



Focus WASTE MANAGEMENT

# Hazardous Waste Solutions



Environmental Concepts Exchange Association e.V.

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## REFERENCES

- ▶ of complete redevelopment measures
- ▶ for disposal and logistic concepts

# Aim of E.C.E.X.A. company compound

- ▶ Application of available patents
- ▶ Evolution and effort to improve processes for the stabilization and/or immobilization of contaminated sludges with different particular conditioning materials
- ▶ Carrying of complete redevelopment measures of contaminated sites
- ▶ Evolution and effort to improve different processes for treatment and decontamination of contaminated minerals

# Our emphasis and activities

- ▶ Operation of a biological ground treatment plant in Lower Austria near Vienna by using the Biosan-Method
- ▶ Operation of an immobilization plant in Manchester/England by using the Soilfix-Method
- ▶ Operation of different treatment plants in England, Austria and Italy
- ▶ Operation of a mobile soil washing plant
- ▶ Preparation of concepts for processing of mineral and contaminated materials
- ▶ Preparation of disposal concepts and logistics concepts



# Biosan method



- ▶ Use of ground inherent microorganism
- ▶ Redevelopment in openly stored piles is possible
- ▶ Redevelopment time depends on the height of pollution
- ▶ Recyclable part conducts almost 100 %





# Mobile Soil Washing Plant



- ▶ Pollutants always attached at the biggest surface => Detachement of the refining granule part
- ▶ Recycable part depended on grain structure up to 95 %





# Mobile Soil Washing Plant



- In mobile or fixed plants possible
- Process in a known manner from preparation engineering



# Soilfix method



- ▶ Integration of elutable pollutants into a firm matrix
- ▶ Destination is the attitude and compliance with the dump boundary values



- ▶ Possible additives: cement, ashes
- ▶ Use of several wastes is possible







# Mercury disposal



ECEXA is offering the A-Z disposal service of mercury contaminated hazardous waste from the gold mining sector.





# Pesticide waste disposal



Proper disposal of pesticide waste





# Military hazardous waste

Disposal service for a few thousand tons of military hazardous waste.



Photo: getty images

From various military camps approx. 80 different hazardous waste types were packed, notified, consolidated and shipped to Europa via the border - for a final and safe disposal under Basel Convention regulations.

The founding team of ECEXA were the first ever exporters using the NOC (non-objective certificate) on this route.



# Complete service package for hazardous waste exports



ECEXA offers a complete service package for hazardous waste exports compliant to the Basel Convention regulations

– worldwide and tailored to your waste management challenge.



Photo: Digital Vision



**BASEL CONVENTION**





# Oil Sludge Remediation

Flexible Systems due to high variation of pit properties, various types of contaminants and differing pit sizes.

Based on our experience we offer an accelerated bioremediation process for sludge and solids and mechanical separation techniques for liquids.

Safe dispose of hazardous sludge







# PCB Oil Recycling



Disposal service for Electrical Equipment containing PCB oil.

ECEXA provides a **modular, flexible and independent unit.**



Polychlorinated biphenyls (PCBs) are a particular waste type because it does not cause an immediate visible danger compared with other wastes with a high danger degree.



# PCB Oil Recycling

## Innovative, modular, independent solution

- ▶ Plant for dismantling and decontamination of electrical equipment containing PCB oil.
- ▶ Plant for PCB oil disposal.
- ▶ Mobile unit for indirect thermal desorption.
- ▶ Plant for disposal of PCB containing industrial waters.
- ▶ Mobile unit for chemical de-chlorination of PCB oils from high voltage transformers.



# References

of complete redevelopment  
measures  
of contaminated sites

- ▶ England
- ▶ Austria
- ▶ Italy
- ▶ Sweden
- ▶ Germany for example

Meerbusch (a former location of metal industry)

Kalenborn (a former location of the tar production)

Markt Mömbris (a former location of metal industry)





# References

for disposal and logistics concepts

## Domestic refuse from Naples

One of the ECEXA partners transferred in a joint venture from August 2008 to February 2009 about 68,000 tons of domestic refuse from Naples to a correct disposal in Germany.



# References

for disposal and logistics concepts



## Domestic refuse from Naples

In this project, 5.447 containers were distributed by two receiving terminals to these 8 combustion plants.



# References

for disposal and logistics concepts

## Domestic refuse from Naples

The containers were delivered both in whole trains (all containers for a combustion plant) and in mixed trains (container for several combustion plants).



# References

for disposal and logistics concepts

## Harbor sludge from La Spezia

The ECEXA set up in 2007 concept for the disposal of 30,000 tons of untreated harbor sludges from La Spezia (Italy). Under this concept in 2008 approx. 10,000 tons of these sludges were deposited in Germany.





# References

for disposal and logistics concepts

## Harbor sludge from La Spezia

The sludges were packed in big bags by principal and shipped in the port of La Spezia. Each ship laded approx. 2,000 Big Bags



# References

for disposal and logistics concepts

## Harbor sludge from La Spezia

At the target port, the big bags were loaded onto Trucks and spent to the landfill



# References

for disposal and logistics concepts

## Harbor sludge from La Spezia

At the landfill the big bags where separated and fed to a thermal treatment.







# Special Waste Solutions

E.C.E.X.A. SUSTAINABLE SOLUTIONS



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