T2C_

ENERGY RECOVERY

THERMAL CONVERSION COMPOUND INDUSTRIEPARK HÖCHST GMBH

TERMS OF ACCEPTANCE FOR THE DISPOSAL OF SEWAGE SLUDGE IN THE WASTE-TO-ENERGY PLANT (WTE PLANT/EVA)

>> Conditions of acceptance.

Waste acceptance requires a confirmed waste recovery and disposal record as defined in the German Regulation on Waste Recovery and Disposal Records *[NachweisV]* or the EU Waste Shipment Regulation.

Waste will only be accepted if it is listed in the annex to the EfbV certificate. Waste types that are unlisted or flagged as exceptions in the certificate require regulatory approval. <u>EfbV certificate</u>

The drivers employed by the transporter must speak enough German and in all other regards be able to follow the instructions given by plant personnel.

The following terms of acceptance apply solely to sewage and other sludge.

>> Terms of acceptance: waste types

Sludges

- The shipments must not contain any impurities larger than 50 mm. Impurities are items made from the following materials:
 - Glass, ceramic and stone
 - Metal parts (especially aluminum and iron)
 - Cloth, foil, film and wooden parts
 - Clumps, ragger wires or pulper ropes
- Homogeneous, uniform mixtures
- Sludges must not emit excessively unpleasant odors.
- No solvents. LEL < 10 %
- Free of substances that can be expected to react with water.
- No unbound liquid content in the waste shipment.
- DM content > 20%, dewatered to spadable condition (nearly solid consistency)
- No dust produced during unloading

>> Terms of acceptance: constituents

Parameter	Unit	Max. limit	Average
Sulfur (S)	M-% DM	1.3 (*)	0.8
Fluorine (F)	M-% DM	0.2	0.02
Chlorine, total (Cl)	M-% DM	1.3 (*)	1
Chlorine, organic (Cl, org.)	M-% OM ¹	1.3	
Chloride (Cl ⁻)	M-% DM	1.3	
Cadmium (Cd)	mg/kg DM ²	20	10
Mercury (Hg)	mg/kg DM	2	1
Thallium (TI)	mg/kg DM	3	1
Antimony (Sb)	mg/kg DM	80	25
Arsenic (As)	mg/kg DM	15	5
Lead (Pb)	mg/kg DM	500	150
Cobalt (Co)	mg/kg DM	25	6
Chromium (Cr)	mg/kg DM	250	70
Copper (Cu)	mg/kg DM	1000	350
Nickel (Ni)	mg/kg DM	200	80
Selenium (Se)	mg/kg DM	10	3
Tellurium (Te)	mg/kg DM	10	3
Zinc (Zn)	mg/kg DM	1,500	250
Tin (Sn)	mg/kg DM	150	30
Σ (As, Hg, Tl)	mg/kg DM	1,000	
Σ (As, Pb, Cd, Cr, Co, Cu, Ni, Hg, Se, Tl, Zn, Sn)	mg/kg DM	2,500	
Water-soluble Na+K	mg/kg DM	10,000	5,000
PCB total ³	mg/kg DM	5	
PCP ⁴	mg/kg DM	5	
Chlorobenzenes ⁴	mg/kg DM	5	

Footnotes:

*The parties may agree to higher chlorine and sulfur values depending on the plant's operating permit and the technical and financial justifiability for the WTE plant.

¹ M-% OM means the mass percent of the original/wet matter

² mg/kg DM is the weight in the dry matter

³ Determination of PCB content by adding together the concentration of the congeners 28, 52, 101, 138, 153, 180 as per DIN 38414-20; Rev. 1996

⁴ The determination of chlorobenzene and PCP content will be required on a case-by-case basis depending on the origin of the waste

 The waste generator must perform its own analyses and submit the results to T2C. Analyses are required after delivering 1,000 Mg of waste, or once every quarter, whichever is less frequent.

>> Bunker exclusion list:

- Waste classified as very toxic, toxic, highly flammable, flammable or oxidizing
- Self-igniting, explosive substances and ammunition waste
- Combustible gases, chemical and biological warfare agents
- Asbestos-containing substances and peroxides

>> Transportation, vehicle and driver requirements

- The WTE plant premises is governed by the <u>plant regulations</u> as they may change from time to time
- Transport vehicles must be low-noise, energy-efficient and comply with the UVV accident prevention regulations for vehicles.
- Vehicles must meet the Euro 5b emission standard or better.
- Transport containers must not contain any lining which may become loose during offloading and be dumped with the waste (e.g. plastic film). Transport containers must be checked for foreign objects before being loaded. There is a risk that the previous load may freeze onto the transport container, especially in winter, be retained in the transport container and then be dumped with the shipment.
- All waste shipments must be covered with a tarpaulin. Transport containers must be covered with a tarpaulin to prevent possible odor nuisance. The cargo area must be re-covered with the tarpaulin after unloading.
- Vehicles and transport containers must be constructed in such a way to avoid contaminating the traffic routes and to prevent solid or liquid leaks.
- Shipments must be delivered in tipper semi-trailers or walking floor vehicles. It is not possible to unload skips
- Vehicles that use double-wing doors to close off their cargo areas cannot be used due to the conditions at the site.
- Unloading must be completed within 45 minutes, including the emptying of residues and clean-up, to allow us to keep the logistics processes running smoothly.
- Drivers must have the personal protection equipment (PPE) required at the WTE plant. Drivers must voluntarily wear work clothing and PPE at all times while in the tipping hall.

- PPE includes:

Safety shoes (DIN EN 345, S3), hard hat (DIN EN 397, DIN EN 14 052), high-visibility vest (DIN EN 471), safety glasses (DIN EN 166), respirator (DIN EN 149, FFP3), buttoned-up work clothing (long trousers, long- or short-sleeved shirt) and rubber boots (DIN EN 345, S5) if needed

^A Condition imposed in the T2C operating permit

>> WTE plant delivery times and contact

Waste acceptance requires prior scheduling in the WTE plant's VuES/SDS system.

- The driver must present the VuES/SDS scheduling sheet for the shipment before inbound weighing at the scale.
- Trucks can access the plant premises through the Southwest Gate (Tor Süd-West) on Otto-Horn-Straße. Building H318 is the unloading point for the facility.

Delivery times

- Monday to Friday from 6:00 am to 4:00 pm (last entry)
- Different times by prior agreement

Contact / Quantity Planning and Quality Assurance

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