

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH
NEW DELHI**

Original Application No. 477 of 2015

IN THE MATTER OF:

Jan Sahyog Manch
Through its authorized representative
Sh. Charanjeet Singh
Having office at:
B 10 A First Floor, Fateh Nagar, Tilak Nagar
Delhi-110018

..... Applicant

Versus

1. Union of India

Through Secretary
Ministry of Environment and Forest
Paryavaran Bhawan,
New Delhi-110003

2. All India Plastics Manufacturers Association

North Zone Regional office at
Flat No. 301 in 2E/23, Jhandewalan Extension,
New Delhi-110055

3. NSF Safety and Certification India Private Limited

Plot No. 127 2nd Floor, Sector 44
Institutional Area, Gurgaon
Haryana

.....Respondents

COUNSEL FOR APPLICANT:

Mr. Abhinav Agnihotri and Mr. Deepak Vohra, Advs.

COUNSEL FOR RESPONDENTS:

Dr. Abhishek Attrey, Adv. for MoEF. for Ministry of Environment,
Forest and Climate Change for respondent no.1

Mr. Kundan Kumar Mishra, Mr. Ajay Kumar and Mr. Shubham
Saket, Advs. for respondent no.2

Mr. Inder Raj and Mr. B.B. Singh, Advs. for NSF Safety & Certification India Pvt. Ltd. For respondent no.3

JUDGEMENT

PRESENT:

Hon'ble Mr. Justice Swatanter Kumar (Chairperson)
Hon'ble Mr. Justice Raghuvendra S. Rathore (Judicial Member)
Hon'ble Mr. Bikram Singh Sajwan (Expert Member)

Reserved on: 16th March, 2017
Pronounced on: 25th May, 2017

- 1. Whether the judgment is allowed to be published on the net?**
- 2. Whether the judgment is allowed to be published in the NGT Reporter?**

RAGHUVENDRA S. RATHORE (JUDICIAL MEMBER) J

- 1.** The applicant a society registered under Societies Registration Act, through its convener, has filed this present application before the Tribunal under Section 18 (1) read with Section 14, 15, 16 & 17 of the National Green Tribunal Act, 2010. The applicant has invited the attention of this Tribunal over the issue of lead contamination from the lead present in daily life by using Polyvinyl Chloride which is also known as PVC (Polyvinyl Chloride) pipes. The applicant has specifically brought to the notice of the respondents about the fatal effects of lead. As no action has been taken, he has approached the Tribunal to intervene on the issue. Accordingly, prayer has been made for appropriate directions by the Tribunal to the respondents so as to look into and take remedial and preventive steps in regard to environment and ecological damage caused by the use of lead in manufacturing of Polyvinyl Chloride (PVC) pipes and other products. The

applicant society has also asked for issuance of appropriate directions to the respondents for constituting a suitable body to regulate and verify manufacturing process. Further, the applicant has requested to pass stringent directions/regulations for using lead based heat stabilizer in PVC industry and to use other stabilizers such as Tin, or Calcium/Zinc etc., as deemed fit and proper by the Tribunal, which are not hazardous to environment as well as human life and are also readily available from the same source as the lead based stabilizer. The applicant has also prayed for stringent directions for withdrawing the PVC pipes out of the market which are containing lead based heat stabilizer. Directions have also been sought with regard to banning of the use of lead based heat stabilizer as it will leave a negligible effect on the cost.

- 2.** The applicant has submitted that the usage of PVC pipes is high in nature because of its versatility and inexpensive status. The PVC pipes are being extensively used in plumbing, agriculture, sanitation etc. In manufacturing process of PVC pipes, lead is extensively used as the same is most common and cheapest heat stabilizer. In order to gain profit, manufacturers are even using recycled lead to produce cheaper version of heat stabilizer which is even more dangerous to human life and environment. There being no bar or any parameter in manufacturing process of PVC pipes, lead is most commonly used. The ill-effects of lead are well known.

3. The applicant is said to have sought information of lead contamination through PVC pipes vide electronic and print media. As per the survey and investigation carried out by the Quality Council of India, an organization set up jointly by Government of India and Indian Industry Association, presence of lead in drinking water has become a subject of concern. Lead moves into and throughout into ecosystem. It is also deposited in vegetation, ground and water surfaces. The chemical and physical properties of lead and the bio-geo chemical processes within ecosystem will influence the perennial presence of lead. The metal can affect all components of environment and can move through the ecosystem. Lead accumulates in the environment, but in certain chemical environments it will be transformed in such a way as to increase its solubility, its bioavailability and hence its toxicity.

4. The lead travelling through PVC pipes accumulates in the soil, particularly, with high organic contents. The lead deposited on the ground is transferred to the upper layers of soil surface, where it may be retained for many years. In undisturbed ecosystem, organic matter in the upper layer of soil surface retains atmospheric lead. In cultivated soil, lead is mixed with soil to the depth of root zone. Atmospheric lead in the soil will continue to move into the micro-organism and grazing food chains.

- 5.** Further, it is submitted that plants on land tend to absorb lead from the soil and retain most of it in their roots. There is some evidence that plants' foliage of plants may also take up lead. The uptake of lead by the roots of the plant has to reduce the application of calcium and phosphorus to the soil. The pores in the plant leaves let-in carbon dioxide needed for photosynthesis and emits oxygen. Lead pollution coats the surface of the leaf and reduces the amount of light reaching it. This results in reducing the rate of photosynthesis, thereby stunting the growth or killing the plants by inhibiting respiration, encouraging an elongation of plant cells and influencing root development causing premature aging. Some evidence suggests that lead is genotoxic and can affect population genetics. All these effects have been observed in isolated cells or in hydroponically grown plants in solutions or soil moisture, for example, the lead levels experienced by ecosystems near smelter and road sides.
- 6.** According to the applicant, lead affects the central nervous system of animals and inhibits their ability to synthesize red blood cells. Lead blood concentrations in blood of above 40 µg/dl can produce observable clinical symptoms in domestic animals. Calcium and phosphorus can reduce the intestinal absorption of lead. As per online data, a regular diet of 2-8 mg of lead per kg of body weight per day, over an extended period of time, will cause death in most animals. Grazing animals are directly affected by the consumption of forage and feed

contaminated by lead and somewhat indirectly by the up-take of lead through plant roots. Invertebrates may also accumulate lead at levels toxic to their predators.

7. Further, it has been submitted by the applicant that use of lead contaminated water travelling through PVC pipes is silently leaving shocking effect on the life of humans. The public at large in the absence of any printed or visual information is continuously consuming water travelling through PVC pipes made by using lead stabilizers and which may lead to many effects on health such as:

- i. Disruption of the biosynthesis of hemoglobin causing anemia
- ii. rise in blood pressure and kidney damage
- iii. disruption of nervous systems and brain damage
- iv. Diminished learning abilities in children etc.

Lead poisoning usually occurs over a period of months or years. The poisoning can cause severe mental and physical impairment. Young children are most vulnerable to lead poisoning.

8. The applicant has referred to various surveys and investigations conducted by different organizations on present subject. As per the Quality Council of India, the presence of lead in water has alarmed people and agencies across the country. 33% of over 370 samples of water from the top 26 cities of India tested positive for harmful content of lead. Out of these, 31% of samples failed to adhere to the World Health

Organization (WHO) standards of a lead content of less than 10 ppb (parts per billion), while 2 % of the samples failed to meet even the lenient Indian norms of 50 ppb. Incidents of high content of lead have been found in ground water where, as high as, 41% samples were unfit for drinking. Moreover, over 15% of municipal water had a high content of lead.

9. The applicant is said to have taken samples of PVC pipes which are in the name of Prakash, Prince, Finolex and Supreme pipes available in the open market and had those samples tested in the FDDI International Testing Center. The results of such tests showed the presence of lead in PVC pipes. To further confirm the results, the applicant had again tested the same pipes in another laboratory namely Shri Ram Institute for Industrial Research where the presence of lead was again confirmed by the testing agency.

10. Applicant has also mentioned about the information available, in respect of other countries. According to US Code, Title 42, The Public Health and Welfare, Chapter 6A, Sub Chapter XII, Part B, there is prohibition to the effect that no person may use any pipe or plumbing fitting or fixture, any solder, or any flux, after June 19, 1986, in installation or repair of (i) any public water system; or (ii) any plumbing in a residential or non-residential facility providing water for human consumption, which is not lead free.

11. In China, the National Standards of 2006 banned lead stabilizers in PVC pipes used in water supply. Considering the

high usage of PVC pipes, China has introduced policies to use other stabilizers which are non-hazardous to human life and environment. The usage of lead in PVC pipes in India is quite high.

12. It has been submitted by the applicant that in order to make huge profits, the quality of pipes is compromised and additives called heat stabilizers containing lead are used extensively. These products do not require any special permission from the government for being sold in the market. Potential buyers are unsuspecting middle class, those with less disposable income and poor farmers having no consumer awareness of the product and always looking for a cheap bargain. The applicant has submitted that there are no parameters or any regulating body to verify the manufacturing process and to keep toxic stabilizers away from it. The lead can be replaced with Tin or Calcium Zinc i.e. heat stabilizers will be leaving negligible effect in the cost of pipes. Accordingly, manufacturing of PVC pipes and PVC fittings calls for an imminent need to use common heat stabilizers which are being manufactured by using lead or barium or cadmium or tin or calcium-zinc etc. These can be categorized safe and non-hazardous to human consumption or otherwise.

13. The case of the applicant is that despite all the aforesaid information relating to lead contamination and specifically bringing it to the notice of the respondent on 31.08.2015, no action has been taken by them. Therefore, the applicant has

sought indulgence of the Tribunal and prayed for its intervention.

- 14.** In the counter affidavit filed by respondent no.1, MoEF&CC, it is submitted that it prescribes standards for discharge of effluents from the industrial process under Environment (Protection) Act, 1986. It does not prescribe standards for quality of products. Moreover, Bureau of Indian Standards (BIS) which comes under the Ministry of Consumer Affairs, Food and Public Distribution has the mandate for the same.
- 15.** It has been submitted that there are existing Standards for U-PVC Pipes used for Potable Water supplies. These standards are prescribed by the Bureau of Indian Standards (BIS) for harmonious development of activities of standardization, making and quality certification of good.
- 16.** It is further submitted in Para 7-13 about the “impact of lead on vegetation, ground and surface water, flora and fauna and human life. The lead can affect the health system if it is exposed to Environment exceeding the permissible limits”. MoEF&CC prescribes standards for effluents discharge from the industrial process under Environment (Protection) Act, 1986. It has been submitted that the manufacturers should comply with the prescribed Standards of BIS wherein all the U-PVC Pipes manufacturer shall undertake “Testing of Water as per IS 12235.

17. The respondent has submitted in Para 14-16 about the results which have come after investigation conducted by Quality Council of India, FDDI International and Shriram Institute for Industrial Research. The CPCB has not conducted any sampling and analysis on these aspects, therefore no comments on the results.

18. In Para 19-20 of the reply the respondent has dealt with the extensive use of lead in PVC Pipes manufacturing without having any permission. It is submitted that CPCB & SPCBs have the mandate for environmental monitoring of effluents/emissions. The urge of replacing lead with tin, calcium and Zinc, can be replied properly by BIS.

19. It has been further submitted by respondent no.1 that the present application relates to extensive use of lead in PVC as heat stabilizer for which no standards are available. However, it is submitted that BIS has the mandate for harmonious development of activities of standardization and quality certification of goods. Bureau of Indian Standards has also prescribed standards for drinking water, specification including that for lead in the table under the heading IS 10500:2012.

20. It is also submitted by the answering respondent that it prescribes standards for discharge of effluents from the industrial process, under Environment (Protection) Act, 1986. These are being regularly monitored by CPCB and State

Pollution Control Boards (SPCBs), as applicable. Since, IS 4985: 2000 is not mandatory and obligatory to the Manufacturers or Producers, hence, low quality U-PVC Pipes can be manufactured by any one, without following it.

21. In the rejoinder affidavit filed by the Petitioner to the counter affidavit it is submitted that the tenor of the counter affidavit is such that the respondent no. 1 has tried to put the entire responsibility on BIS. Respondent no. 1 has lost sight of the fact that the issue raised in the petition is also concerned with the issue of water pollution.

22. That a bare reading of the BIS Act, 1986, shows that it has been enacted to provide for the establishment of bureau for the harmonious development of the activities of standardization. Nowhere does this act provide any mandate in respect of the production of PVC. Thus the manufacturing units, while usurping the maximum benefit by recycling the PVC pipes, continuously contaminating the soil.

23. It is further submitted by the applicant that without admitting the facts as stated in the reply, it is stated that Chapter IV A of the BIS Rules 1987 states the procedure for registration of articles. It is only self-declared and test report may lead to registration of the article.

24. It is also submitted that Section 25 (2) (a) Chapter IV of Environment Protection Act, 1986 prescribes the power of respondents to make rules for carrying out the purpose of the act. It further empowers the respondent to lay the standard in

excess of which Environmental Pollutants shall not be discharged under Section 7.

25. The applicant has submitted that the content of Paras No. 4& 5 are wrong. It is beyond imagination that respondent (MoEF&CC) does not have any data. Further by such averments they are putting complete onus on BIS in order to run away from the responsibility. It is wrongly submitted that they are to only prescribe standards for discharge of effluents from the industrial process under the EPA Act, 1986. However the main objective of the applicant is also to conserve nature, flora, fauna. Therefore, the present issue of contamination by PVC pipes falls within the ambit of the respondent.

26. It is further submitted by the applicant that respondent possess the power to make rule in this regard. However, a hidden neglect approach has been adopted by the respondent by putting the onus on BIS.

27. In the counter affidavit filed by respondent no. 2, it is submitted that PVC is being used for pipes in plumbing, agriculture or sanitation, due to obvious advantages. PVC pipes are corrosion free and therefore last longer than metal or cement pipes. The inside surface of PVC pipe is smoother and hence the energy required to transport water or fluid like sewage over the given distance is less than the pipes made from other materials.

28. It is further submitted that over 40,000 North American water utilities use PVC pipe today. About 78 percent of all new

drinking water distribution pipes installed on the continent are PVC. All of them confirm that the product is safe and beneficial to public health.

29. It is submitted that the application is full of non-scientific statement. The applicant seems to be biased against PVC pipes and lead stabilizer used in them. Lead recycling is carried out in a most scientific way. The recycled lead is not inferior to virgin lead in any way.

30. It is submitted by the respondent that the presence of lead in drinking water is a concern for everyone. Applicant is claiming that lead in drinking water is coming from lead stabilizers used in PVC pipes. Lead in water can be from many sources. More than 80 % of lead is used in lead acid batteries. Therefore to say that lead stabilizer should be banned, is absurd logic. The applicant needs to produce evidence to show that water which was initially lead free becomes polluted with lead over the extended period of time.

31. It is submitted that applicant contends that lead gets into the ecosystem but this has no correlation with lead stabilizer in PVC pipes. Lead can enter in ecosystem from many source. Major consumption of lead is in car batteries and hardly a fraction is used in lead stabilizers.

32. It has been further submitted that the applicant contends that lead travelling through PVC pipes accumulates in the soil, particularly soil with high organic content. But lead

does not flow through PVC pipes. Melting point of lead is 327.6 degree centigrade. PVC cannot withstand such a high temperature. There is no evidence to show that all these ill effects are due to lead stabilizers used in PVC pipes.

33. It is also submitted that water gets contaminated due to presence of lead flowing through PVC pipes. It is stated that PVC pipes do not pollute the water with lead. There is no case history over the past 50 years which show that lead stabilizers in PVC would cause ill effects. It is further submitted that when PVC pipes, made with lead base stabilizers are used for transporting potable water, the leaching of lead is high only for first two days. Thereafter, lead leaching is so small that it may not even be detected. This is sufficient to clarify that PVC pipes do not contribute to the lead pollution.

34. It is further submitted that lead pipes or other metallic pipes, which use lead welding, have no relevance with PVC pipes as they do not require any lead welding. Pipe fitting are done or if welding is carried out, it is without use of Lead. All of this confirms that the product is safe and beneficial for public use.

35. It is submitted that use of lead stabilizer in PVC is not banned in many advanced countries. They are extensively used in Russia, China, Brazil etc. It is further stated that no plasticizer is used in PVC rigid pipes. The additives are embedded in PVC matrix. The claim of applicant that “PVC

product itself can be eminently dangerous to the consumer and green life” is totally false and baseless.

36. It is further submitted that when lead stabilizers are used, the processing window i.e., the temperature range or speed of pipe manufacturing line is broader. If there is a power failure, the PVC material trapped inside the extruder remains stable over longer period of time. As a result wastage and down time of machine is much less. The shift from lead to other stabilizer is not impossible but extremely difficult and highly time consuming.

37. In the rejoinder filed by the applicant to the affidavit of respondent no. 2, it is submitted that in extensive use of PVC pipe in day to day life, there is large quantity of lead which is used as heat stabilizer in the manufacturing process. As a matter of fact both the respondents in their reply have admitted the presence of lead in water.

38. It is submitted that the respondent is endeavoring to divert the real issue by incorrectly focusing on the PVC. As already stated, lead leaches and passes through the running water and consequently contaminating the same. Leaching of lead in the PVC pipes is the core issue.

39. It is also submitted by the applicant that the respondent is incorrect in saying that the total amount of lead is small in the final product and that the embedded and bonded lead would not exceed 2 %. It is respectfully submitted that even

this form of lead has harmful results in the contamination of water which, in turn, has its harmful consequences upon human life or vegetation, as the case may be.

40. It is submitted that in the report of Department of Health and Senior Services, New Jersey titled “Lead in Drinking Water”, it has been mentioned that the lead has been banned in drinking water plumbing by federal law in 1986. Further, it has been mentioned in US Congress amendments of 1986 to Federal Safe Drinking Water Act that the use of lead containing solders for indoor drinking water plumbing is banned.

41. It is submitted by the applicant that the contents of corresponding Para 5 are wrong. The applicant has no personal bias against the use of PVC pipes. The respondent admits the use of lead in manufacturing process of PVC pipes. Further the respondent is endeavoring to confuse the Hon’ble Tribunal by making unnecessary reference to the recycled lead and virgin lead. Whereas, both kinds of lead are harmful

42. It is submitted that in present days hardly any iron or copper pipes are used and consequent there is use of lead for their joints. The respondent, without addressing the core issue of the use of lead based stabilizers in the manufacturing of PVC pipes, is trying to shift it upon the usage of metal pipes.

43. It is further submitted that the respondent is making self- contradictory submission. On the one hand, the

respondent has claimed that lead is seldom found naturally in water supplies and the on the other hand it has been stated that the applicant needs to produce the evidence to show that water which was initially lead free becomes polluted with it over the extended period of time.

44. It is also submitted that the respondent is unnecessarily trying to create confusion and is misinterpreting the term flow. By flow, it is meant that leaching of lead takes place and it ultimately mixes with the water and as a result contaminates the same.

45. It has been denied that the petitioner is trying to sensationalize the matter by allegedly distorting or by accusing the entire industry. The petitioner has nowhere labeled either the pipe manufactures or stabilizer manufactures as eco-terrorist. The applicant has raised an issue which in its wisdom has a wide implication on the environment.

46. It is further submitted that the respondent seems to be much more concerned about a normal manual process of modifying the temperature units and grant of training to operators rather than not using lead based stabilizers. To the knowledge of petitioner, the performance of other stabilizer instead of lead is same as that of lead stabilizer.

47. In the counter affidavit filed on behalf of respondent no. 3 it is submitted that the present respondent is the Indian Affiliate of NSF International, a non-profit organization

working for the development of public health standards and certification programs that helps in protecting the world's food, water, consumer product and environment. The present respondent merely provides third party certification in relation to the standards developed by and proprietary to its parent entity.

48. That the primary standards established by NSF International prescribing the minimum requirements for the control of potential adverse human health effects from products that contact drinking water is NSF/ANSI Standard 14 read with NSF/ANSI Standard 61 which is supplemented by other applicable standards including NSF standards. The said standard prescribe the acceptable limit for lead use in a pipe and related products, protective material including coatings for tanks, joining & sealing materials , mechanical devices such as dry feeders, pumps etc. & mechanical plumbing devices including lavatory faucets etc.

49. It has been submitted that the present respondent is not in a position to offer any generic or specific comments on the averments and contents in the present original application, specifically dealing with the aspect of harmful effects of water contamination and pollution. Further it is not in a position to comment on validity of the result of the test carried out by the laboratories approached by the applicant unless respondent carries out an evaluation of PVC pipes manufactured by such specific manufactures.

50. It is further submitted that the present Respondent is willing to offer all reasonable assistance to the department of the Government of India including by way of participating in the consultative process, for assisting with the development and formulation of the relevant standards governing the usage of the lead and lead based heat stabilizer coming in contact with water and water resources.

51. We have given our thoughtful consideration to the submissions made by the parties and carefully gone through the material on record. According to the applicant, lead and other metallic salts are added as stabilizer in manufacturing of PVC pipes in contravention to the international best practices. This addition of lead compounds may result into leaching of lead in water supplies, particularly, if the PVC pipes are used for drinking water supplies. However, applicant has not produced any study or document which show or indicate any leaching of lead from the PVC pipes.

52. Addition of metallic salts including lead is a technical requirement for PVC pipe manufacturing. According to the manufacturers plastic association admits that there is some leaching of lead from inner walls of PVC pipes in initial period of pipe use which substantially reduces with time.

53. MoEF&CC also raises apprehension at use of substandard pipes and possibility of contamination of water use to unregulated and uncontrolled use of lead salts in PVC

pipe manufacturing. But, takes a stand that they cannot specify standards for products, but it can be done by BIS. Considering admission of leaching of lead by respondent no.2, association and also apprehension raised by MoEF&CC, it is necessary to take some actions based on precautionary principles.

MoEF&CC has already notified standards regulating products, from environmental considerations and pollutant contents like, coal wherein sale and use of coal with more than 34% as content is banned. Fire crackers noise level has been specified. Similarly, vehicle noise has been specified. In the case of *Dilip Newatia (O.A No. 81/2015)*, the Western Zonal Bench of NGT has dealt with the issue and directions have been issued for specifying Sulphur in Kerosene.

54. The Environment (Protection) Act, 1986 empowers the Central Government to take measures to protect and improve the environment. Section 3 of the Environment (Protection) Act, deals with powers of the Central Government wherein the Central Government has been bestowed with the powers to take all such measures as it deems necessary or expedient for the purpose of protection and improving the quality of environment and preventing, controlling and abetting environmental pollution. Section 3(2)(iii) and (iv) also empowers the Central Government to lay down the standards for the quality of environment in its various aspects and also

for emission or discharge of environmental pollutants from various sources what-soever.

55. It would also be relevant to refer to the preamble of Environment (Protection) Act, 1986 and Air (Prevention and Control of Pollution) Act, 1981 which is reproduced below;

“The Environment (Protection) Act, 1986 : *An Act to provide for the protection and improvement of environment and for matters connected therewith. Whereas decisions were taken at the United Nations Conference on the Human Environment held at Stockholm in June 1972, in which India participated to take appropriate steps for the protection and improvement of human environment; AND whereas it is considered necessary further to implement the decision aforesaid in so far as they relate to the protection and improvement of environment and the prevention of hazards to human beings, other living creatures, plants and property.*

56. The preamble of Water (Preservation and Control of Pollution) Act, 1974 is reproduced below;

“An Act to provide for the prevention and control of water pollution and the maintaining or restoring of wholesomeness of water, for the establishment, with a view to carrying out the purposes aforesaid, of Boards for the prevention and control of water pollution, for conferring on and assigning to such Boards powers and functions relating thereto and for matters connected therewith.

Whereas it is expedient to provide for the prevention and control of water pollution and the maintaining or restoring of wholesomeness of water, for the establishment, with a view to carrying out the purposes aforesaid, of Boards for the prevention

and control of water pollution and for conferring on and assigning to such Boards powers and functions relating thereto;”

57. The preamble of Bureau of Indian Standards Act, 1986 reads as follows :

“An act to provide for establishment of a Bureau for the harmonious development of activities of standardization, marking and quality certification of goods and for matters acted therewith or incidental thereto. Further the terms specification is defined in Section 2 of the Act which reads as follows:

“Specification” means a description of an article or process as far as practicable by reference to its nature, quality, strength, purity, composition, quantity, dimensions, weight, grade, durability, origin, age, material, mode of manufacture or other characteristics to distinguish it from any other article or process.”

58. Similarly, the powers and functions of the Bureau are defined in Section 10(1) of Bureau of Indian Standards Act, 1986, reproduced below :

“10. (1) The Bureau may exercise such powers and perform such duties as may be assigned to it by or under this Act and, in particular, such powers include the power to –

- a. establish, publish and promote in such manner as may be prescribed the Indian Standard, in relation to any article or process;*
- b. recognize as an Indian Standard, in such manner as may be prescribed, any standard established by*

any other Institution in India or elsewhere, in relation to any article or process;

c. specify a Standard Mark to be called the Bureau of Indian Standards Certification Mark which shall be of such design and contain such particulars as may be prescribed to represent a particular Indian Standard;

d. grant, renew, suspend or cancel a license for the use of the Standard Mark;

e. levy fees for the grant or renewal of any license;

f. make such inspection and take such samples of any material or substance as may be necessary to see whether any article or process in relation to which the Standard Mark has been used conforms to the Indian Standard or whether the Standard Mark has been improperly used in relation to any article or process with or without a license;

g. seek recognition of the Bureau and of the Indian Standards outside India on such terms and conditions as may be mutually agreed upon by the Bureau with any corresponding institution or organization in any country;

h. establish, maintain and recognize laboratories for the purposes of standardization and quality control and for such other purposes as may be prescribed;

i. undertake research for the formulation of Indian Standards in the interests of consumers and manufacturers;

j. recognize any institution in India or outside which is engaged in the standardization of any article or process or the improvement of the quality of any article or process;

k. provide services to manufacturers and consumers of articles or processes on such terms and conditions as may be mutually agreed upon;

- l. appoint agents in India or outside India for the inspection, testing and such other purposes as may be prescribed;*
- m. establish branches, offices or agencies in India or outside;*
- n. inspect any article or process, at such times and at such places as may be prescribed in relation to which the Standard Mark is used or which is required to conform to the Indian Standard by this Act or under any other law irrespective of whether such article or process is in India or is brought or intended to be brought into India from a place outside India;*
- o. Coordinate activities of any manufacturer or association of manufacturers or consumers engaged in standardization and in the improvement of the quality of any article or process or in the implementation of any quality control activities;*
- p. perform such other functions as may be prescribe.”*

59. During the pendency of this Application, the Bureau of Indian Standards Act, 2016 was notified on 22nd March 2016 repealing the Bureau of Indian Standards Act, 1986. Though this Act was not relied upon by either of the parties, it is necessary to consider the provisions of this Act also. The Preamble of Bureau of Indian Standards Act 2016 reads as under :-

“An Act to provide for the establishment of a national standards body for the harmonious development of the activities of standardization, conformity assessment and quality assurance of goods, articles, processes, systems and services and for matters connected therewith or incidental thereto”.

60. Further the Indian Standards have been defined in the said Act as under :-

“(17) "Indian Standard" means the standard including any tentative or provisional standard established and published by the Bureau, in relation to any goods, article, process, system or service, indicative of the quality and specification of such goods, article, process, system or service and includes—

- (i) any standard adopted by the Bureau under sub-section (2) of section 10; and*
- (ii) any standard established and published, or recognized, by the Bureau of Indian Standards established under the Bureau of Indian Standard Act, 1986, which was in force immediately before the commencement of this Act;”*

61. Further the term “specification” and “standards” have been defined in Section 2 as under :-

*“(37) "**specification**" means a description of goods, article, process, system or service as far as practicable by reference to its nature, quality, strength, purity, composition, quantity, dimensions, weight, grade, durability, origin, age, material, mode of manufacture or processing, consistency and reliability of service delivery or other characteristics to distinguish it from any other goods, article, process, system or service;*

*(39) "**standards**" means documented agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that goods, articles, processes, systems and services are fit for their purpose;”*

62. Conjoint reading of the BIS Act, 2016, Environment (Protection) Act, 1986 and Water (Preservation and Control of Pollution) Act, 1974 would reveal the clear demarcation of the

mandate under these respective Acts. The environmental regulations focus on preservation of environment by protecting the environment from the various causes of pollution and degradation. While the BIS Act mandates establishment of a national standards body for the harmonious development of activities of standardization, conformity assessment and quality assurance of goods etc. It is manifest from the preambles of these regulations that in case of issues related to environment protection and conservation, the environmental regulations would prevail. The BIS Act at most be effectively used to ensure appropriate standardization or conformity assessment and quality assurance, once such standards are finalized under the environmental regulations based on environmental considerations.

- 63.** Government of India in the Ministry of Environment and Forest in similar scenario has already exercised its powers for notifying the fuel standards with regard to supply and use of coal for the thermal power plants vide Notification dated 2nd January 2015 and we, therefore, do not find any hindrance for MoEF&CC to deal with specifying certain restriction on use of lead in PVC manufacturing. It is the duty of the MoEF&CC to lay down such standards as per the powers conferred under the Environment (Protection) Act, 1986. MoEF&CC can take suitable expert advice to devise such standards, based on the environmental considerations. We are conscious of the fact that prescribing the standards is an elaborate scientific

exercise involving development of criteria, assessment of impacts, cost-economics, feasibility and change management aspects. The Tribunal do not intend to enter in this domain of prescribing such standards as it is the statutory duty of MoEF&CC to do the same based on the expertise it has, after following the due procedure prescribed by the Law.

64. In view of the above discussions, particularly, the potential adverse health effects, due to presence of lead in water flowing through PVC pipes, we feel it necessary that the entire matter of usage of lead as stabilizer in PVC pipes and its desired standards needs to be examined expeditiously on scientific grounds by the MoEF&CC, based on environmental considerations. Accordingly, we direct the Secretary, MoEF&CC:

(i). To notify, if required with concerned agencies the quality standards of lead to be used for PVC pipes within four months from today.

(ii). To lay down the standards for presence of lead in PVC pipes, in consultation with BIS.

(iii). To draw up a programme for phasing out of lead as stabilizer in PVC pipes.

A compliance report shall be filed by the MoEF&CC after the stipulated time.

65. Application is accordingly disposed of, with no order as to costs.



सत्यमेव जयते

.....
Justice Swatanter Kumar
(Chairperson)

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Justice Raghuvendra S. Rathore
(Judicial Member)

.....
Bikram Singh Sajwan
(Expert Member)

New Delhi.
Dated: 25th May, 2017

NGT