

Polycrack Technology

April 22, 2020

Context: Indian Railways has commissioned country's first governmental Waste to Energy Plant, at at Bhubaneswar in East Coast Railway

- **Waste to Energy Plant, a patented technology called POLYCRACK, is first-of-its-kind in Indian Railways and fourth in India.**
- It is world's first patented heterogeneous catalytic process which converts multiple feed stocks into hydrocarbon liquid fuels, gas, carbon and water. Polycrack Plant can be fed with all types of wastes
- The process is a closed loop system and does not emit any hazardous pollutants into the atmosphere. The combustible, non-condensed gases are re-used for providing energy to the entire system and thus, the only emission comes from the combustion of gaseous fuels.
- Pre-segregation of waste is not required to reform the waste. Waste as collected can be directly fed into Polycrack.
- It has high tolerance to moisture hence drying of waste is not required.
- Waste is processed and reformed within 24 hours.
- Biological decomposition is not allowed as the Waste is treated as it is received.
- The foot print of the plant is small hence the area required for installing the plant is less when compared with conventional method of processing.
- All constituents are converted into valuable energy thereby making it Zero Discharge Process
- Operates around 450 degrees, making it a low temperature process when compared with other options.