

**KARNATAKA STATE POLLUTION CONTROL BOARD**

**PROCEEDINGS OF THE 380<sup>th</sup> MEETING OF THE TECHNICAL ADVISORY COMMITTEE OF KSPCB HELD ON 05.03.2015 IN THE BOARD MEETING HALL, 3<sup>rd</sup> FLOOR, "PARISARA BHAVANA", CHURCH STREET, BANGALORE - 560 001.**

**Members Present:**

1.	Dr. Jai Prakash Alva, Board Member, KSPCB, No.2, 5 <sup>th</sup> Cross, 4 <sup>th</sup> Main, Pampa Extension, Kempapura, Bangalore – 560 024.	Chairman
2.	Sri. J.G.Kaveriappa, Board Member, KSPCB, No.40, Sri Krishna, 4 <sup>th</sup> 'A' Cross, I Stage, Anandanagar, R.T. Nagar Post, Bangalore – 560032.	Member
3.	Sri. Mohankumar Kondaji, Board Member, KSPCB, No.218, 15 <sup>th</sup> 'C' Cross, Mahalakshmpuram, Bangalore – 560 086.	Member
4.	Dr. B.S.Jai Prakash, Vice President, Academy of Certified Hazardous Material Managers – India Chapter, Bangalore Institute of Technology, K.R. Road, Bangalore.	Member (Invitee)
5.	Dr. Jayateerth R.Mudakavi, Principal Research Scientist, Department of Chemical Engineering, Indian Institute of Science (IISc), Bangalore – 560 012.	Member (Invitee)
6.	Dr. Pushpalatha Manjunatha, Consultant Microbiologist, No.335, Double Road, Indiranagar, Bangalore – 560 038.	Member (Invitee)
7.	Sri. S.Nanda Kumar, Chief Environmental Officer-1, Karnataka State Pollution Control Board, Bangalore.	Member Convener

**Absent with intimation**

1.	Dr. H.N.Chanakya, Scientist, Centre for Sustainable Technology, Indian Institute of Science (IISc), Bangalore – 560 012.	Member
2.	Sri. H.Srinivasaiah, Retd. Director of Factories, # 15/4, A-2, Cartlemaine Apartment, Jayamahar Main Road, Bangalore – 570016.	Member
3.	Dr. Sandeep Mudliar, Principal Scientist, E-II, Central Food Technological Research Institute (CFTRI), Mysore – 570 020.	Member

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**ITEM NO: 380:01**

Read and confirmed the Proceedings of the 379<sup>th</sup> Technical Advisory Committee meeting of Karnataka State Pollution Control Board held on 23.12.2014.

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The proceedings of the 379<sup>th</sup> TAC meeting was read and confirmed.


**Member Convener**

**ITEM NO: 380:02**

Follow up actions on the proceedings of 379<sup>th</sup> Technical Advisory Committee Meetings held on 23.12.2014.

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Action taken by the Board Office on the proceedings of 379<sup>th</sup> Technical Advisory Committee meeting was noted.

**ITEM NO: 380:03**

Discussion on the report furnished by Dr.H.N.Chanakya, Scientist, Centre for Sustainable Technology, Indian Institute of Science (IISc), Bangalore on **M/s.Ramky Enviro Engineers Ltd.**, at Hyderabad regarding performance hazardous waste incinerator at Hyderabad.

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As per the decision in the 379<sup>th</sup> TAC meeting, Dr.H.N.Chanakya, Member, TAC and Sri.S.Venkatesha Shekar, Senior Environmental Officer, Waste Management Cell visited Hazardous Waste Incinerator Facility at Kazipally area of Hyderabad on 31.12.2014 and furnished the report with the observations. Sri. S.Venkaresh Shekar, made a presentation on the site visit.

The incineration facility at Hyderabad is working since 2001. The facility has laboratory for finger print analysis of the hazardous waste. Facility for storage of solid and liquid waste is provided. The incinerable waste with calorific value more than 2500 kCal per kg and other chemical wastes are incinerated in the rotary kiln at 800 to 850<sup>o</sup>C in the first chamber and 1050 to 1100<sup>o</sup>C with 2 seconds residence time for secondary combustion. For control of air pollution cyclones and dust collector have been provided. The leachate from the landfill is also taken for incineration by drying it using the waste heat and the solid are burnt in the incinerator. The plant is operated moderately high level of professional capability.

Products.

After deliberation and perusal of the report, the TAC has resolved as under;

- 1) The overall plant should be covered adequately and protected from rainfall.
- 2) Online monitoring of the plant control systems shall be boosted up with a backup sensors or a shut down trigger whenever there is failure in the system. There should be twice hourly verification of the sensors.
- 3) Facility for VOC monitoring should be provided for safety against leak.
- 4) Considering the sensitivity of the operation there shall be proper buffer between the habitations and the unit.
- 5) The operator should deploy personnel with high level technical expertise and the Board should frequently asses the performance.

  
**Member Convener**

- 6) The project proponent explained that due to the chemical nature of the incinerable waste, the heat cannot be used for power generation as it will affect the system and not techno economically viable. However, the committee suggest that, the proponent should study the systems in other parts of the world where the incinerator is supported with power co-generation.

With the above observations, the proposal could be cleared.

**ITEM NO: 380:04**

Consent for Expansion for manufacture of additional products in existing premises at Plot No. 254, 255, 256, Belur Industrial Area, Dharwad by **M/s. Nandu Chemical Industries Ltd.**

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Nandu Chemical Industries Limited is manufacturing Sodium Phosphate, Sodium Acetate, Sodium Chloride and Potassium Chloride of medical grade. The main process involved is refining the raw material. The industry is consented by the Board to manufacture 19 new inorganic chemicals that is also by purification of basic chemicals. Apart from the above, industry has proposed to manufacture 32 basic organic chemicals, synthetic organic chemicals and chemical intermediates.

The project proponent made a presentation on the proposed route of manufacture of 32 products mentioned above. The process carried out are with simple reactions, using pure quality raw materials, acids and alkalis, the main activities being ;

- (i) Acid-base neutralizations, wherein the metal ion of the alkali replaces OH of the acid producing the product, water and/or carbon dioxide.
- (ii) Acetates, gluconates, citrates and lactates are produced by neutralization of respective acids with metal hydroxides, oxides and carbonates having very low solubility product.
- (iii) Size reduction of coarser material to smaller particle size as per the requirements of the customer. The pulverizer is provided with suitable bag filters to take care of powder emissions.

The mother liquor generated in the process is recycled back. Whenever the mother liquor attains a stage of rejection it will be crystallized and used for secondary purposes.

In the present operation, industry generates solid waste about 270 KPD in the form of salt sludge containing impurities such as calcium carbonate, calcium, phosphate, magnesium hydroxide and barium sulphate. This solid waste is mixed with bottom ash generated from the boiler and disposed as manure. The project proponent is advised to characterize the waste and to furnish the data to the Board.

The committee opines that, for the proposed 32 products consent could be granted.

  
Member Convener

