# Splitting of factory into smaller units

## Splitting factory into smaller units and determining the danger potential

# Splitting of factory into smaller units

## Definition:

**Plants** are independent and stationary units or stationary process units, in which substances harmful to water are handled. The plants consists all other components like containers, pipelines and space necessary for the normal operation of a factory.

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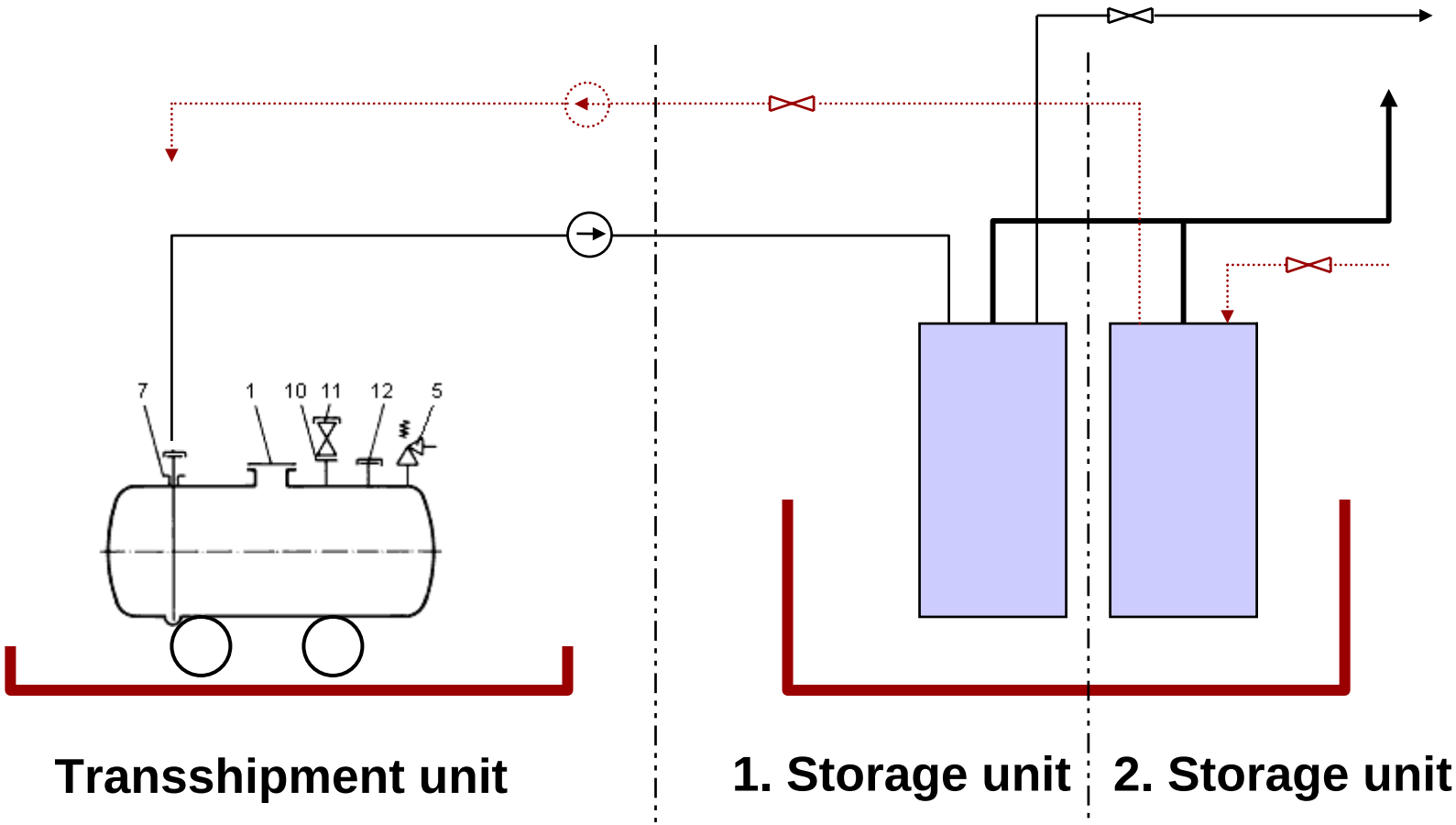
**The following principles are to be considered when dividing a factory into smaller units:**

- **Division according to the function of each unit (S, F, L, MTU)**
- **The operational goal is a decisive factor on how the plant is divided**
- **Several containers located close to each other but attached to different filling systems and MTU-Units are considered as belonging to a different plant**
- **The fact that containers are installed in a joint secondary containment does not automatically make them belong to the same plant**

# Splitting of factory into smaller units

## Examples:



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**Examples:**

## Definition of water-polluting substances in the sense of the ICPR recommendations for the prevention of accident and plant safety

Water-polluting substances in the sense of the ICPR recommendations are substances that have at least one of the following characteristics in compliance with EC Directive 67/548/EEC:

**(T+)** very toxic
**(T)** toxic
**(C)** corrosive
**(Xn)** harmful to health
**(N)** endangering the environment
or **(R 52)** harmful to water organisms
or **(R 53)** can have harmful effects in aquatic environments in the long term

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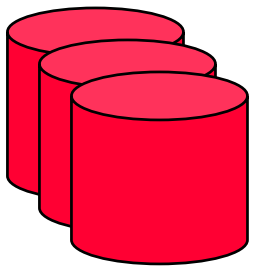
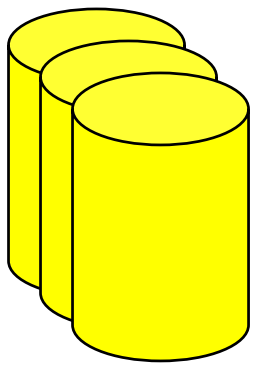
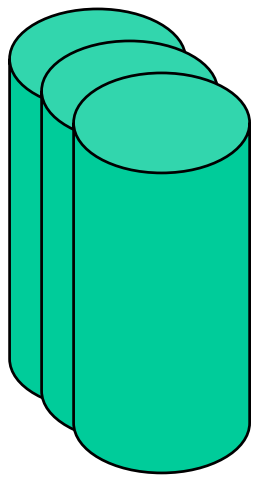
**The catalogue of water-polluting substances (Federal Environmental Agency Berlin, UBA) can be consulted as a supplement to this:**

**WRC 1: Water Hazard Class 1 – low hazard to water**
**e.g. HCl**
**WRC 2: Water Hazard Class 2 – hazard to water**
**e.g. Diesel**
**WRC 3: Water Hazard Class 3 – severe hazard to water**
**e.g. Petrol (Gasoline)**

**This catalogue can be accessed on the Internet at the following address:**
**http:// www.umweltbundesamt.de/wgs/wgs-index.htm**

# Splitting of factory into smaller units

## Which risk proceeds from the plant?

| WRC 3 | WRC 2 | WRC 1 |
|---|---|---|
|  |  |  |
| 50 kg | 700 kg | 1000 kg |

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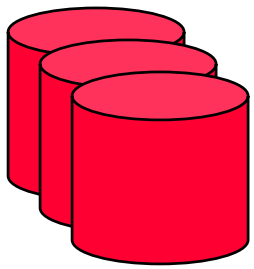
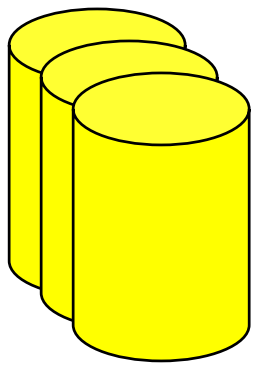
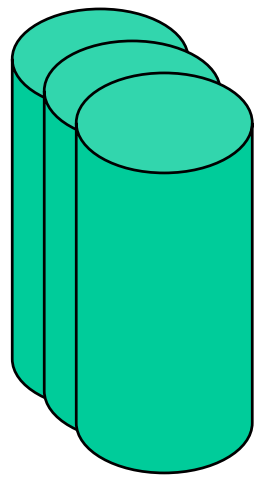
## Which risk proceeds from the plant?

**The equivalent of water risk class 3 ( WRC 3-equivalent) is the sum of the volume of substances hazardous to water in a particular unit based on the water hazard class 3 Einheit.**

**1 ton of WGK 3 substances is at least 10 times more dangerous as 1 ton of WGK 2 substances and at least 100 times more dangerous as 1 ton of WGK 1 substances**

# Splitting of factory into smaller units

## Which risk proceeds from the plant?

| | WRC 3 | WRC 2 | WRC 1 |
|---|---|---|---|
| |  |  |  |
| | 50 kg | 700 kg | 1000 kg |
| WRC 3-equivalent : | 50 kg | 70 kg | 10 kg |

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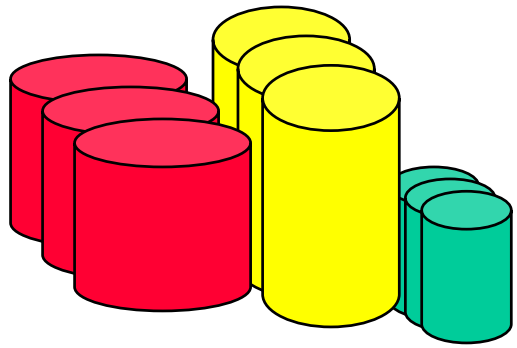
**Which risk proceeds from the plant?**



**130 kg**

**The water risk index (WRI) corresponds to the exponent of base 10 of the WRC 3 equivalent.**

$$WRI = \log (1{,}3 * \mathbf{10}^{\mathbf{2}}) \approx 2$$

**Low risk**