

KARNATAKA STATE POLLUTION CONTROL BOARD


PROCEEDINGS OF THE 375TH MEETING OF THE TECHNICAL ADVISORY COMMITTEE OF KSPCB HELD ON 21.12.2013 IN THE BOARD MEETING HALL, 3RD FLOOR, "PARISARA BHAVANA", CHURCH STREET, BANGALORE - 560 001.

Members Present:

1.	Prof. Gopal Mugeraya, Professor, Department of Chemical Engineering, National Institute of Technology Karnataka (NITK), Suratkal, Srinivasa Nagar - 575 025.	Chairman
2.	Prof. S.S.Gadag, Sangam, No.612, 15 th Main Road, 1 st Block, 3 rd Stage, UVCE Layout, Basaveshwaranagar, Bangalore - 560 079.	Member
3.	Dr. H.N.Chanakya, Scientist, Centre for Sustainable Technology, Indian Institute of Science (IISc), Bangalore - 560 012.	Member
4.	Dr. R.Siddaramappa, M.Sc. (Agri), Ph.D, Retd. Professor of University of Agricultural Sciences (UAS), #25, "Gangothri", UAS Layout, Nagashettyhalli, RMV 2 nd Stage, Bangalore - 560 094.	Member
5.	Sri Kedarnath Mudda, B.Tech (Chemical), No.17, 18 th Cross, 8 th Main, Upper Palace Orchard, Sadashivanagar, Bangalore - 560 080.	Member
6.	Sri H.Srinivasaiah, Retd. Director of Factories, Department of Factories, Boilers, Industrial Safety & Health and presently Director, Karnataka German Technical Training Institute, COE Building, ITI Complex, Bannerghatta Road, Dairy Circle, Bangalore - 560 029.	Member
7.	Prof. S.K.Gali, Professor & HOD, Environmental Science, University of Agricultural Sciences (UAS), Dharwad - 580 005.	Member
8.	Dr. Sandeep Mudliar, Principal Scientist, E-II, Central Food Technological Research Institute (CFTRI), Mysore - 570 020.	Member
9.	Dr. R.Gopalakrishna, Associate Professor, Department of Physics, Maharani's Science College for Women, Palace Road, Bangalore - 560001.	Member
10.	Dr.S.Manjappa, Special Officer, Research & Development, Visveswaraya Technological University (VTU), UBDT College of Engineering, Davangere - 577004	Member
11.	Sri Dinesh Kumar Alva, Director, Mangalore Academy of Professional Studies (Maps), Chinmaya Lane, Bunts Hostel-Kadri Road, Mangalore- 575 003.	Member
12.	Sri S.Nanda Kumar, Chief Environmental Officer-1, Karnataka State Pollution Control Board, Bangalore.	Member Convener

Member absent with intimation:

1.	Dr. B.S.Jai Prakash, Vice President, Academy of Certified Hazardous Material Managers - India Chapter, Bangalore Institute of Technology, K.R. Road, Bangalore.	Member
----	---	--------

<*><*><*>



Member Convener

ITEM NO: 375:01

Read and confirm the Proceedings of the 374th Technical Advisory Committee meeting of Karnataka State Pollution Control Board held on 28.09.2013.

<*><*><*>

The proceedings of the 374th TAC meeting was read and confirmed with the following modification to;

Item No.374:05: Proposal for establishment for setting up of new Bulk Drug unit by M/s.GPR Life Sciences Private Limited, Plot No.66E & 66F, KIADB Industrial Area, Humnabad, Bidar District.

The last sentence in the 3rd para shall be replaced with "*The committee suggested that the production area ventilation shall pass through two stage bacteriological filters viz. Hepa filters, coupled with advanced ozone filters/U.V. filter*".

Action taken on the previous meeting proceedings was brought to the notice of the committee for information. The committee suggested since the constitution of the new TAC, the action on all the subject shall be placed for the information of the members before the next meeting.

ITEM NO: 375:02

Final draft report of the project entitled "Treatment of Desiccated Coconut and Waste water", submitted by Karnataka State Council for Science and Technology, Bangalore to KSPCB.

<*><*><*>

The report of Karnataka State Council for Science and Technology (KSCST) on the project "Treatment of Desiccated Coconut and Waste water" entrusted by the Board was presented by Prof. Chanakya of Centre for Sustainable Technology (CST), IISc. The study was taken up mainly for evolving a techno economic solution for scientific treatment of waste water from desiccated coconut industries and also to explore possibility of utilizing the coconut water for making value added products.

The study suggested to separate the two main waste water streams at the source namely;

- a) Coconut water and
- b) Wash water.

The investigator has come out with the findings that are to be tackled before subjecting the effluent for treatment and to adopt anaerobic treatment of waste water and also suggested to recover oil as much as possible for better results. For coconut water it is suggested to convert it into "Coconut water wine" or spray-dry it for subsequent value addition and avoiding it from reaching the ETP. Converting coconut kernel water and recovering oil prior to discharge removes over 85% of the overall load to ETP and makes treatment simple.

The investigator informed that the study period set by Board has exceeded as the bench scale studies have been taken up. The committee opined that in such R & D studies, the schedule cannot be adhered to.


Member Convener

The committee after detailed deliberations suggested to accept the report submitted on the R & D work. Further, it is recommended that, a pilot plant could be set up at one of the unit to demonstrate the feasibility of the technology suggested by KSCST.

ITEM NO: 375:03

M/s. Federal Mogul Goetze (India) Limited & M/s. Federal Mogul TPR India Limited,
Yelahanka, Doddaballapura Road, Bangalore Urban District.

<*><*><*>

The Board has observed the chromium contamination of the ground water and soil in and around the residential area of Yelahanka, Doddaballapura road, opposite to Rail Wheel factory residential colony. The cause was identified, as the leaching from Chromic Acid storage tank (CAST) which was in use for a long time by Escorts and Goetze presently M/s Federal Mogul Goetz (India) Limited and M/s. Federal Mogul TPR India Limited.

Directions were given by the Board to the industry to carry out the study of soil characteristics around the sludge storage pits, ground water movement, quality of ground water, erection and operation of the scrubber, installation and operation of the ETP etc. Accordingly, industry has submitted the report. To examine the progress made in restoration of soil and ground water contamination, the issue was referred to TAC sub-committee. The Committee has visited the location on 27.09.2013, submitted a report. It is observed that; the investigating agencies National Geophysical Research Institute, (NGRI) and University of Agricultural Sciences (UAS) to be heard on their findings. It is also recommended that, the remediation processes which are underway are to be evaluated to arrive at a future course of action.

The industry has proposed a treatment plant for treatment of contaminated ground water. They have also proposed to establish a single treatment plant to treat the effluent generated from phosphating and surface treatment activity.

The industry authorities made a presentation on Soil Remediation, Water Quality Remediation and other activities related to soil contamination and ground water contamination.

- Investigation carried out in the earlier chrome plating areas.
- Investigation on the additional potential point of historical chrome contamination within the premises.
- Installation of infiltration gallery for injection of Calcium polysulfide, proposed for soil remediation.
- Providing acid proof tiles at the rotary bath.
- Networking of ground water extraction to draw water and to treat.

The committee after detailed deliberations sought following clarification from the industry:

- Submit details of methodology and the steps followed to arrive at the quantification of contaminated soil, area and depth of soil to be mined and disposed to TSDF. Justification for location identification for soil & ground water.


Member Convener

- There is a mis-match of chrome concentration and the residual chrome within the soil at different depths and huge variation between 2m depth and 11m depth. They have to submit clarification in this regard.
- Technical basis for arriving at the dosage of Calcium polysulfide adopted.
- The justification submitted by the industry that the CPS follow the same path as the pollutant has gone within the soil strata cannot be accepted. The percolation efficiency of Calcium polysulfide shall be worked out along with the rate conversion of Cr^{-6} to Cr^{-3} .
- The quantity of Calcium polysulfide to be injected to the ground water & the methodology adopted for arriving the quantity.
- USEPA has set guideline for soil remediation of chrome pollution & there are well defined procedures laid down for such activities, whether the industry has followed any such guidelines.
- It is observed that chromium concentration has gone beyond the estimated area because of prolonged leaching - action plan to be submitted to tackle this issue.
- Industry shall compile the entire available data and submit a compressive report with a time bound action plan for achieving the desired goal.
- The volume of water pumped from the ground for treatment & quantity of water to be discharged back to the ground shall be matched.
- Submit chromium analysis report of all the bore wells including new bore wells to be dug & furnish efficiency of chromium removal.
- The NGRI report shall be submitted with the plan of action to implement the recommendations if any vis-à-vis the present plan of soil and ground water remediation with time bound action plan.

The committee opined that, the proposal with respect to ground water treatment and treatment plant for phosphating and surface treatment effluent is agreeable. All the treatment units shall be set up over the ground and are to be made impervious.

ITEM NO: 375:04

Proposal for establishment/installation of common incinerator plant of capacity 1.50 MT/hr at Sy.No.75 to 85 of Pammenahalli & Sy.No.7 & 9 of Thimmanayakanahalli, Dabaspet, Nelamangala Taluk of M/s. Ramky Enviro Engineers Ltd., (M/s. Karnataka Waste Management Project) for thermal destruction of incinerating the incinerable hazardous waste generated from the other industries.

<*><*><*>

The project proponents did not appear for the meeting, therefore the subject was deferred.


Member Convener

ITEM NO: 375:05

Proposal for establishment a new Bulk drug unit by M/s. Kshatriya Laboratories Pvt. Ltd., Plot No.106(B), 107, KIADB Industrial Area, Humnabad, Bidar District.

<*><*><*>

The project proponent made a detailed presentation on the material balance, water balance, related environmental issues and the proposed pollution control measures. The proposal is to manufacture bulk drugs of 30 products in 3 groups; each group contains 10 products.

The worst case scenario was examined to evaluate the quality of waste water generation, emissions and generation of hazardous waste. With respect to solvent recovery, a solvent recovery unit is planned. It was explained by the proponent that, at any given point of time only one particular group of products will be under production on campaign basis.

The industry has proposed one solvent stripper for effluent treatment. It is recommended that, one more stripper in series shall be provided for better biological treatment. The industry should examine and select an appropriate proven system to ensure effective VOC elimination before treatment in biological system. It is also suggested that in the production area ventilation air shall pass through two stage bacteriological filter viz., Hepa filters, coupled with advanced ozone filters/U.V. filters.

With the above remarks, the committee recommends that issue of CFE could be considered by the Board.

ITEM NO: 375:06

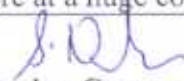
Proposal for establishment new Bulk Drug unit by M/s. Raichur Laboratories Limited, Plot No.126, 127, 128 & 129, KIADB Industrial Area, Raichur Growth Center, Raichur.

<*><*><*>

The project proponent made a detailed presentation on the material balance, water balance, related environmental issues and the proposed pollution control measures. The proposal is to manufacture 25 different of bulk drugs.

The proponent explained in detail about each product considering a batch size of 100 Kgs production and consequent generation of wastes, its treatment and control during the worst case scenario. All the calculations made to indicate the quantum of waste generated is based on stoichiometric equation and not based on any bench scale or pilot scale study. At any given point of time a maximum of 10 products are manufactured. They also explained details regarding solvents used and its recovery. The proponent has planned for an independent solvent recovery unit.

The committee observed that a number of pharmaceutical companies are coming up at Raichur. In order to facilitate the small, medium scale bulk drug units proposed in this area, it is appropriate to establish CETP. Also, the hazardous waste generated is to be transported to the TSDF at Dabaspeta near Bangalore at a huge cost.


Member Convener

Absence of such common facilities and also the proposed unit is Large scale industry it would be advisable to adopt least polluting and less waste generating process route in their operations. Committee opined that, Zero Liquid waste disposal system planned by the industry is appropriate.

The committee recommends for considering the issue of CFE.

ITEM NO: 375:07

M/s. Inbiopro Solutions Private Limited, (A Division of Strides Arcolab Limited), Plot No.293, Bommasandra, 4th Phase Industrial Area, Bommasandra - Jigani Link Road, Jigani Post & Hobli, Anekal Taluk, Bangalore Urban District – 560 105.

<*><*><*>

M/s. Inbiopro Solutions Private Limited, has a facility operating at Peenya. Now they have proposed to establish a new facility at the above location. They intend to wind up the existing operation at Peenya. The project proponent made a presentation on the type of activities proposed at the premises. The proposal is to establish a new R & D facility on Cell & Molecular Biology on Recombinant Human Parathyroid Hormone, Interferon Beta-1b, Hyaluronic Acid (HA), Recombinant Staphylokinase (rSAK), Bevacizumab Rituximab, Recombinant human Bone Morphogenetic Protein (BMP-2 &7). The location is meeting the guidelines set up by the Board in a stand alone building. The Committee after deliberations informed the proponent to furnish the following;

- 1) To specify the list of chemicals used, its specification and quantity along with MSDS.
- 2) Revised list of Hazardous and Non-Hazardous raw materials
- 3) The solid waste should be reclassified into inert, biomedical, bioethical, etc. and to give its quantity and method of management.
- 4) Industry has to examine the requirement of procuring DBT and Bio Safety clearances.
- 5) To make provision to collect the liquid waste separately and to dispose scientifically to CETP instead of draining it into sewers.
- 6) The sterilization process shall be certified by the occupier /responsible person of the facility, an undertaking has to be submitted in this regard.

The TAC also felt that, the wastes potentially contain bio-hazardous, carcinogenic, mutagens, teratogenic, irritants etc. which require to be handled safely with proper decontamination, storage and final disposal to Common Bio Medical Waste Facility. The committee suggested that the production area ventilation shall pass through two stage bacteriological filters viz. Hepa filters, coupled with advanced ozone filters/U.V filters.

On receipt of the information the issue of CFE may be considered. The committee also suggested the site visit of the existing facility by a three member team to evaluate the systems adopted. The report can be presented before the TAC for further review.


Member Convener

ITEM NO: 375:08

Applied for CFE-Expansion for reprocessing of copper etchant from 600 KL/A to additional capacity of 900 KL/A for the recovery/ production of copper powder by M/s. Global Rasayan, Plot No.76, Hebbal Industrial Area, Mysore - 570 017.

<*><*><*>

The project proponents explained about the project. The proponent is advised to furnish the characteristics of the raw material (etchant), the reject management and disposal details, the possible of impurities in the product and its details. Committee also suggested for a field visit by Dr. Sandeep Mudaliar along with Officers of the Board, On receipt of the information from the industry and report from the TAC member, the project could be evaluated.

ITEM NO: 375:09

Stipulating guidelines for management of Municipal Solid Waste according to Municipal Solid Waste (Management & Handling) Rules, 2000.

<*><*><*>

The committee after verifying the guidelines, agreed for adoption of the same.

ITEM NO: 375:10


M/s. Halosource Technologies Pvt. Ltd., Sy.No.11, Cheemasandra Village, Virgonagar Road, Bidarahalli Hobli, Bangalore East Taluk.

<*><*><*>

The authorities were advised to constitute in house IBSC Committee and obtain approval from DBT before discussing the issue in the TAC.

(Draft approved electronically by the
Chairman of the committee)

Sd/-
PROF. GOPAL MUGERAYA
CHAIRMAN
TECHNICAL ADVISORY COMMITTEE
KARNATKA STATE POLLUTION CONTROL BOARD


S.NANDA KUMAR
CHIEF ENVIRONMENTAL OFFICER-1
MEMBER CONVENER, TAC.
KARNATKA STATE POLLUTION CONTROL BOARD