

**BIOGAS PLANT AT
SWAMI VIVEKANANDA STATE POLICE ACADEMY, BARRACKPORE**
A Successful venture done by West Bengal Pollution Control Board as a waste to energy
project

A Success Story



Swami Vivekananda State Police Academy located at Barrackpore is the State Police Training Institution spreading over an area of 22,568 Sqm. conducting basic training for Dy.SP Probationers, Cadet Sub-Inspectors of Armed & Un-Armed branches and Recruit Constables for West Bengal Police and for Sub-Inspectors and Sergeants of Kolkata Police.

Apart from being an important place for training it is well known for its history dating 11th April, 1948 when it was set-up at Barrackpore on the bank of River Ganges. The Nissan Hut structures left behind by the British Army after the World War-II were utilized on ad-hoc basis for the official works and accommodation of the trainees and instructors. Subsequently, Subsidiary Training Center was established under the control of PTC, Barrackpore. It was which later from 1st August 2011 'Police Training College, Barrackpore' was renamed as 'Swami Vivekananda State Police Academy, West Bengal' which today stands as a proof of British colonial architecture through the famous 'Lathbari' and houses the ossuary of Lady Canning, wife of Charles Canning, the Governor-General of India during 1856-62 whose name became most commonly used as one of our most famous sweets was named after her popularly known as 'Ledikeni' as being her favourite sweet ever since she tasted it for the first time.

Now, with a vision for a cleaner and greener city Dr. Kalyan Rudra, Chairman WBPCB and Dr. Subrat Mukherjee IFS, Member Secretary WBPCB was moved by the importance of the training facility and its rich history when shared by Sri Soumen Mitra IPS, Additional Director General Of Police, Training and decided to extend its support for making it West Bengal's 1st Green Campus which will be a model for all to follow and decided to take a bold step to setup a waste management facility at Swami Vivekananda State Police Academy starting with kitchen waste from two big kitchens which serve daily three square meals to nearly 800 trainees per day and considerable quantity of organic biodegradable kitchen waste is produced every day from the kitchen. Previously, the said waste was thrown away by the side of drain polluting the surrounding and into the river Ganga also.

Once, conceptualized by Dr. Kalyan Rudra, Chairman WBPCB and Dr. Subrat Mukherjee IFS, Member Secretary WBPCB the idea was taken up with Sri Soumen Mitra IPS, Additional Director General of Police, Training and Sri K.Jayaraman IPS, Director SVSPA and was readily accepted considering the need for a healthy facility and required support from West Bengal Pollution Control Board.



Finally, the Biogas Project was initiated for generating Biogas from Kitchen Waste to be used for cooking purpose in the canteen under supervision of Sri Subrata Ghosh, Chief Engineer WBPCB and was completed within a period of 45 days followed by a trial period of 15 days prior Inauguration on 29th August 2017 in presence of by Dr. Kalyan Rudra, Chairman WBPCB, Sri Soumen Mitra IPS, Additional Director General Of Police, Training,

Sri K. Jayaraman IPS, Director SVSPA and Sri Subrata Kumar Mitra IPS, Commissioner Of Police Barrackpore along with other dignitaries.



Today, the Biogas Digester is running successfully providing cooking fuel equivalent to around 10 Kg of LPG daily saving substantial cost on cooking fuel for the Academy eradicating the impact of unplanned disposal of kitchen waste on the environment.

The other relevant details about the commissioned Biogas Plant at SVSPA are as follows;

- ❖ Biogas Plant Model – KVIC Floating Dome
- ❖ Input Material – Kitchen Waste (vegetable & cooked food waste)
- ❖ Biogas Digester Size – 20 m³
- ❖ Gas Holder Size – 15 m³
- ❖ Biogas Generation Quantity – 20 to 25 m³ daily
- ❖ Biogas Generated Equivalent to LPG – 9 Kg to 11.25 Kg daily
- ❖ Operation & Maintenance – Cleaning of gas chamber and painting of metal parts with occasional replacement of pipes whenever required
- ❖ Life of Digester – 20+ years based on maintenance
- ❖ Cost of Construction – 12 lacs (approx.)
- ❖ Output Material – Slurry (organic manure) in Slurry Tanks used for gardening
- ❖ Time for Completion of Project – 60 days (45 days + 15 days trial)

Observing the success of the Biogas Plant it has been decided to commission another Biogas Digester in Swami Vivekananda Sate Police Academy for generating Biogas from Horse Dung from the stable housing 40 + training horses which will be another Model Project 1st of its kind in Eastern India setting a new benchmark for others to follow in Bengal.