




We Enrich Nature



SMS
ENVOICARE LTD





Seeing is believing... Well, think again!

Just because we clean our living space, workplaces and neighborhood regularly and dispose off the waste, that litters it, many would actually believe that they are living on a cleaner and safer Planet.

Nothing could be further than the truth. No doubt waste is collected and disposed the way it should be, but the fact is that it's merely shifted from one place to another. It remains and resurfaces in other forms polluting the environment and disturbing the balance of natural ecosystem. The answer lies in shifting the focus from waste disposal to waste recycle. A few years back, this would have seemed impossible! But now, thanks to the availability of various breakthrough technologies for scientific disposal of different types of waste, the principle of Recycle, Reuse and Reduce can be implemented effectively in addition to generating Power from the waste.



An insight into the 'eco-conscious' world of SMSIL

SMS Infrastructure Ltd. (SMSIL) is a company with an outstanding track record of Quality & Technical expertise with engineering capabilities since 1964. The company has been gratified with several National Awards for exemplary work in its field. Our company has proved to be one of the best in the development of various infrastructure projects including Highways, Railway Sidings, Mining, Irrigation, Tunnels, Power and Environment.

SMS ENVOCARE Limited (SMSEL) is a Group Company of SMS Infrastructure Ltd., Nagpur, engaged in providing Environmental Infrastructure Projects and Consultancy Services. It has engaged a dedicated and well experienced personnel and a panel of professional engineers, chemists, technologists, environmentalists and research scientists who have extensive experience in the field.

Acknowledging the need of the hour, SMSEL has also added several Environmental Services to their portfolio to help Entrepreneurs worldwide to make the globe Clean, Green & Eco-friendly.



Vision

To Create 'National Prominence' and 'International Presence' in Environmental Infrastructure Projects & Enrich the Nature for Better Tomorrow.

Objectives

- To provide specialized services & solutions for diversified Environmental Issues
- To develop common solid as well as liquid waste management & disposal sites on BOO, BOOT & EPC basis
- To assist entrepreneurs in getting all Legal & Environmental Clearances right from establishment to commissioning
- To train & provide services to industries for effective management of Effluent & Hazardous Waste
- To provide Ambient / Environment Monitoring Services to the industries & infrastructure projects
- To improve the efficiency of the existing ETP / STP by undertaking performance audits
- To train industries on the 3R's (Reduce, Recycle & Reuse) concept
- To provide specialized services for Safety Audit, Risk Assessment and HAZOP studies

**Where Technology
meets Competence**





CHWTSDF's Facility at Ranjangaon, Pune and Butibori, Nagpur

A CHWTSDF facility is set up in accordance with the Hazardous Waste (Management, Handling & Transboundary Movement) Rules 2008. The project is promoted by Maharashtra Industrial Development Corporation (MIDC) and is authorized by Maharashtra Pollution Control Board (MPCB) on Build, Own, Operate and Transfer (BOOT) basis for 20 years & post monitoring period of 30 years.

The ultra-modern CHWTSDF Project offers the following facilities :

Logistics

- Fully mechanized transportation fleet system to ensure that human contact and exposure to hazardous waste is minimized
- Specially designed hydraulic containers for the waste collection and transportation with different capacities
- Well-covered leakage / spillage proof fleet system
- All Vehicles are equipped with required Safety Gears and Fire Extinguishers to fight the untoward incidences during transport
- Well educated and skilled drivers and helpers to ensure safe transportation of Waste
- Global Positioning System (GPS) is in place to track the vehicles

Weighbridge

Weighment of Hazardous Waste plays an important role in operating TSDF Facility. Weigh Bridge, with the capacity from 0.2 to 60 MT, is in operation at the Facility.

Laboratory

The Facility is provided with a state-of-the-art laboratory, having sophisticated instruments and equipment to cater the fingerprint & comprehensive analysis of waste. The laboratory is manned by qualified and experienced lab professionals. The laboratory is also equipped with various other instruments to cater the needs of Environmental Monitoring.

Stabilization / Solidification

The HW having more concentration of heavy metals needs to be solidified / stabilized before landfilling. In this process, after analysis of heavy metals, waste requiring pre-treatment before landfilling is stabilized with various ingredients, to make it less toxic. Laboratory trials are carried out to decide the quantity of stabilizers required for individual type of waste to stabilize and solidify before landfilling. The process of stabilization and solidification is fully automatic and mechanized with the capacity of 5 MT per hour.

Waste Storage : Where safety is not compromised

We understand the importance of safety for storage of hazardous waste and personnel working therein. Various safety measures are implemented in the storage shed and required PPEs are provided to the working personnel. The operation and maintenance of storage facility is in line with CPCB guidelines for storage of hazardous waste.



Secured Landfill

The design of our secured landfill is in accordance with the CPCB guidelines. Systematic operation of landfill ensures that environment around is not adversely affected. The environment is regularly monitored with respect to air, soil and ground water to ensure compliances as per the prescribed norms. During the monsoon period, filled up waste in the secured landfill is covered by HDPE film to protect contamination of ground water. Once filled, SLF is suitably covered as prescribed.

Plasma Gasification Technology

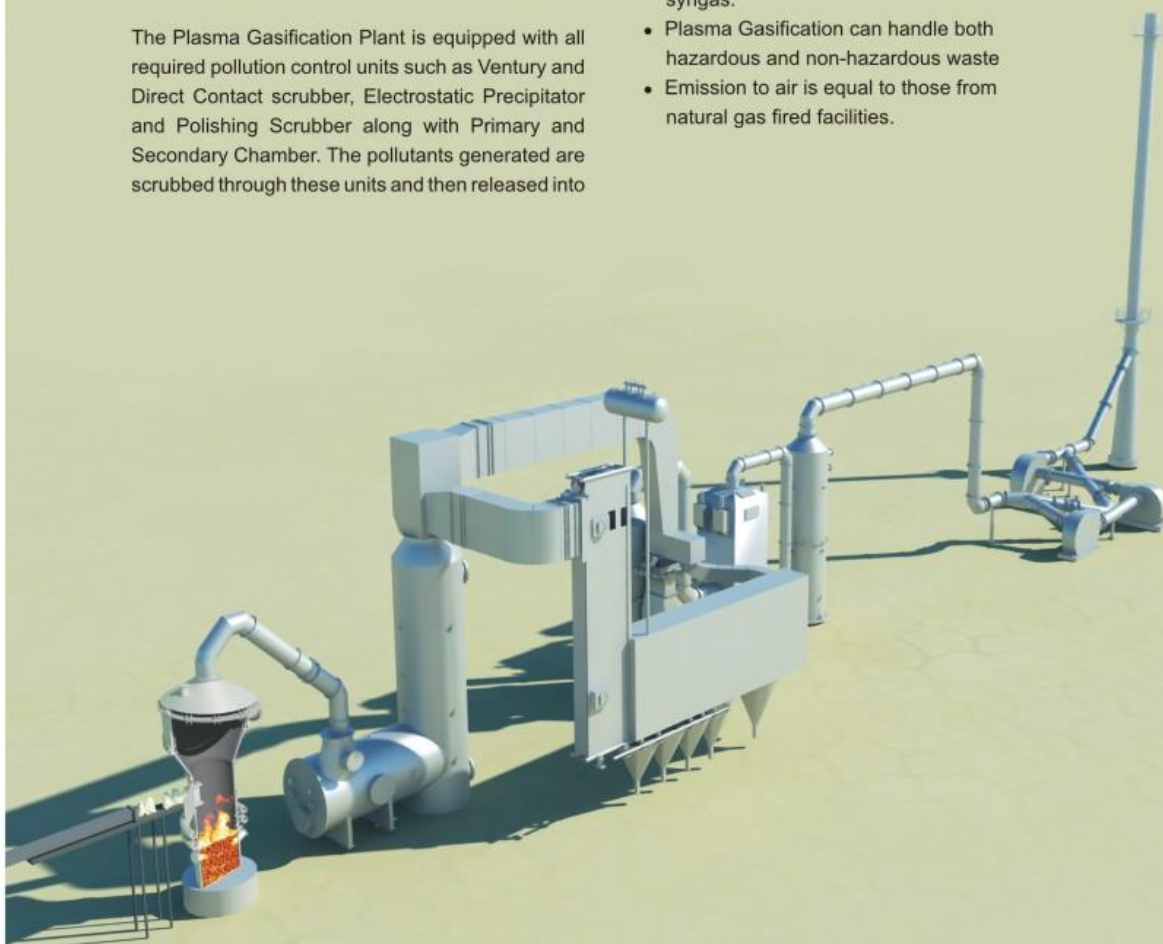
SMS Infrastructure Ltd. has ventured into a strategic alliance with Alter NRG, the owner of WPC (Westinghouse Plasma Corporation – USA), to get technological support to fulfill its mission to create a cleaner planet! The refractory lined Plasma Reactor houses Plasma Torches for Gasification of HW at uniform temperature of 1100°C to 1200°C. In Plasma Gasification Technology, heat nearly as hot as the Sun's surface, is used to break down the molecular structure of any carbon containing materials, such as HW, municipal solid waste (MSW), tires and sewage sludge, and convert them into syngas that can be used to generate power or other sustainable sources of energy. Gasification of HW occurs in an oxygen starved environment so that HW is gasified and not incinerated.

The Plasma Gasification Plant is equipped with all required pollution control units such as Ventury and Direct Contact scrubber, Electrostatic Precipitator and Polishing Scrubber along with Primary and Secondary Chamber. The pollutants generated are scrubbed through these units and then released into

the atmosphere through a tall chimney of 45 meters height. The system has modern instrumentation for process control with SCADA system. A Waste Heat Recovery Boiler and Turbine has been commissioned for power generation.

Salient Features :

- There is no dioxin & furan formation in Plasma Gasification, which is the most common problem in traditional Incineration.
- It generates vitrified slag in place of toxic ash, thus eliminating problem of disposal of ash.
- The Plasma Torches disintegrate all types of organic matter and converts it into syngas.
- Plasma Gasification can handle both hazardous and non-hazardous waste
- Emission to air is equal to those from natural gas fired facilities.



**Intelligent Waste Management :
The key to a secure future**



Bio-medical Waste Management

In pursuance of the Bio-Medical Waste (Management & Handling) Rules 1998 and subsequent Amendments of 2000 dated 2/6/2000 and 2003 dated 17/09/2003, it is mandatory to segregate medical waste in color coded bags and treat them as per the rules. Proper segregation of waste reduces the chances of injury and infection. Therefore, segregation of hospital waste can only be done at the source of generation properly.

Yellow Bags / Bins

(Waste for Incineration)

- Human and animal tissues / organs
- Body parts
- Non plastic contaminated or soiled waste
- Plaster casts
- Dressing swabs & bandages
- Microbiological and pathological / lab waste etc.

Red Bags / Bins

(Waste for Autoclave, Microwave, Chemical Disinfection followed by Shredding or Mutilation)

- All plastic disposables contaminated with blood or human secretion

- Syringes
- I.V. sets
- Plastic culture plates
- Tubes
- Catheters
- Cannulas
- Eurobags
- Blood bags
- Surgical gloves, etc.

Blue Bags / Bins

(Waste for Autoclaving, Microwaving, Chemical Treatment and Destruction / Shredding)

- Sharp waste materials like needles, scalpels, blades
- Broken glass / ampoules, etc. that may cause puncture and cuts
- All sharp disposable wastes other than plastic items (only in blue container/ cardboard box)

To ensure a clean and healthy environment, segregate the waste at the source of generation and dispose off the waste in bags with correct color coding.



**Smart Solutions,
Tangible Results**



Waste Water Recycling



Water is the priceless gift of Nature to mankind. Without water, we won't exist. Still, we continue to abuse this invaluable resource.

At SMS Envocare, we provide Effluent treatment plants and sewage treatment plants. SMS Envocare is an expert in providing need based technologies like

- Activated Sludge Process
- Sequencing Bath Process (SBP)
- Membrane Biological Reactor (MBR)
- Moving Bed Biological Reactor (MBBR)

SMS has designed, erected and commissioned various CETP's from 5 to 15 MLD capacities both on BOOT as well as EPC basis.

**Environment is what we make it!
Let's nurture the future together!**



Engineering 'A GREEN WORLD'

Knowledge has no meaning if it's not shared and extended. We provide an array of tailor-made solutions as per requirements of various Industries to share our experience and expertise with all those who are committed towards Environment Friendly operation of their Organization to save Mother Earth for future generations.

Technical Services :

- Assist in procurement of Consent to Establish and Operation
- Undertaking Environmental Impact Assessment Studies for Environment Clearance from SEAC / SEIAA, Government of Maharashtra for different Industries and Infrastructure Projects
- Assist in procuring Environmental Clearances from MoEF, New Delhi, Government of India
- Preparation of Environmental Management Plan
- Preparation of Feasibility Report on Effluent Treatment Plant
- Undertaking Turn-key Projects including Design, Construction, Erection and Commissioning for Effluent Treatment Facilities, Sewage Treatment Plant and Air Pollution Control Facilities
- Industry specific "Resource Management Services"
- Preparation and submission of Annual Returns and Environmental Statement and other statutory requirements to State Pollution Control Boards
- Safety and Environment Audits

- Risk assessment and HAZOP studies
- Plant Performance Audit for existing ETPs and STPs
- Preparation for Detailed Project Report
- Liaison with State & Central Pollution Control Board
- Holding Training and Awareness programs for Industry Personnel at all levels on Environmental Management & safety Issues

Environmental Monitoring Services :

- MoEF approved laboratory services
- Ambient air quality monitoring and analysis as per revised NAAQ standards
- Work place monitoring using GC with thermal desorption system for VOCs
- Stack monitoring
- Ground and surface water monitoring and analysis
- Ventilation and Illumination survey
- Effluent analysis
- Hazardous waste analysis as per the requirements of MPCB / CPCB
- Analysis of raw material / finished product utilizing state-of-the-art laboratory and GC-MS
- Soil analysis
- Noise monitoring



Save WE is the CSR campaign launched by SMS Envocare Ltd. to strategically point out the areas that could be the epicenter of impending problems concerning climate change and global warming.

www.savewe.com

**Count on us for customized solutions
& services for diverse Environmental Issues**

Customer Support And Services :

Divisional Office :
20, IT Park, Parsodi, Nagpur-440022,
Maharashtra, India.
Telephone : +91-0712-6665000
Fax : +91-712-6665100

Pune Office :
301, Pentagon P3, Magarpatta City,
Hadapsar, Pune -411028,
Maharashtra, India
Telephone: +91-020-66801111
Fax : +91-020-66801100

Email – info@smsenvocare.co.in
Website – www.smsenvocare.co.in