

Burn out kiln for South Korea

Since the end of 2019, a company in South Korea uses sonUtec's "Amunstat A" burn-out kiln for the disposal of loose explosives (such as TNT, propellants, RDX). sonUtec delivered, installed, and commissioned the whole system including the off-gas treatment.



The explosives are portioned in pans and fed to the kiln via a conveyor system. Inside the kiln, the combustion of the explosives is ignited by a gas burner.

The reaction behaviour of the substances is affected by the chemical composition, size, geometry, and age. Ignition behaviour, combustion time, and exhaust gas volume per time unit vary greatly. Extensive tests were conducted to adapt the kiln operation mode to the product and to determine the maximum permissible feed quantities per batch.

The off-gas treatment system is located downstream of the burn-out kiln. It has been designed in accordance with the European Directive 2010/75/EC. The pollutants are removed from the off gas in several separation stages.

- Thermal post-combustion (combustion of TOC, CO, Dioxins and soot)
- Selective catalytic reduction (reduction of NO_x on a catalyst with addition of NH₃ to N₂)
- Filter (separation of dust and acidic gases by addition of additive powder)

Before the clean gas is released into the free atmosphere, the emission of the pollutants NO_x, SO_x, HCl, TOC and dust is continuously monitored.

During the construction phase at the Korean site, the sonUtec team was able to experience a foreign culture and the Asian mentality and enjoy the Korean cuisine.



Sonneberg, Oktober 2020

sonUtec GmbH
Sonneberger Umwelttechnik
Mittlere-Motsch-Straße 26
96515 Sonneberg

Phone (+49) 03675 / 4253-0
Fax (+49) 03675 / 4253-20
e-mail: info@sonutec.net
www.sonutec.net
Page 1

AG Jena HRB 305248
Managing Director:
Jürgen Scheler