



# THE GREEN TABLOID

For Private Circulation Only

A Hubert Enviro Care Systems (P) Ltd Initiative

Issue #1 August 2012

## HECS Launches The Green Tabloid ahead of its 15th Anniversary

As a part of our 15th Anniversary Celebrations we have launched the first issue of our Bi-Monthly Newsletter "The Green Tabloid". This Newsletter is a part of a slew of Green Initiatives we hope to implement this year. Through this Newsletter we hope to effectively create awareness among our Readers in areas of Environmental Technological Advancements and instill a sense of Environmental Conservation. We hope that this initiative would be successful in fulfilling its purpose.

- TGT Editorial Team

### CEO's Desk



Dear Readers,  
I am immensely pleased that we have successfully launched the first issue of our Bi-Monthly News Letter –The Green Tabloid.

The prime motive behind launching this Tabloid is to create Green Awareness and Instill Involvement in areas of Green Conservation among our Clients, Vendors , Employees , Associates and the society at large. This tabloid attempts to cover environmental matters, Technology Developments, legal updates and HECS Events.

I request everybody to support this endeavor and make "The Green Tabloid" a great success. Since this is our first issue, we warmly welcome any suggestions or valued inputs.

Dr. J R Moses  
CEO, HECS

### GREETINGS FROM OUR WELL WISHERS:

*"It gives me immense pleasure to know that HECS is launching a news-letter "The Green Tabloid" on the 15th August 2012. I am sure that this would enhance and widen the knowledge of awareness, protection and improvement of our environment together with reduction of carbon footprint. I would like to convey my best wishes to entire team of Hubert Enviro Care for the success of this news-letter."*



**Mr. K Prabhakar, Chief Projects, Apollo Tyres Ltd.**

*"On behalf of GSL Medical College & General Hospital, Rajahmundry, I convey my sincere regards to HECS on the launch of "The Green Tabloid" an environmental news magazine on Independence Day.*



**Dr. Bhaskar Ganni, Chairman, GSL Medical College & General Hospital**

*"I would like to congratulate HECS on launching its in-house News-letter 'The Green Tabloid'. My best wishes"*

**Mr. Bhaskar Sandeep, Sr. Manager (Projects), Ascendas International Techno Park Chennai Ltd**

*Long years ago, we made a tryst with destiny and now the time comes when we shall redeem our pledge... At the stroke of the midnight hour, when the world sleeps, India will awake to life and freedom.*

**-Jawaharlal Nehru**

*Indian Declaration of Independence, on the Eve of Independence, August 15 1947*

*Happy Independence Day!*

On this Momentous Day of Great Pride and Joy, TGT would like to wish all its readers a Happy Independence Day!

### In This Issue:

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**Mr. Viji Santhanam, MD Brakes India Ltd Inaugurating their ETP Facility**

## Project Updates

The first quarter of 2012 has been very active with the successful completion of several projects and implementation of new ones. Here is a quick look at some of our major projects.

### Major Projects Completed Last Quarter

#### 1. Brakes India Ltd - Effluent Recycle System



**RO Membranes**

HECS successfully commissioned an Effluent Recycle Plant for Brakes India Ltd, Chennai in a record time of 4 months. The Plant was inaugurated by the Company's Managing Director Mr. Viji Santhanam along with the Director TRW, Mr. M.V. Sethuraman, Divisional Manager and Mr. M. Thiyagarajan, Senior Engineer.

The Raw effluent from different sources were collected for almost a year and the inlet water analysis was fixed with its band of variation in quality parameters. The Effluent Recycle Plant outlet renders the water fit for any process applications. This Plant is fully Automated with PLC Control System and Human Machine Interface (HMI) and is connected with Building Management System (BMS) as well. The plant and its accessories are corrosion proof and incorporates the State of Art Recycling Technology and Process, leading to Zero Discharge Concept.

#### 2. Trivandrum Airport - Sewage Treatment Plant

HECS successfully completed and commissioned in the month of June a 500 KLD Sewage Treatment Plant with collection system for Airport Authority of India (AAI) Trivandrum. Several challenges were faced in the course of the project which included severe sea water intrusion in underground works, it was scientifically mitigated by our Civil Team. This plant is being used to treat sewage from Trivandrum Airport's Domestic and International Terminals, Township and also Aircraft Toilet Discharges.

#### 3. CMWSSB Kumbakonam - Sewage Treatment Plant

HECS successfully commissioned 2X17 MLD Sewage Treatment Plant for Chennai Metropolitan Water Supply and Sewerage Board at Kumbakonam. Operations and Maintenance services were started subsequently from the month of June. This plant consists of Grit separators, Primary/Secondary Treatment and Chlorination. The treated water is used in irrigation.

Apart from these HECS has successfully completed over half a dozen small and medium projects.



**Birds-Eye view of the CMWSSB Kumbakonam Sewage Treatment Plant**

## HECS News

### HECS Signs JV Agreement with UTICO, UAE

HECS signed a Joint Venture Agreement with UTICO, United Arab Emirates on 27th June 2012 for joint working in establishing large Sewage & Waste Water Treatment Plants in India.

### HECS Begins Expansion of its Mangalore Facility

In view of expanding its Operations in Karnataka, HECS purchased a Factory Shed at Karnataka Industrial Development Board (KIDB) Industrial Estate at Baikampady, Mangalore. This 3500 sq ft facility is currently being revamped to accommodate the present Office & Laboratory at Kulai, Mangalore. The renovation is expected to be completed by the end of this calendar year, the Laboratory & Office is expected to shift to this state-of-the-art facility soon after.

### HECS Starts Construction of its Second Manufacturing Unit in Chennai

HECS started construction of its second manufacturing unit at Thirumalaivayal Industrial Estate, Chennai. This manufacturing unit is scheduled to be completed by the end of 2012-13 financial year.

### Ongoing Projects

1. AAI Pondicherry—Sewage Treatment Plant.
2. IITDM Kancheepuram—Sewage Treatment Plant
3. Techno Park, Trivandrum — Sewage Treatment Plant
4. Neyveli Lignite Corporation—UF Sewage Treatment Plant
5. TWAD Thiruvarur—Sewage Treatment Plant
6. NTPC SAIL Power Ltd Bhilai—Sewage Treatment Plant
7. TWAD Thiruvallur—Sewage Treatment Plant
8. APGENCO Chelpur, AP—Sewage Treatment Plant



# The National Green Tribunal

Ensuring Citizens their right to a healthy environment

## Background

On the night of December 2nd 1984 the Bhopal Gas tragedy occurred, where Methyl Isocyanate (MIC) gas leakage from Union Carbide Plant caused one of the world's largest tragedy. This resulted in death of more than 8000 people and disabled/injured more than 6 lakhs.

In light of this tragedy the erstwhile Department of Environment formed in 1980 was upgraded to a Cabinet level Ministry and named as Ministry of Environment and Forests (MoEF) in 1985. Subsequently the Environment (Protection) Act was passed on 23rd May, 1986 through which State Pollution Control Boards were formed.

Unfortunately most people who suffered in the same were poorly compensated, that too after several years of court trials. This clearly pointed out to the inadequacy of the existing provisions in dealing with such disasters. The National Green Tribunal aims to ensure that such Environmental Disasters are averted in the future and victims are properly compensated and receive quick justice.

## The National Green Tribunal (NGT)—Formation

The concept of a National Green Tribunal is not something new. For the last couple of decades several courts around the country have recommended the formation of an Environmental Court dedicated to take up cases relating to environmental conservation and degradation.

After several years of deliberation, The National Green Tribunal was established in October 2010 under the National Green Tribunal Act 2010 to effectively handle environmental litigations. Unlike other environmental laws this bestows ample powers to the Tribunal in case its orders are not complied with. Another key feature of this Act is the inclusion of the scientific community. In view of handling Environmental cases which require technical knowledge, the Act proposed a 20 member tribunal with half of its members being Judicial experts and the rest being Environmental experts.

A Key factor of the National Green Tribunal is that it is known to for its transparency. It holds high the principles of accountability and transparency in all its functions. All of its decisions are published online on a daily basis and is made accessible to the public.

## A Look at some NGT's Landmark Judgements:

### NGT Suspends POSCO India's Environmental Clearance

The National Green Tribunal Suspended the Environmental Clearance given to South Korean Steel Major POSCO's 12 Billion Dollar Project in Orissa, believed to be the biggest Foreign Direct Investment in the Country. The tribunal asked the Environmental Ministry to relook into the project and alleged that there was departmental bias in favour of the project.



The project, a 12 million ton Iron and Steel Plant, has been one of India's most hotly debated industrial projects. While POSCO supporters see the project as a boost for India's investment credentials, adversaries point to major irregularities and violations of law, human displacement, and the potential of large scale environment disasters. For the last seven years ever since the project was proposed large scale protests have erupted throughout the country. The NGT in its order has noted that the full impact of the project is yet to be measured, since environmental impact assessments were made only for a 4 million ton plant, not the full 12MT which POSCO plans to expand in future. *Source: The Hindu, TOI*

### NGT sets aside Environmental Clearance granted to Perungudi SWM Plant.

The National Green Tribunal delivered a jolt to the State Environmental Clearance given to Chennai Corporation Integrated Solid Waste Management Project at Perungudi. The Court observed that the project is within 10kms from the Guindy National Park a protected area and hence as per EIA Guidelines Clearance can be accorded by MoEF alone. The court pulled up the Chennai Based Environmental Consultant for deliberate concealing of facts which amounted to professional misconduct.

*Order dated 24.2.2012 V.Srinivasan Vs Tamil Nadu State Level Environment Impact Assessment Authority and Others*

## Overview

Ever since its inception the National Green Tribunal has been a new beginning in India's struggle between Environmental Preservation and Development.

### Jurisdiction:

The National Green Tribunal deals with cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property.

### Key Features:

The Tribunal has the same powers as are vested in a civil court under the Code of Civil Procedure, 1908.

The Tribunal is mandated to endeavor towards disposal of Applications and Appeals within 6 months of filing the same

Any appeal against orders of the tribunal can be made only at the Supreme Court.

The five places of its sitting are at Delhi, Bhopal, Pune, Kolkata and Chennai.

### Chairman:

On 1st January, 2012, Justice A S Naidu, an Ex-Judge at the Odisha High Court, replaced Justice Lokeshwar Singh Panta as the second Chairman of the National Green Tribunal.

### Similar Green Benches Worldwide:

Land & Environmental Court of New South Wales, Australia.

Environmental Court of New Zealand

Vermont Environmental Court, USA.

# Exploring the Membrane Bio Reactor

Dr. A Yudhistra Kumar, R&D Center, HECS.

## Background

Sewage Treatment has undergone tremendous changes over the last century. Starting from the Village Pond Oxidation methodology there has been continuous technological changes and upgradations. Fifteen years back HECS adopted the Activated Sludge Process (Extended Aeration), over the years it upgraded it to Submerged Aerobic Fixed Film (SAFF) and Mixed Bed Bio Reactor (MBBR) with Ultra Filtration. Since 2009 HECS started exploring the MBR technology and initiated designing, erection and commissioning of MBR plants. We have successfully erected and commissioned our first 250 KLD MBR sewage treatment plant at Bharat Dynamics Limited, Hyderabad, which is presently in operation.

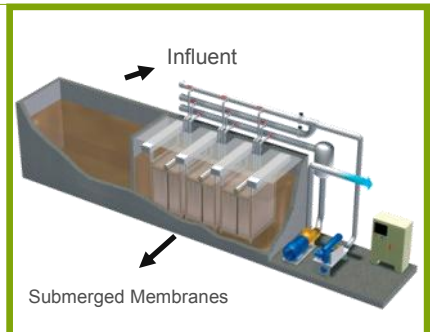
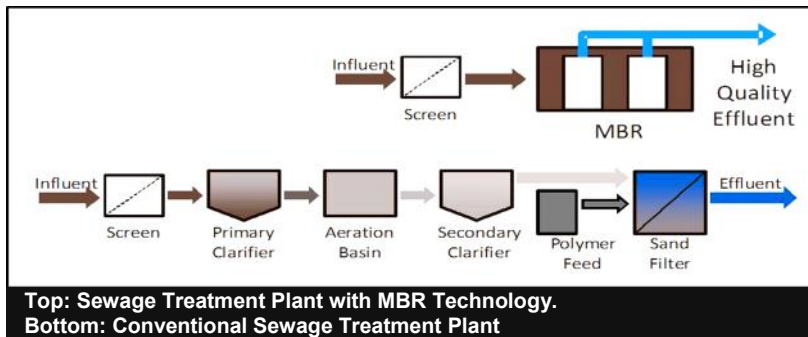
## Membrane Bio Reactor Technology

In simple words a membrane is a material which separates solids from liquids. In this process the membranes are directly submerged in the activated sludge. The activated sludge (biomass) is separated from the liquid as it passes through the membranes and is retained in the biological reactor. The application of membrane bio reactor eliminates the need for secondary clarification tank. The elimination of secondary clarification and reduced aeration tank size offers significant reduction in footprint of the facility. MBR Technology produces good effluent quality which exceeds conventional standards.

### MBR Configurations:

**Submerged:** Membranes are directly submerged in the bio—reactor.

**Sidestream:** Membranes are a separate unit and require intermediate pumping.



## Effluent Quality

Description	Outlet	Standard
pH	6.0-8.5	5.5-9
TSS (MG/L)	<5	<30
BOD (MG/L)	<5	<30
COD (MG/L)	<30	-
Oil & Grease	<5	-

### Advantages:

- Smaller footprint compared to conventional STP's
- Good effluent quality with hygienic standards.
- Reduced Sludge Production
- Less manual errors

### Disadvantages:

- Higher Capital Cost
- Higher Power Consumption
- Dependence on Imports



Independence Day celebrations at Genesis Playschool (Run by HECS Trust) on August 11, 2012.

## HECS - In House News



Chengalvarayan (Tech Services) recently had a new member added to his family, Munna. Congrats!



Karunakaran (Projects Div) and his wife Elakkiya on their wedding day. Congrats!



Quinton Thompson (PMC) and his wife Premalatha on the day of their marriage (July 15, 2012). Congrats!



Munnuswamy (Lab Services) and his wife Sukanya on their wedding day (May 7, 2012). Congrats!

If you would like to highlight any events or contribute any articles or suggestions email [tgt@hecs.in](mailto:tgt@hecs.in)

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