

Service for Contaminated Sites and Industry

- + THERMAL TREATMENT
- + ENVIRONMENTAL REMEDIATION
- + WASTE MANAGEMENT
- + WASTE STORAGE AND TREATMENT

*“Earth” is a synonym for both
our planet and our soil.*





We have been a leading partner for projects in the field of brownfield remediation and dangerous waste disposal for over 20 years. Since becoming an independent company, we have focussed our activities in Europe.

We have been operating a thermal soil treatment facility with a rotary kiln in Deutzen since 1994 to treat contaminated soil, oil mud and mineral waste.

Our technology is ISO 9001, 14001 and 18001 certified and we have the relevant permissions according to German Pollution Control Laws. This means we are allowed to treat soil, rubble and other mineralic based waste-streams contaminated with Hg, Hydrocarbons, BTEX, Phenols, PAH, PCDD/PCDF, Nitro Toluene, Cyanide, HCH and PCB, as well as a variety of other chlorinated hydrocarbon compounds.

We also take on demanding projects related to materials flow management and cleaning up contaminated sites.

Technical Data

OPERATOR

ARE Deutzen GmbH

FOUNDATION

1993

LOCATION

Deutzen near Leipzig

DISPOSER NUMBER

SL1601090

RANGE OF SERVICES

- + Thermal treatment
- + Environmental remediation
- + Waste management
- + Waste storage and treatment

RECEPTION OF CONTAMINATED MATERIAL

- ▶ Thermal treatment: 120 000 tons p. a.
- ▶ Waste storage: 80 000 tons p. a.
- ▶ Special storage for intense odour waste: 50 000 tons p. a.
- ▶ Total capacity: 200 000 tons p. a.

Thermal Treatment Plant Deutzen

THERMAL TREATMENT

Contaminated soil, demolition waste and other types of waste are treated in a rotary kiln after being pre-treated mechanically and screened. Thermal desorption takes place in a rotating drum under low oxygen conditions. After being treated at a temperature of 450–560 °C for a minimum period of 20 minutes, the pollutants are either destroyed or evaporated into a vapour.

In the first stage of the process, dust is coarsely extracted using gravitational forces in a cyclonic extractor and then fine dust extraction follows in a bag filter. The vapours produced by the thermal process are then directed to the post-combustion stage. Any pollutants remaining in the vapour are destroyed at this point by temperatures of >860 °C.

The following gas scrubbing process ensures that acid gases are removed and neutralised and fine particles and volatile metals are isolated at the same time. Cooling the vapours quickly means De novo synthesis of the pollutants is avoided.

Finally, the vapours pass through a carbon filter (control filter) to remove any mercury and then go up a chimney into the atmosphere.

WASTE STORAGE

The soil treatment facility in Deutzen has temporary storage facilities for up to 80 000 tons, of which there are two storage areas of 30 000 and 20 000 tons for odour-intensive waste. This storage with special ground sealing can be found in "Halle I".

The storage facilities are self-contained and have their own extraction, air treatment and odour neutralising facilities. Loading and removal takes place using a gate system.

The waste approved for treatment is also approved for intermediate storage, for the purpose of disposal in third-party Installations.

WASTE STREAM MANAGEMENT

Efficiency, technology and legal frameworks are of equal importance to us. As part of our waste stream management, we offer safe, lawful and harmless disposal in our own facilities or those of our partners.

Regardless of its origin, e.g. soil, excavated materials, construction waste or process residues such as slag, ash, blasting grid, dust or industrial waste water.

We take care of obtaining the necessary legal regulations on waste, we organise the transport to intermediate storage, treatment or disposal. Of course with all the waste law relevant requirements and documentations, because safety and reliability is a big matter for us.

We will gladly take on the following tasks for you:

- + Identification of the most appropriate disposal method
- + Obtaining necessary permissions
- + Transport logistics (incl. gas-tight containers)
- + Treatment (biological / thermal / physic-chemical) of waste, depending on the contamination
- + Temporary storage of waste
- + Removal (processing and/or disposal)

CERTIFICATION

ARE Deutzen GmbH is a certified waste management company according to § 52 of the Recycling and Waste Management Law. Our brokerage authorisation according to § 50 of the Recycling and Waste Management Law allows us to act as the notifier of waste movement in Germany, Europe and internationally.



Acceptance Criteria

Thermal Desorption Plant Deutzen

Parameter	Amount / Unit
Hydrocarbons	250 000 ppm
PAH (EPA)	20 000 ppm
PCB (Ballschmitter)	2 000 ppm
EOX	15 000 ppm
Cyanide _{total}	5 000 ppm
Chlorine	10 000 ppm
Sulphur	10 000 ppm
Arsenic	200 ppm
Lead	20 000 ppm
Cadmium	80 ppm
Chrom _{total}	10 000 ppm
Copper	20 000 ppm
Nickel	20 000 ppm
Mercury	150 ppm
Thallium	30 ppm
Zinc	40 000 ppm
PCDD/PCDF (only in case of suspicion)	0.1 ppm TEQ NATO
TNT (only in case of suspicion)	10 000 ppm
Sum of explosive-connections (only in case of suspicion)	60 000 ppm
AOX (halogen organic connections/analysis by total Cl)	10 000 ppm
AOS (organic Sulphur/analysis by total S)	10 000 ppm



Approved Waste Code Numbers

Thermal Treatment Plant with Waste Storage

		010505*	010506*			010507	040219*
		040220	050109*	050110	050115*	060502*	060503
070108*	070110*	070111*	070112	070211*	070212	070311	070312
070411*	070412	070511*	070512	070611*	070612	070711*	070712
100101	100102	100103	100117	100120*	100121	100208	
	100213*	100214	100329*	100330	100905*	100906	100907*
100908	100913*	100914	101005*	101006	101007*	101008	
101010	101119*	101120	101306	120114*	120115	120116*	
120117	130501*	130503*	130508*	161103*	161104	161105*	
161106	170101	170102	170103	170106*	170107	170301*	
	170302	170303*	170503*	170504	170505*	170506	
170507*	170508	170801*	170802	170901*	170902*	170903*	
170904	190203	190204*	190205*	190206	190304*	190305	
190306*	190307	190802	190807*	190813*			
190814	191101*	191105*	191106	191211*			
191212	191301*	191302	191303*	191304			
		191305*	191306	200303			
			200306				



ARE Deutzen GmbH
Fabrikstr. 7
04575 Neukieritzsch
Germany

Bonn Office

Telephone +49 3433 27 19 0
Telefax +49 3433 27 19 60
E-Mail info@are-deutzen.de

Telephone +49 228 201 30 14
Telefax +49 228 201 30 30

www.are-deutzen.de/en/



14001



18001



9001



Efb