

Shanghai Chemical Industry Park (SCIP): safely treating the hazardous waste, heading towards the circular economy

Shanghai Chemical Industry Park (SCIP) is located in the south of Shanghai, north of Hangzhou Bay, with a managed area of 36.1 km². It is one of the world's largest integrated petrochemical bases. In 2003, SUEZ NWS established a cooperation agreement with SCIP to provide hazardous waste treatment services for industrial customers in SCIP.

The mission

SCIP is the largest petrochemical and fine chemical industrial park in China. SCIP acts as the center of six south industrial zones in Shanghai, it is also one of the largest investment industrial projects during the 10th Five Year Plan period. At present, many world class chemical companies such as Sinopec, Covestro, BASF, Evonik, Huntsman, Mitsubishi, Mitsui Chemicals set their business in SCIP.

A large number of chemical companies inevitably bring industrial waste, especially hazardous waste which is in large variety, easy to react in complex processes. Therefore, professional treatment on hazardous waste is definitely required to secure the safety and environment of the park and surrounding areas.

36.1 km²

management area
(as of 2009)

Our solution

SUEZ NWS has been providing hazardous waste incineration treatment services in SCIP since 2006. Currently it has three incineration lines with annual treatment capacity of 120,000 tons, which can treat the industrial waste of 24 categories and 310 types on the national list of hazardous waste. It also provides packaging, transportation, analysis and other services. This project is Asia's largest hazardous waste incineration facility.

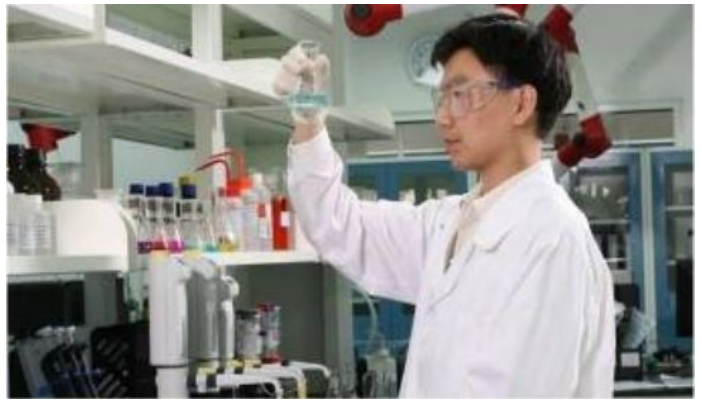


The facility is equipped with energy recovery devices. The heat generated by incineration is used to produce steam and supply to industrial companies in the park, reducing the consumption of fossil fuels, saving 55,000 tons of standard coal each year, maximizing the recycling of waste energy. It is also equipped with off-gas treatment system (removal of halogen, sulfur, heavy metals, dust) to strictly comply with the EU emission standard.

Both the air emission and energy recovery systems align with the principles of the circular economy, reducing pollutants and saving energy.

In 2017, SCIP Waste R&D Center was established to develop innovative solutions for treating and recovering hazardous waste. It is exploring several focuses of research, including waste-to-energy recovery technology, process optimization and industrial standardization. The R&D platform

is also helping the group strengthen its cooperation with Shanghai Jiaotong University and Tongji University in waste technology innovation.



The results

SUEZ NWS has been providing hazardous waste incineration treatment services in SCIP since 2006.

- We have completed the construction of three incineration lines and put them into operation smoothly. The annual capacity of hazardous waste treatment has reached 120,000 tons, which is the largest incinerator in Asia with effective protection of the chemical industry park and Shanghai's environment and industrial safety operation;
- The emission **100% complies with strict EU standards** and is monitored online by Shanghai Environmental Protection Bureau 24 hours a day;
- The energy recovery system, ensures the energy recycling in hazardous waste, saving 55,000 tons of standard coal per year;
- The company obtained the certifications of CNAS, ISO9001, ISO14001, ISO 17025, etc.

24 categories
310 types

of industrial waste can be
treated

120,000
tons/year

treatment capacity

55,000
tons/year

standard coal saved

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