

STRATEGIC ROAD MAP

CHEMICAL DIVISION COUNCIL (CHDC)

BIS is the National Standard Body of India established under the BIS Act 2016 for the harmonious development of the activities of standardization, marking and quality certification of goods and for matters connected therewith or incidental thereto. BIS has been providing traceability and tangibility benefits to the national economy in a number of ways – providing safe reliable quality goods; minimizing health hazards to consumers; promoting exports and imports substitute; control over proliferation of varieties etc. through standardization, certification and testing.

1. EXECUTIVE SUMMARY

Chemical Division Council (CHDC) is one of the key Division Councils in BIS which is engaged in standardization through its 25 Sectional Committees in diversified fields such as Chemicals and Chemical products including Photographic materials, Electroplating chemicals, Paints and related products, Glass, Ceramic wares, Soaps and Other Surface Active Agents, Lac and Lac Products, Industrial Gases, Explosives and Pyrotechnics, Water Quality for industrial purposes, Thermal Insulation, and Nuclear Materials; including nano materials and standards for synthetic nano materials, Paper, Stationery items, Leather, Leather Products, Footwear and Brushware, Occupational Health, Safety, Environmental Management, Environment Protection, Waste Management, aspects of sustainability relevant to environment, and Chemical Hazards. CHDC has developed more than 1800 standards till date.

2. INTRODUCTION

The chemical division council has so far formulated around 200 Indian standards on terminology, methods of sampling and tests (including general methods) code of practices and specification for inorganic chemicals. Likewise, various Indian standards for Ceramic raw materials, Whiteware, all types of ceramic tableware and Ceramic coated metal ware have been developed. Now, the main focus would be on developing new standards on Fine/Technical/Advanced Ceramics.

The glassware sectional committee formulated many standards for terminology, method of sampling and test; and specification for glass including, its raw material, glassware, processed glass, electrical and electronic visual displays, laboratory ware, including thermometer,

hydrometers, etc. This committee has now identified Specialty glasses as a new emerging area for standardization. The paper tissue products form an important and growing market for single-use disposable hygiene and industrial products. Hence, paper products sectional committee which has developed many test methods for testing of paper products is planning to take up standardization on test methods of tissue products in future. Besides paper, paper packaging is also a core area of standardization under CHDC which will be taking up standardization on paper cups for serving hot and cold beverages. In the field of paints, the committee has recognized the nano modified paints and polyurethane based protective on pipelines as new emerging area for Standardization. The use of nano additives in the paint applications have shown very effective results. Keeping in mind the pollution related to use of crackers, the committee on explosives has identified Green Firecrackers as a new area of standardization along with various standards on different types of detonators and associated accessories such as electronic detonator, shock-tube detonator, cord relays and on bulk explosives. In view of scarcity of water and huge need of water by thermal power plants, the environment protection committee has targeted to take up standardization on guidelines for wastewater treatment and reuse in thermal power plants. The committee is also going to take up subject like performance evaluation of treatment technologies for water reuse systems based on Life Cycle Cost, cost analysis in planning of decentralized wastewater treatment and/or reuse.

3. BUSINESS ENVIRONMENT OF CHDC

The following political, economic, technical, regulatory, legal and social dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of CHDC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

The sectional committees under CHDC have for a long time been the ongoing subject of numerous regulatory activities. This has led, for example, to a considerable reduction/elimination of the use of certain heavy metal compounds in paints and coating materials but, on the other hand, also to an ongoing need for research and development. Keeping in view the adverse impact of VOC (Volatile organic compound) to human health and environment the committee is planning to limit the VOC content in all paints Standard.

India is totally dependent on import of Rare Earths to meet its needs and rare earths are used in critical technological areas like nuclear energy, space technology, defence equipments etc. Hence, it is intended to develop standards on rare earth which will be helpful to reduce discrepancies or trade disputes caused by the inconsistency in understanding of rare earth metals and their alloys. This would benefit India as well as India imports Rare Earths to meet its needs.

There is an increasing demand for an alternative to disposable plastic cups and paper cups have now become the best alternative to plastic cups. Paper cups are made using natural substances and are hundred percent recyclable if segregated properly, therefore help in reducing the carbon footprint. Hence, standardization on paper cups would be the key focus.

CHDC is dealing with Circular Economy and is committed to work in harmony with the global standardization in this field. Environmental labelling, Product Category Rules, Carbon Footprint and Water Footprint and Circular Economy have been identified as the most important field of standardization for the upcoming years. The focus will be on engaging more members to take part in standardization in this important area. It has also been decided to formulate sector specific Indian Guideline standards for implementing IS/ISO 14001 Environmental Management System with a view to provide guidance especially to the MSME units.

As microplastic pollution is an emerging issue of global concern due to evidence of microplastic entering in marine food chain which can affect human health adversely. So the focus would be on developing standards on sampling of microplastics and fibres in water. Ocean acidification is an emerging issue due to increased addition of carbon dioxide content in ocean water which is leading to lowering of pH and affecting marine ecosystem. Hence, there is plan to formulate standard on guidance on sampling for the parameters of the oceanic carbon dioxide system so that it can be timely monitored.

4. EXPECTATIONS FROM THE WORK OF THE CHDC

- One of the main focus areas of the sectional committees under CHDC is to revise Indian Standards for which Quality Control Orders (QCOs) are being issued as per latest technological advancements.
- Active participation by all relevant stakeholders at national level.

- Regularly review Indian Standards to ensure that they represent current industrial practices and technologies and are in line with the global practices.
- Rapid reaction to new market requirements and to the development of new products standards requiring new testing procedures or new testing equipment to avoid the creation of conflicting or contradicting testing procedures at industry level.
- to ensure that the standards fulfil societal requirements with respect to health, environmental protection, material and product safety and quality;
- to ensure that the CHDC standards are well known, readily available and widely used;
- Sustainability and Green manufacturing to be addressed in standards being formulated by Sectional committees.
- Gender neutrality to be addressed in standards being formulated by Sectional committees
- Recognition of committee members actively involved in standard formulation activity.

5. STAKEHOLDER REPRESENTATION

Categories of relevant stakeholders for CHDC are:

- Industry (manufacturers of products, manufacturers of raw materials)
- Customers (industrial users and Consumers)
- Governments and public authorities (in view of legislation and as user);
- Non Governmental Organizations (concerning environmental, health and safety aspects).

Presently it is not felt that a specific stakeholder lacks in representation.

6. STRATEGIES FOR ACHIEVEMENT OF OBJECTIVES OF THE CHDC

6.1 Identified strategies to achieve the CHDC's defined objectives

- Continuous identification of industry and user needs.
- Prioritization of standardization needs as an essential part of delivering the right standards to the market in a timely manner.
- Maintaining a scope and structure within CHDC that is conducive to the efficient development of standards.
- Increasing the use of remote communication tools to facilitate and accelerate standards development work.

- Close cooperation and collaboration with ISO to follow uniform practices globally.
- Encourage the participation of stakeholders not yet active.
- Attract new experts from traditional and non-traditional fields.
- Promoting the use of standards developed by CHDC.