सत्यमेव जयते

GOVERNMENT OF INDIA
MINISTRY OF CONSUMER AFFAIRS,
FOOD & PUBLIC DISTRIBUTION
DEPARTMENT OF CONSUMER AFFAIRS

EXECUTIVE SUMMARY AND RECOMMENDATIONS OF THE COMMITTEE ON THE PESTICIDES RESIDUE IN PACKAGED DRINKING WATER AND PACKAGED NATURAL MINERAL WATER

VIII RECOMMENDATIONS

The reported shortcomings in packaged water led to the formulation of this Committee and gave it an opportunity to look into various aspects of standards formulation, certification and testing. The recommendations, which emerge from this study, are summed up in the following paragraphs. Some of them have also been mentioned in earlier chapters.

A. STANDARD FORMULATION

1. These two standards on Packaged Drinking Water were formulated by deriving assistance from Codex and WHO guidelines. At that time Codex had not yet agreed upon the relevant test method for detection and determination of pesticide residues. Hence the FAD 14 Committee decided to adopt the test method standard established by another technical committee of BIS, for pesticides residues in fruits, vegetables and soils. These standard test methods were not specifically meant for drinking water. In the normal course these standards were due for review in 2003 and in all likelihood the Sectional Committee would have derived assistance from the test methods now available. Hence, a pro-active approach towards keeping the standards dynamic and at par with international developments in related fields is necessary. This would ensure that BIS strives for continuous improvement of standards by providing for an in-built alert system, which would flag emerging problems before they assume threatening dimensions.

2. BIS has stated that its standards are dynamic. However, beyond a provision for reaffirmation or review after five years, no means of evaluating the validity of standards in a rapidly changing scenario have been explicitly laid down. For this, BIS should have a Core Group of Scientists from various fields with the responsibility of keeping track of recent scientific and technical developments in critical areas. These scientists would alert the BIS management on the need to update and revise particular standards even before the review is due.

3. When BIS establishes a standard, it must specify the corresponding test methods. Amended standards (Amendment No.4 of February 2003) it has been stated that "the analysis shall be conducted by using internationally established test methods meeting the residue limits specified". This is vague and has left the choice of method to laboratories, which will lead to confusion, as it will not permit comparison between the results of different laboratories. BIS should constitute a Committee of Experts from the leading research institutions like Central Pollution Control Board (CPCB), National Institute of Nutrition (NIN), Central Food Technology Research Institute (CFTRI), Central Food Laboratories, Indian Toxicological Research Centre (ITRC), Indian Institute of Technology (IIT), National Environmental Engineering Research Institute (NEERI) etc engaged in evaluation of water quality for a review of the standards specified in IS: 13492 and IS: 14543 in order to specify the test methods to be followed by the testing laboratories.

4. For standard formulation different Sectional Committees and Divisional Councils should not work in isolation. It is desirable to have a coordination meeting of all concerned Divisional Councils and Sectional Committees for a closer participation of the experts in all related fields, before the standards are finalized.

5. Draft standards should be put on the website of BIS with a view to obtain comments from all interested individuals and groups. This should be brought to public notice by giving advertisements in the print and electronic media. For the sake of transparency, the constitution of the various committees, panels etc. involved in standards formulation should be on the web. This would exert covert pressure on the members as each has a reputation to protect.

6. It is sometimes stated that vested interests, particularly of big industrial houses, influence the standard formulation activity of BIS. This criticism emanates from the fact that standards formulation is a voluntary activity and BIS does not pay anything, even in terms of TA/DA, for participation in meetings of the Technical Committees set up for standard formulation. As a result, at times, participation of scientific organizations and consumer organizations remains on paper while industry participates in a more active manner. There is, therefore, an urgent need to take remedial measures to get over this problem.

B. CERTIFICATION

7. Drawal of market samples is a simpler and more cost-effective means of quality control and should be made better use of. There is a scope for substantial improvement in drawal of market samples.

8. Enforcement under section 26 of BIS Act is weak. Search and seizure operations are carried out on the basis of specific complaints and prosecution does not reach its logical conclusion for several years. There is a need to sharpen BIS procedures for effective enforcement under this Act.

9. The Scheme of Testing and Inspection (STI) is prepared by BIS by in house consultation with the concerned Departments. The scheme is crucial to certification and specifies the levels of control and the frequency of tests considered necessary for manufacturing units to ensure adequate quality control and compliance to the specifications. BIS prepares one STI for each product, after due consideration of the specifications in the relevant standard but this STI, once prepared becomes applicable to all licensees of that product. In the European directives, it is found that the frequency of sampling and analysis for water put into bottles or containers for sale varies according to the capacity of production. The number of samples increases with the increase in production. Based on this observation as also comments from several scientific bodies, it is suggested that BI8 may consider the desirability of linking the frequency of testing with the production. In other words. instead of a single STI for all licensees, BIS may take into account the quality of raw water, the technology used for purifying and quantity of water produced in a day and develop a STI for that individual manufacturing unit.

10. The certification system of AFNOR, the French National Standard Body (similar to BIS) which also operates a similar product certification scheme, has a provision for seeking advice on policy matters from a Certification Committee, which deals with all management and developmental policies. BIS may consider setting up product specific committees, as prevailing in AFNOR, having provision for outside expert participation at least for certification of mandatory items. This will enable BIS to involve the mandating body, say PFA of DGHS or its nominee to

advise on the STI, choice of testing laboratories and overall implementation effectiveness of the scheme.

11. When BIS certification for an item of mass consumption like packaged water is made mandatory, it increases the responsibility and answerability of BIS towards the consumers. BIS should have a complete in-house review of its resources before accepting this responsibility. Inadequacies of manpower and other resources should be identified and ways to fill up those gaps be explored before the challenge is accepted. But once BIS has accepted this responsibility, it must discharge it faithfully and not cite lack of manpower or resources as justification for non-adherence to the norms. BIS Act already has provision for appointment of 'Agents' for purposes of "inspection, testing and such other purposes, as may be prescribed" (section 10(1) of BIS Act). The provision needs to be put to proper use.

C. TESTING

12. BIS should recognize only those labs, which have NABL accreditation for all parameters of contaminants in water as per revised standards. Further, BIS's own laboratories should take such action as is necessary to comply with the requirements of ISO 17025 by obtaining accreditation from NABL for testing of water.

D. GENERAL RECOMMENDATIONS

13. The Bureau of Indian Standards, the National Standards body of India, became functional as a statutory body under the Bureau of Indian Standards Act, 1986 with effect from 1st April, 1987, taking over the staff, assets and liabilities of Indian Standards Institution established in 1947. For over 50 years, this institution has been successfully promoting and nurturing the standardization movement in the country. It has provided for the harmonious development of standardization, marking and quality certification of goods. However, there is now a need for BIS to revitalize its core competencies. The existing procedures of BIS formulated several years ago are somewhat shrouded in secrecy and confidentiality. Government is, however, committed to greater transparency. There is also a greater participation of people in decision making. The increased use of computers, the Internet and websites has made it possible to reach out to people in a cost-effective way. BIS

should overhaul its procedures in the light of such developments and increase transparency in its operations. List of members of Technical Committees, draft standards, list of licensees and their present status may be put on its website and updated at monthly intervals. The possibility of placing test reports of samples drawn from factory or market on the web may also be considered. The present provisions in BIS Act and Rules, which specify confidentiality of various details obtained from licenses, may be reviewed by expert groups, which may include legal experts, with a view to achieve maximum transparency.

14. BIS certification system has adopted the self-certification model of ISO Guide 28, which has served the purpose of ensuring compliance to the standards as against a 100% inspection and testing scheme. To remove any doubts about the effectiveness of the products' certification scheme, BIS may consider accreditation of its product certification system following the ISO 65 Guidelines by suitable bodies like RVA, The Netherlands. Such an accreditation is a mechanism to bring transparency to operations, making the systems more credible, having built-in diagnostic and corrective measures. The quality management system of BIS (ISO 9000 standards) is already accredited by RVA, The Netherlands.

15. The presence of pesticides in packaged drinking water caught many a headline in prominent newspapers in February 2003. The study in this issue has revealed that pesticides in bottled water are there because they are present in the source of water. Also that we are consuming much higher quantities of pesticides in milk, foodgrains and other food products. No doubt pesticides in packaged water can be reduced even to trace levels by amending the standard, resorting to better management practices and ensuring that the source of water in not polluted. However, some thought needs to be given to the overall problem of increasing water pollution, since it has serious implications for the health of our people. In the developed countries, there is only one standard for drinking water and countries are expected to ensure that all drinking water for human consumption, whether it is made available through the distribution network or in containers, conforms to those standards. Why should these standards be limited to bottled water alone, which after all is only consumed by the privileged? It is time that consumers demand pollution free drinking water and government/municipal machinery gears itself to meet this rightful demand.

16. The provisions of product certification in BIS Act, 1986 and BIS (Certification) Regulations, 1988 are basically the same as they were in ISI (Certification Marks) Act, 1952 and Regulations 1955, a model of voluntary certification. It needs to be considered whether those provisions which were more appropriate for a voluntary certification system are adequate to provide safety for certifying the quality of every single bottle/container of packaged water and ensure the safety of public health. This aspect also requires an examination by a technical committee which should advise either improvements in BIS operations or identify other means of assuring the quality of packaged drinking water. This may mean appointing outside agencies which have necessary resources and expertise in monitoring water quality.

17. There is also a need to review the permissible limits of contaminants in other food products under PFA. This may also lead to a wider discussion regarding permissible levels of use of pesticides and fertilizers for agriculture and horticultural purposes. As long as pesticides and fertilizers are used for agriculture, they would have an adverse effect on food and water.

18. It is matter of concern that due to the constant tapping of ground water, the water level gradually goes down and it may change the total dissolved solids (TDS) in the water and may require aggressive processing to keep the TDS in desired concentrations. To cut the costs of processing, it is likely that industry may start by-passing the total processing of the whole water. Hence it is recommended that a water re-charging system should be made mandatory for this industry and before renewal of license, a NOC from the concerned monitoring agencies should be obtained. Some guidelines regarding selection of sites for installation of packaged drinking water industry are also required to ensure their location in pollution free areas. Disposal of wastes from the water purification plants also needs to be monitored.