

3R GOOD PRACTICES IMPLEMENTED BY NGOs/



3R Good Practices in China

NGO /CBO	Shanghai Honghe Environmental Protection and Technology Company Limited
Activity	Recycling waste plastics from MSW to produce oil
OUTLINE OF 3R GOOD PRACTICES	
Keywords	Solid waste ,waste plastic ,recycling, oil
Country	China
Area Implemented	Jinshan District Shanghai
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Waste Sector	Municipal solid waste
3R Practice	Recycling
Website / Data Source	Not Available

OVERVIEW OF PRACTICES

Introduction

Shanghai Honghe Environmental Protection and Technology Company Limited (Ltd.) is a high-tech joint-invested company whose business is mainly for the wastes recycling. Through many years of researches including experiments in the field of oil and chemical techniques and experiences of the applications, they have mastered a new technology of changing the combustibles in municipal solid waste (mainly plastics) directly into the oil and gas which can be used in the landfills to recycle waste plastics and make a good benefit. In Laogang landfill, Shanghai Honghe Environmental Protection and Technology Company Ltd. has set up a furnace and its capacity is approx. 50 -100 tons/day.

3R Good Practices

Based on years of R & D results, the company has obtained a patent for this new technology and applied it in its project. Presently, the technology of changing the wastes into the oil has gone into the stage of demonstration and has completed the test of equipment for its continuous production as well as the design of the project system in the industrialization scale. The equipments of the whole system include a three-stage furnace, a dust collection device and several cooling devices. The combustible wastes were fed through a double door cantilever feeder for gas emitting prevention. The products were first in gas phase and then cooled down to get oils. Dechlorination and desulphurization steps also include in this system.

Outcome of Practices

The technology can be used to recycle energy from combustibles waste. At the same time, it has some economic benefits and offers employment opportunities. By catalytic cracking, we can get the oil (fuel) so as to alleviate the energy crisis to a certain extent. Two tons of plastic wastes can yield 1 ton of petrol and diesel. (As for the clean plastic, 1.5 tons is enough). According to this calculation, 300,000 tons of gasoline and 700,000 tons of diesel can be produced by recycling 15% of plastics wastes each year from landfill which is a considerable amount of new energy. This fuel can be used directly for general civilian industry such as furnace, boiler, power plants and restaurants. Of course, after modulation it can also be used as a power fuel. In this way, we can not only carry out recycling of resources, but also greatly reduce environmental pollution caused by plastics waste.



Plastics in MSW used for Pyrolysis



Products line (furnace, dust collection and cooling)



Products (oil)