

## **DISCLAIMER**

*In compliance of the order passed by Hon. National Green Tribunal (NGT) on 9<sup>th</sup> May, 2013 in the matter of Application No. 65/2012 (T<sub>CH</sub>). MPCB has prepared the said report **“Post Idol Immersion impact on water quality to ascertain water pollution potential of idols made up of Plaster of Paris and Others”** and draft **“Guidelines for Immersion of Ganesh Idols”**. This is submitted to the Principal Secretary, Department of Environment, Govt. of Maharashtra for necessary action.*

***MPCB is following prevailing guidelines issued by Central Pollution Control Board (CPCB) for immersion of idols.***

*Issued with approval of Member Secretary, MPCB*

*(Dr. A. R. Supate )*

*Date: 03.04.2014*

*Principal Scientific Officer*

# GUIDELINES FOR IMERSION OF GANESH IDOLS



**MAHARASHTRA POLLUTION CONTROL BOARD**

**Central Laboratory, Mahape, Navi Mumbai**

**2<sup>nd</sup> Sept., 2013**

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## 1.0 Background

Ganesh festival originally started by Lokmanya Shri B G Tilak from Pune with the objective to bring people together and promote freedom movement traditionally has now gone in a big way as a social and community activity. Now with the time, scale, concept and intentions to celebrate Ganesh festival has changed scale of involvement of the people. The festival is now celebrated across the state and involving all cast, religion etc. Moreover, worship of Ganesh idols at households is incremental every year. Use of decoration material, material used for idol making has changed its trend from biodegradable and reusable material to non biodegradable material. In addition lack of flowing waters in inland areas has put limitations on age old traditions of throwing “Nirmalya” into water bodies causing serious concerns of water pollution. Also, air pollution, noise pollution increases many fold during the festival days. It is therefore important that we celebrate the festival keeping in view the need for environment protection and also prevention and control of pollution.

Hon’ble National Green Tribunal (NGT) in the matter of application No.65/2012 (THC) S. K. Waghvankar and others V/s State of Gujarat filed by a group of Idol manufactures and artisans, under section 14 and 16 of the National Green Tribunal Act,2010 issued following directions to the Pollution Control Boards vide its order dated 09<sup>th</sup> May,2013.

GPCB and all the other Pollution Control Boards which are covered by the Water Act to undertake scientific study of the impact of PoP made idols on immersion thereof, in relation to water quality of rivers, ponds, sea or other sources and examine whether it is an environment pollutant.

The order further directs PCBs to examine whether the immersion of PoP made idols, in fact, cause nuisance though the PoP by itself may not be a water pollutant after conducting such scientific study by appointing an Expert Committee. The Pollution Control Board or the Central Government or the Stat Government may issue appropriate directions in accordance with the powers available under section 33–A of the Water Act or any other provisions under the Water Act or any other Act, in order to control water pollution or to avoid the nuisance caused on account of immersion of the PoP made idols.

Accordingly, MPC Board, Mumbai vide **Office Order No. E-66 /2013, dtd 15<sup>th</sup> July, 2013** constituted a committee under the Chairmanship of Dr. A. R. Supate, Principal Scientific Officer, MPC Board, Mumbai consisting of:

- Dr. Rakesh Kumar, Scientist-G & Head, Mumbai Zonal Lab. NEERI, Mumbai.
- Mr. R.G. Pethe, Ex. Water Pollution Abatement Engineer, MPC Board, Mumbai.
- Mr. Bharat Nimbarte, Joint Director (WPC) MPC Board, Mumbai.
- Mr. Sanjay Bhuskute, Public Relation Officer, MPC Board, Mumbai.

The Chairman of the committee co-opted Shri D T Devale, Sr. Law Officer, MPCB and Ms. Pradnya Thakur, Director, Shaswat Eco-solution Foundation, Pune in the committee. ]

During the first meeting Chairman of the committee vide Ref. No.MPCB/PSO/Lab./B-3474, dtd.05/08/2013 constituted a study group of scientific staff of the MPC Board as under:

- Mr. S. V. Bhosale, Scientific Officer, Regional Laboratory MPCB, Thane.
- Mr. B. S. Gadhari, Jr. Scientific Officer, Central Laboratory. MPCB, Navi Mumbai.
- Ms. Ragini Butale, Jr. Scientific Officer, PSO Division, MPC Board, Mumbai.
- Mrs. Swapna Satam, Jr. Scientific Assistant, Central Lab., MPCB, Navi Mumbai

As per decision of committee necessary guidelines were issued to the study group constituted for the study. Accordingly the study commenced on 02/08/2013 at Central Laboratory, MPC Board, Mahape, Navi Mumbai.

The findings of the scientific study on impact of PoP idol immersion on water quality is enclosed at Annexure-I.

Various laws are in place concerning festivities, celebration, environment protection etc. However, acceptance of legislations will be most successful, if they are voluntarily supported by people for implementation. To facilitate celebration of Ganesh festival in an environment friendly manner following guidelines are proposed for consideration/implementation by concerned authorities.

## 2.0 Guidelines

### 2.1. Material for Idol Making:

Traditionally, Ganesh Idols are expected to be made of natural clay from river bed/banks. However, availability of clay or white clay "Shadu" and also cost has put limitations and therefore now a days mostly the idols are made of Plaster of Paris (PoP). In recent past, with the efforts of NGOs and Government efforts are being made to promote idols made of Clay or combination of a material which has reduced pollution impact on natural water bodies. An experiment conducted at Central Laboratory using three types of idols viz. PoP, Shadu clay and Eco-idol (Clay 40%, Paper Pulp 60% with natural/eco colors) has revealed that PoP idols do not easily disintegrate in water where as Shadu idols can within 30 min and Eco-idols disintegrate within 150 min. On the basis of findings of an experiment, following is proposed:

- i) Idols should be made from natural materials as described in the holy scripts. Use of clay, may be in combination with eco friendly material.
- ii) Considering the limited availability of natural clay and longer time required for its reformation, deposition and ecological imbalance due to its removal, it is recommended to encourage the use of alternative recyclable material like paper pulp, metal, wood, vegetative fiber, stone etc. which could be easily disintegrate/reused /recycled.
- iii) Since the number of house hold idols worshiped and immersed in natural streams/ water bodies, it is recommended to manufacture and use small size of idols, the size of idol for house hold idol should preferably limited to **11" inches or shall** be preferably as small as decided by Local Body considering disposal location and sensitivity to pollution, security etc.
- iv) Community (*Sarvajanic*) Ganesh Mandals idols are normally made up of PoP and/or similar material and may vary size mostly 3-12 ft or more in height. Considering the idol immersion location (depth of water body), where the sea shore is not available and immersion is to take place in River/Pond/Lake, the Ganesh idol size of should not exceed the height prescribed by Local Body considering disposal location conditions and its environmental sensitivity.

## 2.2 Use of Colors for Idol Painting:

Use of attractive bright colors is increasing which may contain metals which are persistent and having tendency of bioaccumulation resulting into ultimate threat to mankind itself. Therefore recommended to:

- i. Restrict use of colors containing metals like Hg, Pb, Cd, Ni, Zn etc.
- ii. Promote use of certified eco-friendly natural and/or biodegradable colors, which are nontoxic, water soluble and free from harmful metals.
- iii. Use of Natural colors used in food products and permitted in Pharmaceuticals may be preferred.

## 2.3 Use of Decoration and Worship Material:

Recyclable and or biodegradable material is recommended to use for decoration.

- I. Worship material like flowers, *vastras* (clothes), decorating material (made of paper and plastic) etc. should be removed before immersion of idols. Biodegradable materials should be collected separately for recycling or composting. Non-biodegradable materials should be collected separately for disposal in sanitary landfills/deep burial or places away from water bodies, eco sensitive area etc..Clothes may be sent to local orphan house(s).
- II. Alternate approach for disposal of worship material by using *Nirmalya Kalash* is strongly recommended. Provision of *Nirmalya kalash* should be made by Local Body. Due care shall be taken to keep this place clean, avoid overflowing and timely disposal to avoid any local nuisance to surrounding area.

## 2.4 Guidelines for Idol Immersion:

- I. Immersion of idols irrespective of material used for idol making and size shall be discouraged and over the period must be restricted in a land locked water bodies such as dug well, ponds, lake, dam **used for drinking and fishing purpose.**
- II. The 'Idol Immersion Points' shall be cordoned and barricaded at lake & artificial ponds. Synthetic liner, Bambo and wooden logs may be placed in the bottom, well in advance. The said liner shall be removed on completion of immersion ceremony so that remains of idols could be taken to suitable place for safe disposal.
- III. Local Body should provide artificial ponds with the help of NGOs/ Ganesh Mandals with liner at adequate depth and size/volume to facilitate idol immersion instead at natural pond/lake.

**A. Guidelines for Idol Immersion in lakes:**

- (a) In case of immersion of idols in lakes or ponds, all the flowers, leaves and artificial ornaments of idols should be removed and idols may be immersed into a corner of pond using removable synthetic liners in the bottom.
- (b) Seasonal lakes, streams or rivers used for drinking water purpose should be strictly prohibited for idol immersion.
- (c) Post immersion, liners may be taken out along with remains of idols and lime should be added to the pond water for settling the solids. Desludging of the pond should be undertaken afterwards.
- (d) In spite of all efforts, if *Nirmalya* finds its way to water bodies it should be removed with the help of Life guards and fisher mans, NGOs on voluntary basis. The monitoring and implementation responsibility lies with Local body.

**B. Guidelines for Idol Immersion in Rivers:**

- (a) Temporary ponds having earthen bunds along river bank should be created as idol immersion spots. Removable synthetic liner may be placed well in advance inside the cordoned area. The said liner along with remains of idols should be removed at later within 48 hours of immersion of idols.
- (b) In order to protect the quality of water, the places such as drinking water source from back waters of the dam or back water from Kolhapur type Bandhara used for drinking purpose shall be avoided for idol immersion.
- (c) Pre and post immersion water quality monitoring and implementation shall be carried out by Local body with local assistance of experts, institutions and/or government departments.

**C. Guidelines for Idol Immersion in Sea:**

In case of Idol immersion in sea, immersion plan should be based on size of idol with sufficient depth of water. Motor Boat, *tarafa (buoys)* with life guards with adequate safety equipments be deployed to supervise the immersion. The monitoring and implementation responsibility lies on Local body.

**D. Guidelines for Idol Immersion in Creek:**



In creeks, lagoons and estuaries idol immersion must be planned considering tidal influence/ variations on the day of immersion and post immersion days. Immersion shall be beyond certain depth expected on low tide on subsequent days to avoid re suspension of idols along the bank (s). It is also advised to consider tidal currents in the estuaries/creeks to identify suitable temporary locations/ jetty.

**E. Guidelines for Idol Immersion in Well:**

Immersion of idol in well which is used for drinking water purpose should be completely restricted. Idol immersion in well water is common in many villages where no lake river or sea shore exists. In such villages local body should provide artificial pond / tank for immersion.

**F. Post immersion criteria:**

(a) After completion of immersion supernatant water from artificial ponds may be allowed to flow in River/pond/lake or nalla's as the case may be, after checking for color and Turbidity. Lime may be added in temporarily confined ponds. if required.

(b) Disposal of remaining idols or sludge from artificial pond by post immersion should be done by local authorities within 48 hours of time as landfill in sanitary landfill sites.

**G. Other Recommendations:**

- i. Smaller idols should be practiced at household level and reduction of number of idols should be attempted such as one village one idol or one society one idol also to initiate to reduce the volume of idols in the natural water sources and consumption of natural clay material.
- ii. It would be more appropriate to encourage use of metal (Bronze, Silver, Gold or other metals idols which will definitely reduce immersion of painted idols and the same type of idols can be worshipped years together.
- iii. A co-ordination Committee comprising Police, Non-Government Organizations, Local Authorities, SPCBs, representatives of *pooja* committees and

stakeholders along with NCC, National Green Corps, NSS, Eco-clubs may be set up for guiding the public in carrying out the immersion with minimal impact on water bodies.

- iv. Local Body of Zilla Parishad / Grampanchayat shall make arrangement for providing artificial pond as per the specification. In order to encourage register Ganesh Utsav Mandals and devotees to carry out idols immersion at aesthetically suitable place.
- v. Identification of mass immersion site and establishment of artificial immersion system prior to month, along side of natural pond be made ready by Local body. The monitoring and implementation responsibility lies with Local Government body.
- vi. All the stakeholders such as River Authority, Port Authority, Water Supply Board, Irrigation Department, etc. be consulted for identification of the Immersion Ghats, where flow in stream is naturally available.
- vii. Pre treatment for water from artificial pond, before disposal in natural stream flow and monitoring and implementation responsibility lies on Local body.
- viii. At the immersion sites, burning of solid wastes should not be allowed. The monitoring and implementation responsibility lies on Local body.
- ix. It is recommended for State board to undertake water quality assessment and monitoring

### **3.0 Awareness Programme**

- i. Capacity building for idol makers for alternate approach for colors by encouraging idol makers who are in practice of using eco friendly colors for idols.
- ii. Formation of committee with all related stakeholders and departments like irrigation and water authorities, Police including NGO& Ganesh Mandals to run the campaign.
- iii. Capacity building of local bodies to follow the guidelines and development of material for awareness for local bodies will help proper implementation.
- iv. Public should be educated on ill effects of immersion in the holy water bodies through mass awareness programme..

- v. In order to create awareness among the devotees and Cities for immersion of idol in appropriate manner, Local Body shall take awareness programme in advance before the festivals.
- vi. Thorough print and electronic media people should be educated about the ill effects of such activities on holy water bodies & encouraged to go for “kar-sewa” in order to minimize the adverse effects. The monitoring and implementation responsibility lies on Local body, Media, Publicity Department, Local Bodies, NGOs and State Pollution Control Board
- vii. On site presentation of Audio-visual documentary film along with leaflets and posters regarding ill effects of toxic components of coloring material for mass awareness be arranged.
- viii. Street plays symptomatic of ill effects of idol immersion along with worship and decoration material on water quality of different water bodies be arranged.

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