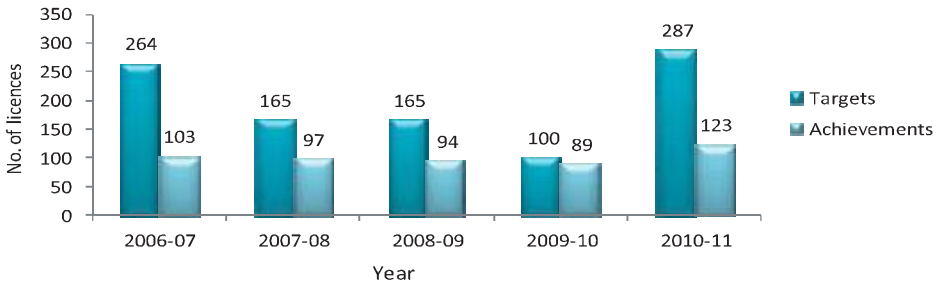
1.20 Management system certification

The management systems certification function of BIS consists of a series of activities aimed at assessing the ability of an organization's management systems. BIS launched the scheme of management system certification in 1991. It operates various management system certification schemes viz. IS/ISO 9001 (Quality Management System), IS/ISO 14001(Environment Management System), IS 18001 (Occupation Health and Safety Management

System), IS 22000 (Food Safety Management System) and IS 15700 (Service Quality Management System) certification.

Audit analysis of the records relating to the Management System Certification Scheme revealed that in respect of targets for grant of licences for the period 2006-07 to 2010-11 under the scheme, the shortfalls in achievement ranged from 11 to 61 *per cent* as shown in Chart-5.

Chart-5: Year-wise targets and achievements for grant of licences



BIS attributed (May 2012) the shortfalls to shortage of manpower.

It was observed that the total number of operative licences under the Management System Certification Schemes also reflected a downward trend. From a total of 1431 licences in 2006-07, the number reduced to 1093 licences in 2010-11. This indicated that BIS had failed to adequately popularize its management system certification schemes.

Further, for the purpose of creating awareness among licencees about changes in the requirements of certification standards and for obtaining first-hand feedback from the licencees, BIS was supposed to conduct review meetings with the licencees. Audit observed that BIS had conducted only 11 review meetings against the target of 25, during the period 2006-07 to 2010-11. During the year 2008-09, only one review meeting was held. Thus due to shortfalls in conducting review meetings, the purpose of creating awareness among licencees, regarding the requirements of certification standards and of obtaining first-hand feedback from them could not be fully achieved.

BIS also organizes awareness programmes on management systems. Audit scrutiny revealed that there were shortfalls in conducting these awareness programmes during the period from 2006-07 to 2009-10 *(figures for 2010-11*

were not available). BIS had conducted only 42 programmes against a target of 216 programmes, resulting in a shortfall of 81 *per cent*.

BIS stated (May 2012) that many foreign certification bodies had opened their offices or franchises in India and BIS could not compete with their aggressive way of working in the area of management system certification. It further stated that the Ministry of Medium, Small and Micro Enterprises (MSME) was operating a subsidy scheme under which entrepreneurs preferred to go to private certification bodies rather than BIS, for getting certification, in order to obtain subsidies from MSME.

Thus BIS accepted its weakness in an important area of its operation. It should have tried to improve its procedures to compete with the foreign certification bodies as well as private competitors instead of tamely accepting their superiority.

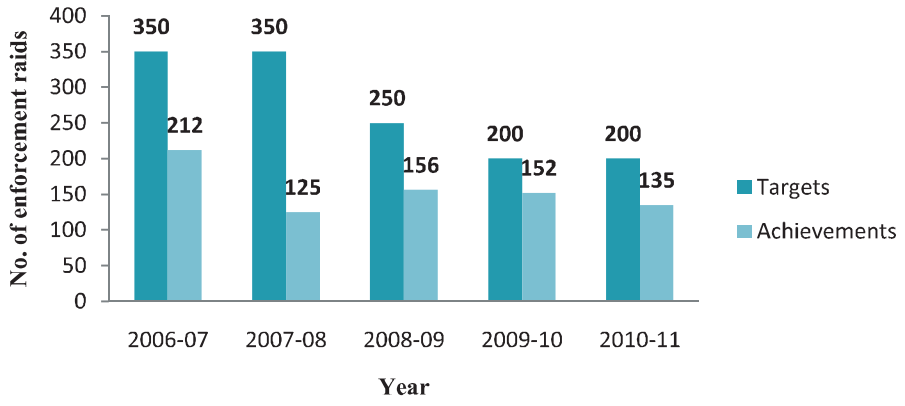
Recommendation

BIS needs to increase the number of licencees under the management system certification scheme by increasing its competitiveness as well as by conducting awareness programmes and review meetings with the licencees.

1.21 Enforcement mechanism of BIS

During the operation of the product certification scheme over the last four decades, there had been instances of misuse of the standard marks. During the last five years, the particulars of targets of enforcement raids vis-a-vis the actual numbers of raids conducted by BIS on firms misusing the BIS standard marks are given in Chart-6:

Chart -6: Year-wise targets and achievements of enforcement raids



It is evident from the data depicted above that BIS had not achieved the targets for conducting enforcement raids. Both the targets set and corresponding achievements reflected a downward trend with only 135 raids being conducted as against a low target of 200 raids in 2010-11. The average number of raids (150 per year) was inadequate in view of the fact that BIS had issued 32510 licences (including hallmarking) in respect of 924 standards and the number of licences was increasing. The fact that even the unusually low yearly targets had not been achieved was a cause for concern.

It was, however, observed that the enforcement system through raids had been reasonably effective. Following 780 raids conducted during 2006-07 to 2010-11, 629 court cases had been filed against defaulters and 51 court cases were decided (2010-11). In respect of 47 cases, the accused were penalized with imprisonment and fines and in two cases, appeals had been filed by BIS. The remaining two cases were decided against BIS.

BIS stated (May 2012) that there were many constraints for non-achievement of targets viz. shortage of manpower, engagement of inspecting officers in other works, difficulty in securing police protection in areas of Bihar and Jharkhand due to prevailing Maoist activities etc.

Recommendation

BIS should carry out its enforcement activities effectively by deploying requisite manpower.

1.22 Information technology

1.22.1 Website of BIS

The website of BIS, which can be accessed at **http://bis.org.in**, contains information regarding ISs. The site was developed in-house over a period of time, based on the inputs received from the various departments of BIS. Audit observed the following deficiencies in the web-related activities of BIS.

1.22.1.1 Lack of Web Policy

BIS did not have a web policy. No documentation was available with it on design, development, updation and maintenance of their website. Further, the lack of a web policy and the consequent absence of a content management policy resulted in several discrepancies in the contents of the website as stated further:

- Out of a total of 1186 links, only 70 *per cent* (831) of the links were functional, while 30 *per cent* of the links returned errors like 'not found' or 'no such host'.
- Several links led to wrong pages. For example, the links 'Past Vice President', 'Past Directors General' and 'History of Standardization' led to the 'Annual Reports' page, which in turn, did not have a link to go back to the home page.
- Some pages like 'Complaint related to BIS certified product/services of BIS' etc. were giving system generated errors.
- Some forms viz. 'register complaint relating to BIS certified product' accepted invalid data.
- The Hindi and English versions of the site were not similar. The Hindi version did not contain the main links.

1.22.1.2 Security Issues

- **Cross Site Scripting** – The site was vulnerable to Cross Site Scripting (also referred to as XSS), a vulnerability that allows an attacker to send malicious codes (usually in the form of *JavaS*cript) to another user.
- **ASP net Error message –** The website disclosed ASP.net error messages. These error messages might disclose sensitive information like the Web Server Version etc. This information could be used to launch further attacks.

BIS stated (May 2012) that though there was no web policy, the same was being attempted. Further, it was in the process of making necessary corrections and changes.

Recommendation

BIS should have a formal web policy and a well-structured website.

1.23 Manpower management

BIS had a sanctioned strength of 560 and 1576 posts in the scientific and non-scientific cadres respectively as of March 2011. The sanctioned strength, persons-in-position and the vacancy position during 2006-07 to 2010-11 were as per Table-15:

Table-15: Year-wise position of sanctioned strength, persons-in-position and vacancy position

Year	Scientific cadre				Non-scientific cadre			
	Sanctioned Strength	Persons- in-Position	Vacancies	Percentage of shortage of manpower	Sanctioned Strength	Persons- in-Position	Vacancies	Percentage of shortage of manpower
2006-07	486	444	42	9	1526	1395	131	9
2007-08	486	441	45	9	1526	1338	188	12
2008-09	486	419	67	14	1526	1286	240	16
2009-10	486	411	75	15	1526	1223	303	20
2010-11	560	436	124	22	1576	1200	376	24

In this connection, the following deficiencies were observed:

There was a shortage of manpower by nine to 22 *per cen*t and nine to 24 *per cent* in the scientific and non-scientific cadres respectively. As the activities of BIS had increased manifold since 1987, it could not adequately carry out its requisite functions due to the shortage of manpower.

1.23.1 Assessment of manpower requirement

Due to the lack of timely action in filling up of vacancies by BIS, 93 and 172 posts in its scientific and non-scientific cadres respectively, had lapsed during 2003. In order to assess the proper requirement of personnel as well as make future projections, BIS conducted a comprehensive review through an agency[14] in March 2005, which recommended increase in manpower by 20 to 25 *per cent*. BIS took up the matter with MoCAF&PD which resulted in the revival of 74 and 50 posts in the scientific and non-scientific cadres respectively (November 2010). MoCAF&PD directed (January 2009) BIS to conduct a work study of the organization to assess the manpower requirement for smooth functioning. After a year BIS decided (February 2010) to get the study conducted by a committee consisting of BIS officers and an officer from the Staff Inspection Unit (SIU) of the Ministry of Finance. The study was to be completed in three to four months, but could not be completed (May 2012) as the information sought by SIU was not furnished by BIS. Further, out of 124 vacant posts in the scientific cadre and 376 posts in the non-scientific cadre, BIS could issue (May 2012) appointment letters to only 80 candidates for its scientific cadre.

[14] A. F. Ferguson & Co.

Thus though the workload of BIS had increased and it was attributing most of its deficiencies to the shortage of manpower, action to increase its sanctioned strength or fill up its vacant posts was grossly inadequate. BIS stated (May 2012) that further action for filling up the vacancies in other cadres besides the scientific cadre, had also been initiated.

Recommendation

BIS should make sincere efforts to fill up the vacancies in all cadres to carry out its mandated activities effectively.

1.24 Internal audit

Internal audit is an independent appraisal function established within an organization to examine and evaluate its activities. Audit observed that there was no internal audit wing in BIS and the internal audit was being conducted through an agency. BIS had conducted corporate audit of 25 branch offices during June to December 2008. No follow-up action on the findings of the reports had been taken so far. Audit reports of 10 of these branch offices had not been scrutinized by BIS as of May 2012.

BIS stated (May 2012) that although there was no stipulation for annual corporate audit of Branch Offices and Regional Offices under the BIS Act, it had on its own volition, initiated corporate audits to ensure uniform application of certification procedures and identify deficiencies with a view to make systematic improvements.

The contention of BIS is not acceptable as the process of corporate audit initiated by BIS had not been completed so far and no action had been taken on the finding of the reports.

Recommendation

- *BIS may consider setting up its own internal audit wing.*

1.25 Conclusion

The Bureau of Indian Standards is a national standardisation body for the harmonious development of the activities of standardisation, marking and quality certification of goods. The Bureau had formulated 18222 standards, out of which 8894 product standards were amenable to certification, against which 32510 licences had been issued as of March 2011. The meetings of various committees viz. Advisory Committees, Divisional Councils and

Sectional Committees were not held periodically. There were considerable delays in formulation of standards at all stages. There was poor adoption of standards under the Product Certification Scheme. Despite being a quality assurance body, BIS was unable to perform its monitoring and inspection roles adequately as there were shortfalls in conducting surveillance visits, collection of factory and market samples, compliance visits after 'stop marking' etc. BIS took considerable time between drawal and testing of samples. There were shortfalls in achievement of targets fixed for the testing laboratories. A laboratory modernisation programme initiated in 2005 could not be completed even after a period of seven years. There were shortfalls in various activities under BIS's hallmarking and management system certification scheme. There was no formal web policy in BIS. Shortage of manpower continued to persist, although the activities of BIS were predominantly manpower-based.

Annex –I

Details of Division Councils, their Standards and Certifications (as on 31.3.2011)

(Refers to paragraphs 1.3, 1.6)

Sl. No.	Name of Division Council	No of Standards published	Amenable standards (Products)	Sample selected from Standards	Number of standards under certification	Number of licencees	Sample selected for certification
1.	Production and General Engineering (PGD)	2083	1439	22	30	147	1
2.	Civil Engineering (CED)	1801	600	23	181	6355	42
3.	Chemical (CHD)	1562	951	22	97	560	4
4.	Electrical (ETD)	1380	810	15	123	5629	37
5.	Food & Agriculture (FAD)	1885	1204	24	174	5299	30
6.	Electronics & Information Technology (LITD)	1433	467	16	1	8	0
7.	Mechanical Engineering (MED)	1161	558	13	89	2457	15
8.	Management and Systems (MSD)	171	3	3	5	1093	2
9.	Metallurgical Engineering (MTD)	1611	655	17	73	9601	60
10.	Petroleum, Coal and Related Products (PCD)	1383	768	17	52	552	4
11.	Transport Engineering (TED)	1085	425	18	16	294	1
12.	Textile (TXD)	1131	34	10	32	317	2
13.	Water Resources (WRD)	433	11	8	1	5	1
14.	Medical Equipment & Hospital Planning (MHD)	1103	969	6	50	193	1
Total		**18222**	**8894**	**214**	**924**	**32510**	**200**

Annex-II

Details of Meetings of Division Councils and Sectional Committees

(Refers to paragraph 1.13.2)

(As on 31.3.2011)

	Total no. of Councils/ Committees	No of meetings required to be conducted during 2006-07 to 2010-11	Meetings actually held during 2006-07 to 2010-11	Shortfall	Percentage shortfall
Division Councils	14	70	53	17	24
Sectional Committees					
Civil Engineering (CED)	35	175	104	71	41
Chemical (CHD)	20	100	64	36	36
Electrical (ETD)	37	185	141	44	24
Food & Agriculture (FAD)	25	125	108	17	14
Electronics & Information Technology (LITD)	20	100	63	37	37
Mechanical Engineering (MED)	27	135	60	75	56
Medical Equipment & Hospital Planning (MHD)	22	110	57	53	48
Management and Systems (MSD)	8	40	25	15	38
Metallurgical Engineering (MTD)	24	120	92	28	23
Petroleum, Coal and Related Products (PCD)	10	50	38	12	24
Production and General Engineering (PGD)	28	140	52	88	63
Transport Engineering (TED)	15	75	63	12	16
Textile (TXD)	24	120	38	82	68
Water Resources (WRD)	17	85	72	13	15
Sectional Committees (Total)	**312**	**1560**	**977**	**583**	**37**

Annex-III

Details of gaps between Division Council/Sectional Committee meetings

(Refers to paragraph 1.13.2)

Division Council meetings

S. No.	Name of Division Council	Date of holding of last three meetings	Gap between two meetings (in months)
1.	CED	07.02.2007	--
		03.10.2007	8
		24.04.2009	19
		06.09.2010	16
2.	CHD	22.03.2005	--
		14.06.2006	15
		11.11.2008	29
		20.10.2010	24
3.	ETD	11.04.2008	--
		09.01.2009	9
		13.03.2009	8
		01.11.2010	8
4.	FAD	20.02.2006	--
		06.02.2007	12
		05.03.2008	12
		21.06.2010	25
5.	LITD	26.06.2006	-
		08.05.2009	35
		21.12.2010	19
6.	MED	27.11.2006	--
		14.03.2008	16
		24.4.2009	13
		09.06.2010	14
7.	MHD	03.02.2006	--
		13.09.2007	19
		15.01.2009	15
		11.02.2010	13
8.	MSD	16.09.2004	--
		08.02.2006	16
		24.07.2009	13
		26.08.2010	13

S. No.	Name of Division Council	Date of holding of last three meetings	Gap between two meetings (in months)
9.	MTD	14.03.2007	--
		28.04.2008	13
		26.06.2009	14
		16.07.2010	13
10.	PCD	10.03.2006	--
		19.04.2007	12
		10.04.2008	12
		02.08.2010	21
11.	PGD	01.02.2007	--
		07.12.2007	10
		12.03.2009	15
		29.10.2010	20
12.	TED	18.03.2009	--
		07.12.2009	9
		09.07.2010	7
13.	TXD	12.06.2007	--
		25.04.2008	10
		24.02.2010	22
14.	WRD	17.11.2006	--
		25.03.2008	16
		10.06.2010	26

Sectional Committee meetings

Name of Sectional Committee	Gap between holding of two meetings
CHD	05 to 27 Months
ETDC	04 to 53 Months
WRD	11 to 30 Months
MTD	05 to 34 Months

Annex-IV

Delays in review of standards

(Refers to paragraph 1.13.5)

Name of Division	No. of standards not reviewed	Review due in	Month of actual review	Period of pendency (in months)	Reasons furnished by BIS
FAD	4	2006-07	March 2010	34	Due to oversight
	3	2006-07	September 2009	29	Due to oversight
	45	2006-07	March 2009	23	Due to oversight
	24	2006-07	April 2009	24	Meeting could not be convened
	1	2006-07	April 2008	12	Meeting could not be convened
	25	2006-07	January 2008	9	Due to oversight
	56	2006-07	November 2007	7	Meeting could not be convened
CHD	1	2008-09	Not reviewed so far (June 2012)		In view of comments received on the standard, the same could not be reviewed
	1	2008-09	June 11	26	Reaffirmation was not done during 2008-09 however, reaffirmed in 13 meeting in June 2011.
	3	2009-10	June 11	13	Meeting could not be convened
	50	2010-11	June 11	13	Meeting could not be convened
	1	2010-11	Not reviewed so far (June 2012)		In view of comments received on the standard, the same could not be reviewed
	1	2010-11	Not reviewed so far (June 2012)		Meeting could not be convened
	1	2010-11	Not reviewed so far (June 2012)		In view of comments received on the standard, the same could not be reviewed
	1	2010-11	Not reviewed so far (June 2012)		Meeting could not be convened
PGD	227	2007-08	2008-09	12	Shortage of manpower, less number of meetings held etc.
Total	**444**				

Annex-V-A

Delays in gazette notification of formulation of ISs

(Refers to paragraph 1.13.7)

Sl. No.	IS Number	Date of publication of standard	Date of gazette notification of standard	Time taken in gazette notification (months)
1.	2190:2010	November 2010	March 2011	4
2.	15682:2006	September 2006	November 2006	2
3.	15821:2008	October 2008	February 2009	4
4.	15877:2010	January 2010	August 2010	7
5.	15878:2010	January 2010	August 2010	7
6.	15833:2009	January 2009	March 2009	2
7.	15834:2008	December 2008	March 2009	3
8.	3370 (PART1):2009	June 2009	October 2009	16
9.	3370 (PART 2):2009	August 2008	October 2009	14
10.	15883(PART1):2009	July 2009	October 2009	3
11.	IS 4457:2007	June 2007	January 2008	7
12.	IS 4971:2007	June 2007	January 2008	7
13.	IS 710:2010	January 2010	March 2011	14
14.	11951:2009	November 2009	February 2010	3
15.	14480:2006	May 2006	October 2006	5
16.	9804 (PART 1):2009	May 2009	March 2010	10
17.	15841:2009/ISO 11634:1996	March 2009	March 2010	12
18.	15842:2009/ISO 14573:2002	May 2009	March 2010	10
19.	15843 (PART 1):2009/ISO 10958	June 2009	March 2010	9
20.	15726:2006/13715 :2000	October 2006	February 2007	4
21.	IS 15705:2006/ISO 23429:2009	October 2006	January 2007	3
22.	IS 15744:2007	June 2007	December 2007	6
23.	IS 15745:2007	June 2007	December 2007	6
24.	IS 15746:2007	June 2007	December 2007	6
25.	IS 15747:2007	June 2007	December 2007	6

Sl. No.	IS Number	Date of publication of standard	Date of gazette notification of standard	Time taken in gazette notification (months)
26.	IS 3082:2008	April 2008	June 2008	2
27.	IS 15777:2008	June 2008	August 2008	2
28.	IS 15854:2009	February 2009	September 2009	7
29.	IS 15837:2009	November 2009	January 2010	2
30.	IS 15864:2009	September 2009	November 2009	2
31.	IS 15809:2008	October 2008	January 2009	3
32.	IS 15447:2008	January 2009	November 2009	10
33.	IS 15810:2008	October 2008	January 2009	3
34.	IS 15073:2008	October 2008	January 2009	3
35.	IS 15779:2007	November 2007	January 2008	2
36.	IS 5182 PART 23: 2006	March 2006	May 2006	2
37.	IS 15656:2006	May 2006	September 2006	4
38.	IS 14025:2006	September 2009	January 2010	4
39.	15827:2009	January 2009	November 2009	10
40.	15831:2009	July 2008	November 2009	16
41.	15828:2009	May 2009	September 2011	28
42.	15829:2009	January 2009	November 2009	10
43.	15830:2009	January 2009	November 2009	10
44.	15857:2009	June 2009	September 2011	27
45.	15863:2009	June 2009	September 2011	27
46.	15795:2008/ ISO 2971:1998	May 2008	September 2008	4
47.	15805(Part 1):2008	April 2008	November 2009	19
48.	15743:2007	June 2007	December 2007	6
49.	10221:2008	November 2008	February 2009	3
50.	15893:2010/ISO 10713	October 2010	April 2011	6
51.	12573:2010	February 2010	August 2010	6
52.	15280:2009	January 2009	April 2009	3
53.	3600(Part3):2009 Part3	April 2009	September 2011	29
54.	15865:2009	February 2009	Feb. 2010	12
55.	15765:2008	April 2008	June 2008	2

Sl. No.	IS Number	Date of publication of standard	Date of gazette notification of standard	Time taken in gazette notification (months)
56.	15756:2007/10275 :1993	January 2007	March 2007	2
57.	1528(Part 16):2007/ISO 8894-2:1990 Part 16	September 2007	July 2008	10
58.	1528 (Part 21):2007/ISO 8894-1:1987 Part21	September 2007	July 2008	10
59.	7512:2006	June 2006	August 2006	2
60.	8910:2010/ISO 504:1992	February 2010	September 2010	7
61.	8328:2007	January 2007	March 2007	2
62.	15876:2009	April 2009	September 2009	5
63.	12832:2010	September 2010	February 2011	5
64.	15846:2010	March 2010	August 2010	5
65.	3573:2010	January 2010	August 2010	7
66.	13749:2009	August 2009	December 2009	4
67.	10694(part 8):2009	July 2009	Mar. 2010	8
68.	14363:2009/ ISO 11243:1994	March 2009	October 2009	7
69.	8450:2009/ ISO 9519:1990	April 2009	September 2009	5
70.	4602:2009	August 2009	May 2010	9
71.	6685:2009	March 2009	September 2009	6
72.	14553:2008	July 2008	September 2008	2
73.	6218:2008	December 2008	April 2009	4
74.	7451(Part1):2007/I SO 2710-1:2000	September 2006	February 2007	5
75.	10478:2007/ISO 6519:1993	August 2007	October 2007	2
76.	12978:2006/ISO 8667:1992	January 2006	March 2006	2
77.	4731:2009	April 2009	October 2009	6
78.	9401 (PART 1): 2009	May 2010	July 2010	2
79.	4453:2009	August 2009	November 2009	3

Annex-V-B

Delays in gazette notifications of withdrawal of standards

(Refers to paragraph 1.13.7)

Sl. No.	Year/Name of Division	Particulars of standard withdrawn	Date of withdrawal	Date of gazette notification published	Time taken in publication of gazette notification (in months)
1.	2008-09/LITD	IS 5608(Pt 5):2002	01-07-2008	21-02-2011	32
2.		IS 5608(Pt 6):2002	01-07-2008	21-02-2011	32
3.		IS 12598:1989	01-07-2008	21-02-2011	32
4.		IS 13176:1991	01-07-2008	21-02-2011	32
5.	2010-11/LITD	IS 15114:2002	20-05-2010	21-02-2011	9
6.		IS 15115:2002	20-05-2010	21-02-2011	9
7.		IS 5000(OD 01) :1969	20-05-2010	21-02-2011	9
8.		IS 5000(OD 04) :1969	20-05-2010	21-02-2011	9
9.		IS 5000(OD 05) :1969	20-05-2010	21-02-2011	9
10.		IS 5000(OD 06):1969	20-05-2010	21-02-2011	9
11.		IS 5000(OD 07):1969	20-05-2010	21-02-2011	9
12.		IS 5000(OD 08):1979	20-05-2010	21-02-2011	9
13.		IS 5000(OD 09):1986	20-05-2010	21-02-2011	9
14.		IS 5000(OD 10):1971	20-05-2010	21-02-2011	9
15.		IS 5000(OD 11):1971	20-05-2010	21-02-2011	9
16.		IS 5000(OD 12):1971	20-05-2010	21-02-2011	9
17.		IS 5000(OD 13):1971	20-05-2010	21-02-2011	9
18.		IS 5000(OD 14):1971	20-05-2010	21-02-2011	9
19.		IS 5000(OD 15):1973	20-05-2010	21-02-2011	9
20.		IS 5000(OD 16):1973	20-05-2010	21-02-2011	9
21.		IS 5000(OD 17):1974	20-05-2010	21-02-2011	9
22.		IS 5000(OD 18):1974	20-05-2010	21-02-2011	9
23.		IS 5000(OD 19):1978	20-05-2010	21-02-2011	9
24.		IS 5000(OD 20):1978	20-05-2010	21-02-2011	9
25.		IS 5000(OD 21):1979	20-05-2010	21-02-2011	9
26.		IS 5000(OD 23):1978	20-05-2010	21-02-2011	9
27.		IS 5000(OD 25):1978	20-05-2010	21-02-2011	9
28.		IS 5000(OD 26):1971	20-05-2010	21-02-2011	9
29.		IS 5000(OD 27):1978	20-05-2010	21-02-2011	9
30.		IS 5000(OD 28):1978	20-05-2010	21-02-2011	9
31.		IS 5000(OD 29):1979	20-05-2010	21-02-2011	9

Sl. No.	Year/Name of Division	Particulars of standard withdrawn	Date of withdrawal	Date of gazette notification published	Time taken in publication of gazette notification (in months)
32.		IS 5000(OD 31):1981	20-05-2010	21-02-2011	9
33.		IS 5000(OD 32):1981	20-05-2010	21-02-2011	9
34.		IS 5000(OD 33):1981	20-05-2010	21-02-2011	9
35.		IS 5000(OD 34):1981	20-05-2010	21-02-2011	9
36.		IS 5000(OD 35):1981	20-05-2010	21-02-2011	9
37.		IS 5000(OD 36):1981	20-05-2010	21-02-2011	9
38.		IS 5000(OD 37):1982	20-05-2010	21-02-2011	9
39.		IS 5000(OD 38):1984	20-05-2010	21-02-2011	9
40.		IS 5000(OD 39):1986	20-05-2010	21-02-2011	9
41.		IS 5000(OD 40):1986	20-05-2010	21-02-2011	9
42.		IS 5000(OD 41):1986	20-05-2010	21-02-2011	9
43.		IS 5000(OD 42):1986	20-05-2010	21-02-2011	9
44.		IS 5000(OD 43):1986	20-05-2010	21-02-2011	9
45.		IS 5000(OD 44):1986	20-05-2010	21-02-2011	9
46.		IS 5000(OD 45):1986	20-05-2010	21-02-2011	9
47.		IS 5000(OD 46):1986	20-05-2010	21-02-2011	9
48.		IS 5000(OD 47):1986	20-05-2010	21-02-2011	9
49.	2009-10/MHD	IS 4089: 1967	29-09-2009	02-02-2010	4
50.		IS 6986: 1973	-DO-	-DO-	4
51.		IS 5588: 1970	-DO-	-DO-	4
52.		IS 13069: 1991	-DO-	-DO-	4
53.	2010-11/MHD	IS 5110: 1969	10-11-2009	25-06-2010	7
54.		IS 5226: 1989	-DO-	-DO-	7
55.		IS 5231: 1990	-DO-	-DO-	7
56.		IS 5233: 1990	-DO-	-DO-	7
57.		IS 7757:1975	-DO-	-DO-	7
58.		IS 7783: 1981	-DO-	-DO-	7
59.		IS 8158: 1976	-DO-	-DO-	7
60.		IS 8163: 1976	-DO-	-DO-	7
61.		IS 8774: 1985	-DO-	-DO-	7
62.		IS 9173: 1979	-DO-	-DO-	7
63.		IS 9318: 1987	-DO-	-DO-	7
64.		IS 9982: 1981	-DO-	-DO-	7
65.		IS 10395: 1983	-DO-	-DO-	7

Sl. No.	Year/Name of Division	Particulars of standard withdrawn	Date of withdrawal	Date of gazette notification published	Time taken in publication of gazette notification (in months)
66.	2010-11	IS 10849: 1984	-DO-	-DO-	7
67.	2009-10/TED	IS 10289: 1982	04-06-2009	15-07-2009 (Sent date)	22 (upto 31.3.2011)
68.		IS 10841:1984	04-06-2009	- DO -	22 (upto 31.3.2011)
69.		IS 13493:1992	04-06-2009	- DO -	22 (upto 31.3.2011)
70.		IS 2646:1986	09-06-2009	- DO -	22 (upto 31.3.2011)
71.		IS 5977:1981	09-06-2009	- DO -	22 (upto 31.3.2011)
72.		IS 7528:1974	09-06-2009	- DO -	22 (upto 31.3.2011)
73.		IS 3404:1979	04-06-2009	- DO -	22 (upto 31.3.2011)
74.		IS 4384:1967	09-06-2009	- DO -	22 (upto 31.3.2011)
75.		IS 10548:1983	09-06-2009	- DO -	22 (upto 31.3.2011)
76.		IS 13915:1994	09-06-2009	- DO -	22 (upto 31.3.2011)
77.		IS 9212:1979	22-01-2009	14-20 March 2010	26 (upto 31.3.2011)
78.		IS 13507:1992	22-01-2009	- DO -	26 (upto 31.3.2011)
79.		IS 7699:1975	22-01-2009	- DO -	26 (upto 31.3.2011)
80.		IS 1133:1985	22-01-2009	- DO -	26 (upto 31.3.2011)
81.		IS 11734:1986	22-01-2009	- DO -	26 (upto 31.3.2011)
82.		IS 11735:1986	22-01-2009	- DO -	26 (upto 31.3.2011)
83.	2009-10/MTD	IS 1137:1990	26-06-2009	20.02.2010	8
84.		IS 1528(Pt 8):1974	-DO-	-DO-	8
85.	2010-11/MTD	IS 6331:1987	16-07-2010	23.10.2010	3
86.	2008-09/CHD	IS 3025:1964	11.11.2008	18.01.2010	14
87.	2009-10/CHD	IS/ISO 14041:1998	20 08 2010	22 11 2010	3
88.		IS/ISO 14042:2000	20 08 2010	22 11 2010	3
89.		IS/ISO 14043:2000	20 08 2010	22 11 2010	3
90.	2010-11/CHD	IS 9401 (Part 15/Sec 1) :1993	31.03.2010	20.08.2010	5
91.	2006-07/PGD	IS 8692:1978	31.05.2006	29.08.2006	3
92.	2009-10/PGD	IS 14439(Part 3):1998	10.11.2009	17.03.2010	4

Sl. No.	Year/Name of Division	Particulars of standard withdrawn	Date of withdrawal	Date of gazette notification published	Time taken in publication of gazette notification (in months)
93.		IS 11065(Part 1):1984	09.07.2010	18.04.2011	9
94.		IS 11065(Part 2):1985	09.07.2010	18.04.2011	9
95.		IS 15057:2001	09.07.2010	18.04.2011	9
96.	PCD 2007-08/PCD	IS 15439:2004/ ISO 1994:1976	19 April 2007	December 2007	8
97.		IS 15440:2004 /ISO 9931:1991 Coal	-DO-	-DO-	8
98.	2010-11/PCD	IS 5188:1985	2.08.2010	March 2011	8
99.	2006-07/FAD	IS 1667: 1981	28.07.2006	25.03.2010	44
100.		IS 7464: 1988	28.07.2006	25.03.2010	44
101.		IS 7999: 1998 /ISO 5494: 1978	28.07.2006	25.03.2010	44
102.		IS 8574: 1977	28.07.2006	25.03.2010	44
103.		IS 8806: 1978	28.07.2006	25.03.2010	44
104.		IS 9194: 1979	28.07.2006	25.03.2010	44
105.		IS 10524: 1982 /ISO 3983: 1977	28.07.2006	25.03.2010	44
106.		IS 10834: 1984	28.07.2006	25.03.2010	44
107.	2007-08/FAD	IS 1613: 1960	December 2007	27.11.2008	12
108.		IS 6387: 1987	December 2007	27.11.2008	12
109.	2010-11/FAD	IS 1509: 1972	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
110.		IS 1705: 1972	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
111.		IS 2144:1962	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
112.		IS 2145: 1962	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
113.		IS 2146:1962	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
114.		IS 3162:1965	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)

Sl. No.	Year/Name of Division	Particulars of standard withdrawn	Date of withdrawal	Date of gazette notification published	Time taken in publication of gazette notification (in months)
115.		IS 5064:1980	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
116.		IS 7061:1973	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
117.		IS 7247 (part-2):1974	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
118.		IS 9599:1980	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
119.		IS 9967:1997/ISO 4099:1994	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
120.		IS 10670:1983	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
121.		IS 11063:1984	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
122.		IS 11135:1984	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
123.		IS 13399:1992	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
124.		IS 13574:1992	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
125.		IS 14443 (part-1):1997	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
126.		IS 14825:2000/ISO 5983:1997	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)
127.		IS 14830:2000/ISO 6496:1983	21.06.2010	29.03.2011 (sent for gazetting)	9 (as of 31.03.2011)

Annex-VI

Mandatory product certification with 'nil' licences

(Refers to paragraph 1.14.2)

Sl. No.	IS Number	Subject	No. of licencee
1.	IS 6452	High alumina cement for structural use	0
2.	IS 6909	Super sulphated cement	0
3.	IS 8043	Hydrophobic Portland Cement	0
4.	IS 12600	Low heat Portland Cement	0
5.	IS 1342	Oil pressure stoves	0
6.	IS 2787	Multi-burner oil pressure stoves	0
7.	IS 10109	Oil pressure stove, offset burner type	0
8.	IS 7142	Welded low carbon steel gas cylinder for low pressure liquefiable gases not exceeding 5 litre water capacity	0
9.	IS 7302	Valve fittings for gas cylinder valves for use with breathing apparatus	0
10.	IS 8776	Valve fittings for use with liquefied petroleum gas cylinder up to and including 5 litre water capacity	0
11.	IS 13620	Specification for fusion bonded epoxy coated reinforcing bars	0

Annex –VII-A

Testing facilities with BIS or outside laboratories

(Refers to paragraph 1.17.1 (a)

Sl. No.	IS Number	IS Subject (Mandatory Products)	Testing facilities in BIS/Outside laboratories	No. of licencee
1.	7302	Valve fittings for gas cylinder valves for use with breathing apparatus	Nil	Nil
2.	7620	Diagnostic Medical X-Ray Equipment	Nil	28
3.	13620	Specification for fusion bonded epoxy coated reinforcing bars	Nil	Nil
4.	15100	Multifunction Valve Assembly for Permanently Fixed Liquefied Petroleum Gas (LPG) Containers for Automotive Use	Nil	9
Sub Total				**37**
IS Subject (Other than Mandatory products)				
1.	IS 4381 : 1967	Specification for Pathological Microscope	Nil	15
2.	11378-2002	Anaesthetic Machines for Use with Humans	Nil	8
3.	IS 9020 : 2002	Power Threshers - Safety Requirements	Nil	54
Sub Total				**77**

Annex –VII-B

Partial testing facilities with BIS and no testing facility with outside laboratories

(Refers to paragraph 1.17.1 (b)

S.No.	IS Number	IS Subject	No. of licencees
1.	3224	Valve fittings for compressed gas cylinder excluding liquefied petroleum gas cylinder	12
2.	IS 3745 - 0 : 1978	Yoke type valve connections for small medical gas cylinders	3
3.	IS 7285 - 0 : 1988-Pt.1&2	Refillable Seamless steel gas cylinders – Specification – Part 1: Normalized Steel Cylinder	20
4.	IS 8776 : 1988	Valve fittings for use with liquefied petroleum gas cylinder up to and including 5 liter water capacity	No licencee
5.	14899-2000	Liquefied Petroleum Gas (LPG) Containers for Automotive Use – Specification	10
6.	14300 - 0 : 1995	Neem Based EC Containing Azadirachtin	8
7.	IS 13422 : 1992	Disposable Surgical Rubber Gloves	16
8.	15490 - 0 : 2004	Cylinders for On-Board Storage of Compressed Natural Gas As a Fuel for Automotive Vehicles	13
9.	4151-1993	Protective Helmets For Motorcycle Riders.	103

Annex –VIII-A

Testing of samples by laboratories even after the expiry of recognition period

(Refers to paragraph 1.18)

S. No.	Name of the recognized laboratories	Date of expiry of the recognition	Date of renewal of recognition	Period during which laboratories continue to test samples without any renewal by the BIS (in months)
1.	Yadav Measurements Pvt. Ltd. Udaipur	01.06.2007	04.07.2007	1
2.	Yadav Measurements Pvt. Ltd. Udaipur	01.06.2010	11.09.2010	3
3.	Fluid control research institute Palakkad	01.12.2006	20.06.2007	7
4.	Fluid control research institute Palakkad	01.12.2009	07.01.2011	13
5.	Electronics Regional Test laboratories (E) Kolkata	01.04.2006	5.12.2006	8
6.	Electronics Regional Test laboratories (E) Kolkata	01.04.2009	20.08.2009	5
7.	Geo chem. Laboratories	01.06.2005	23.1.2007	20
8.	CEPC laboratory & technical division	15.12.2007	8.12.2008	12
9.	Bangalore test house	01.11.2007	10.03.2008	4
10.	Monarch Bio tech Pvt. Ltd	04.10.2010	15.02.2011	4
11.	Footwear design and development institute	01.06.2007	27.12.2007	6
12.	SGS India Chennai	15.02.2007	25.11.2007	10
13.	Sipra laboratories ltd	01.04.2009	20.07.2011	28
14.	Bhagavathi Ana Labs Ltd	01.04.2009	20.08.2009	5
15.	ATTIRA Ahmedabad	14.10.2010	19.10.2011	12
16.	MSME Coimbatore	06.12.2009	15.07.2011	19
17.	Gujrat Test House	19.05.2006	19.09.2008	28
18.	Gujrat Test House	19.05.2009	29.10.2009	5
19.	NCCBM ballabgarh	04.05.2006	02.02.2007	9
20.	NCCBM ballabgarh	04.05.2009	09.04.2010	11

Annex –VIII-B

Shortfalls in surveillance visits of recognized laboratories

(Refers to paragraph 1.18)

S. No.	Name of the recognized laboratories	Period of recognition	No. of surveillance visits required to be conducted by BIS	Actual no. of surveillance visits conducted by BIS	Shortfall in carrying out the surveillance visits
1.	Yadav Measurements Pvt. Ltd. Udaipur	01.06.2004 to 01.06.2007	2	Nil	2
2.	Fluid control research institute Palakkad	01.12.2000 to 01.12.2003	2	1	1
		01.12.2003 to 01.12.2006	2	Nil	2
		01.12.2006 to 01.12.2009	2	Nil	2
3.	Electronics Regional Test laboratories (E) Kolkata	01.04.2003 to 01.04.2006	2	1	1
		01.04.2006 to 01.04.2009	2	1	1
4.	NSIC Rajkot	08.06.2001 to 08.06.2004	2	Nil	2
		08.06.2007 to 08.06.2010	2	Nil	2
5.	MSME Coimbatore	06.12.2006 to 06.12.2009	2	Nil	2
6.	Regional Solar Energy Testing Centre	01.07.2003 to 01.07.2006	2	1	1
		01.07.2006 to 01.07.2009	2	1	1
7.	Gujrat Test House	19.05.2003 to 19.05.2006	2	1	1
		12.09.2008 to 12.09.2011	2	Nil	2

S. No.	Name of the recognized laboratories	Period of recognition	No. of surveillance visits required to be conducted by BIS	Actual no. of surveillance visits conducted by BIS	Shortfall in carrying out the surveillance visits
8.	NCCBM Ballabgarh	04.05.2000 to 04.05.2003	2	Nil	2
		11.12.2003 to 11.12.2006	2	Nil	2
		08.01.2007 to 08.01.2010	2	Nil	2
9.	Geo chem. Laboratories pvt. Ltd	22.05.2002 to 22.05.2005	2	Nil	2
		23.01.2007 to 23.05.2010	2	1	1
10.	CEPC laboratories and Technical Division	01.12.2004 to 01.12.2007	2	Nil	2
		08.12.2008 to 08.12.2011	2	1	1
11.	Bangalore test house	01.11.1998 to 01.11.2001	2	Nil	2
12.	Monarch bio tech Pvt. Ltd	04.10.2007 to 04.10.1010	2	1	1
13.	Footwear design and development institute	22.05.1998 to 22.05.2001	2	Nil	2
		27.06.2002 to 27.06.2005	2	1	1
		27.12.2007 to 27.12.2010	2	1	1
14.	International testing centre	01.8.2001 to 01.8.2004	2	1	1
		01.07.2005 to 01.07.2008	2	1	1
		07.05.2008 to	2	Nil	2

S. No.	Name of the recognized laboratories	Period of recognition	No. of surveillance visits required to be conducted by BIS	Actual no. of surveillance visits conducted by BIS	Shortfall in carrying out the surveillance visits
		07.05.2011			
15.	SGS India Ltd Chennai	17.01.2001 to 17.01.2004	2	1	1
		08.02.2005 to 08.02.2008	2	Nil	2
		25.11.2008 to 25.11.2011	2	Nil	2
16.	FICCI Research and Analysis Centre	11.06.1999 to 11.06.2002	2	1	1
		11.06.2002 to 24.03.2005	2	1	1
17.	Sipra laboratories Ltd	14.03.2006 to 14.03.2009	2	1	1
18.	Bhagavati Ana laboratories Ltd	01.04.2006 to 01.04.2009	2	1	1
Total			**70**	**18**	**52**