



Sustainable Ship Recycling by Adopting Integrated Waste Management Approaches in China

EU Ship Recycling Regulation and Waste Management

1st stakeholder workshop

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EU-CHINA ENVIRONMENTAL
SUSTAINABILITY PROGRAMME



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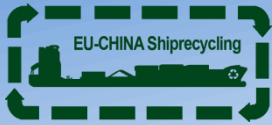


Waste Management in the EU Ship Recycling Regulation

Close link between the EU Ship Recycling Regulation and the EU Waste Framework Directive (Directive 2008/98/EC), as the same definitions are used for:

- **‘waste’**,
- **‘hazardous waste’**,
- **‘treatment’**
- **‘waste management’**

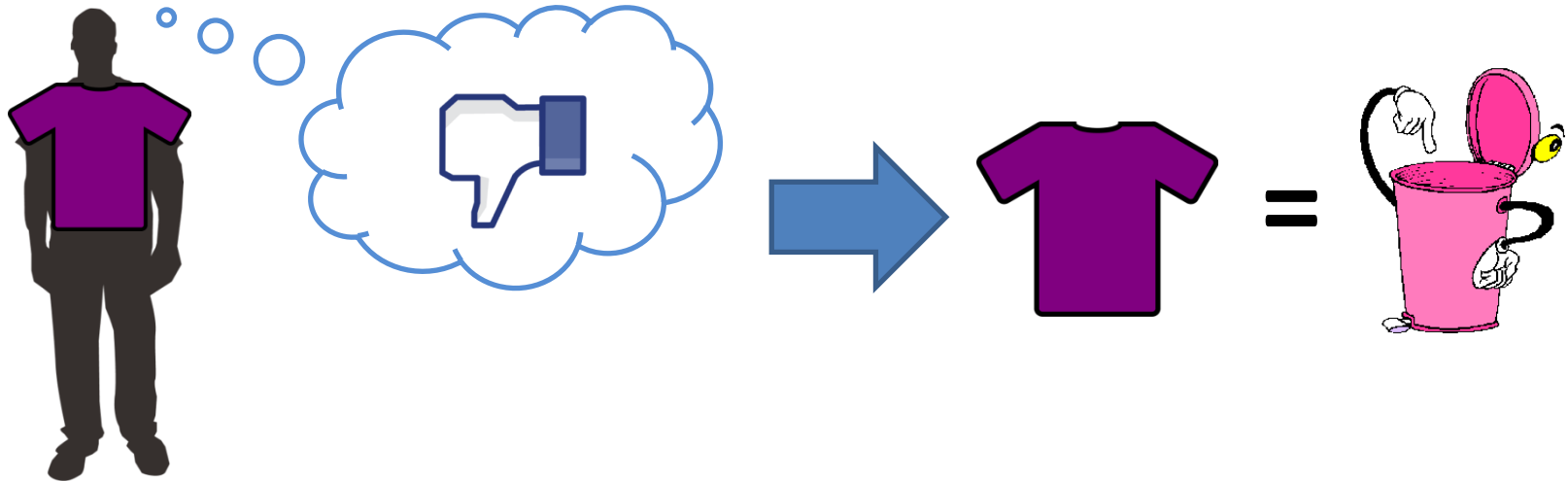




Definitions in the EU Waste Framework Directive

Waste

= any substance or object which the holder discards or intends or is required to discard;





End of waste criteria

Under certain circumstances, waste can cease to be waste.

Example: Iron and steel scrap can become a product if:

- There is an existing market;
- The quality standards required by the market are fulfilled;
- The amount of foreign materials (non-ferrous metals, non-metallic materials) is lower than 2 %;
- The metal scrap does not have hazardous properties.

Also, the waste generator has to implement a Quality Management System and record amounts and fate of the material kept.





Definitions in the EU Waste Framework Directive

Hazardous waste

= waste which displays one or more of the hazardous properties - e.g. explosive, toxic, ...;



(c) Knut Berlin





Definitions in the EU Waste Framework Directive

Treatment

- = recovery or disposal operations, including preparation prior to recovery or disposal;
- ‘**recovery**’ e.g. oil re-refining, solvent regeneration
 - ‘**disposal**’ e.g. incineration, landfilling

Waste management

= collection, transport, recovery and disposal of waste.





Waste Management in the EU Ship Recycling Regulation





Ship recycling plan

The ship recycling plan shall include information on ...

... **type and amount of hazardous materials and of waste to be generated by the recycling of the specific ship**, including the materials and the waste identified in the inventory of hazardous materials, and

... **how they will be managed and stored in the ship recycling facility as well as in subsequent facilities;**



(EU SRR, Article 7(2)(d))





Requirements necessary for SRF to be included in the EU List

The ship recycling facility ensures **safe and environmentally sound management and storage of hazardous materials and waste**, including that

- **all waste** generated from the ship recycling activity **and their quantities are documented** and
- are **only transferred to waste management facilities**, including waste recycling facilities, **authorised to deal with their treatment without endangering human health and in an environmentally sound manner;**

(EU SRR, Article 13 (g))





Ship recycling facilities located in a third country

The ship recycling company shall **for each hazardous material specify:**

- **which waste management process will be applied** (within or outside the ship recycling facility),
- **the name and address of the waste treatment facility, and**
- **provide evidence that the applied process will be carried out without endangering human health and in an environmentally sound manner;**

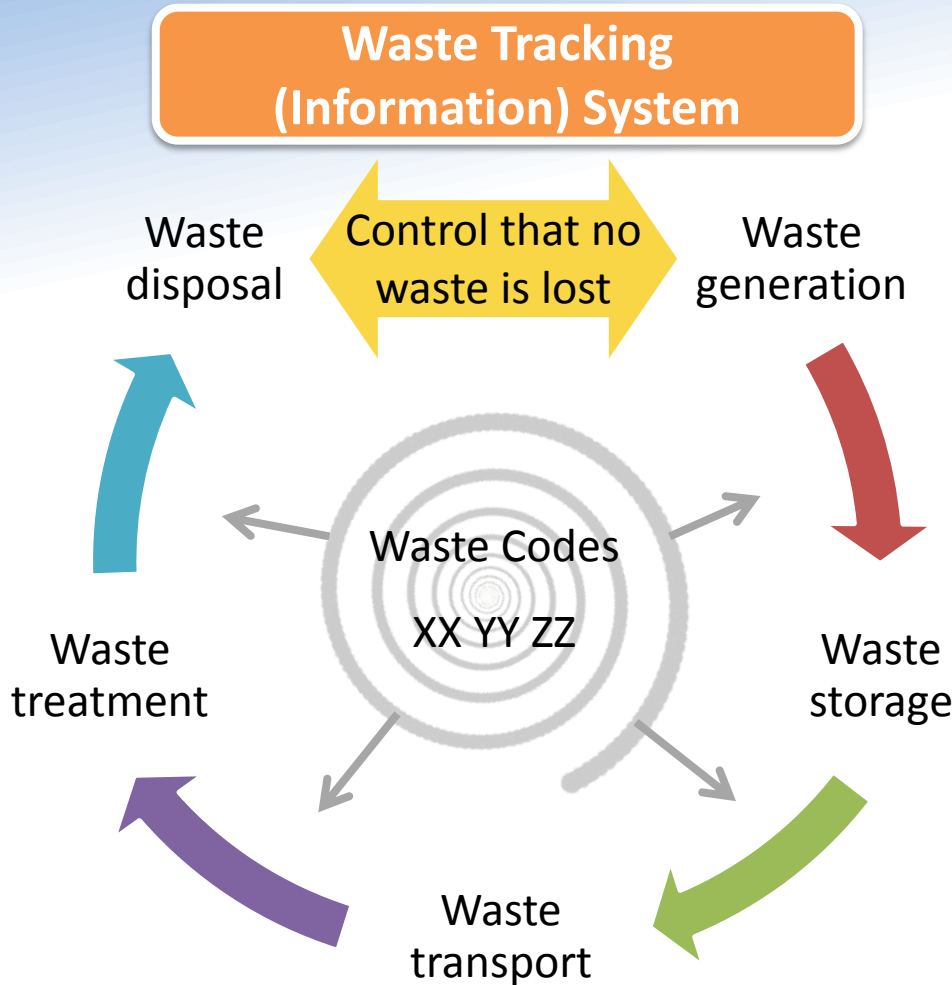


(EU SRR, Article 15)





Waste documentation



Guide to successful waste documentation as required by the EU SRR

- Separation of the wastes as early as possible
 - Assignment of correct waste codes to the single waste types
- Waste tracking from waste generation to final disposal possible





Experience from Austria

Beginning of '90s: New law on waste management

- Main aspects:
 - minimization of harmful effects to humans and the environment,
 - protection of natural resources,
 - obligation to treat wastes in a way they pose no risk to future generations;
- Implementation of strict regulations concerning hazardous waste management in companies;
- Introduction of obligatory waste documentation.





Responsibilities of companies that generate waste

- Obligation to collect wastes separately and to conduct tests if the waste classification is unclear;
- Prohibition to mix different wastes;
- Obligation to document electronically for each year:
 - type (using specific waste codes),
 - amount,
 - origin and
 - fate of the wastes;
- Obligation to collect, store and treat wastes in designated areas / at authorized facilities.





Success factor 1: Waste management concept

Facilities that generate waste and have more than 20 employees have to prepare a waste management concept that has to include:

1. Information on the industrial sector, purpose of the facility and a list of all plant sections;
2. Process-related description of the facility;
3. Waste management related description of the facility;
4. Organisational provisions concerning the compliance with waste management regulations;
5. Estimation of the future development;

The responsible authority can demand an improvement of the concept.





Success factor 2: Waste management officer

Facilities with more than 100 employees have to appoint a qualified waste management officer and report this immediately to the responsible authority.

Duty of the waste management officer

1. Control of the compliance to the relevant waste management regulations and reporting of any deficits to the facility owner;
2. Organisation of the implementation of the relevant waste management regulations in the facility;
3. Advising of the facility owner in all questions related to waste management;
4. Illustration of the costs for waste treatment and revenues from the sale of recyclables for the preparation of the waste management concept.

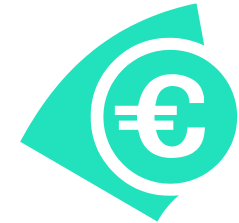
The waste management officer has to be granted sufficient time to attend professional trainings (conducted by authorized institutions).





Success factor 3: Penalty provisions

- Companies that do not comply with the regulations on waste management have – at least – to pay a fine.
- If the non-compliance concerns the collection, separation, storage, transport and treatment of **hazardous waste**, companies can lose the operational permit for their facility.





Thank you for your attention!

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Disclaimer

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