

INTERSOL 2011 Lyon

Safety of Remediation Installations

Liability of technical experts for the safety of remediation installation under the European Machinery Directive

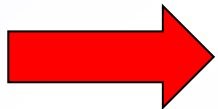
Stefanie Beste
www.hlfp.de

Agenda

- Legal framework for remediation installations
- Machinery Directive 2006/42/EC
- Machinery and assemblies of machinery
- CE-conformity declaration and CE-marking
- Liability of engineers for incompliances with European product safety law

Legal framework for remediation installations

- Environmental law requiring value limits (for groundwater, soil or soil gas) to respect
- Occupational safety law
- Contractual obligations
- Technical requirements regulating safety of installations / safety of equipment



European Machinery Directive 2006/42/EC

Machinery Directive 2006/42/EC

- Applicable since December 29th 2009
- „New approach“ product safety directive
- No specific but very general safety requirements
- Valorisation of harmonized standards
- Responsibility of manufacturer to ensure the compliance of its product with the directive's requirements
- Compliance proven by conformity declaration (CE-declaration) and CE-conformity-mark

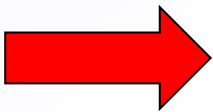
Definition: Machinery

Art. 2 (a) first indent):

„machinery means in general an assembly fitted with or intended to be fitted with a drive system, other than directly applied human or animal effort, consisting of linking parts or components at least one of which moves, and which are joined together for a specific application“

Definition: Machinery - main characteristics -

- several components
- at least one of which moves
- Which are joined together for a specific application
- drive system (mechanical, thermal, electrical, pneumatical, hydraulic)
- drive system = other than directly applied human or animal effort



Many components of remediation installations are machinery (pumps, valves etc.)

Definition: Machinery

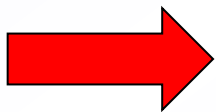
Examples:

	Machinery?
Hand drill:	NO
Push mower	NO
Ball pen:	YES
Pumps:	YES

Safety requirements of Machinery Directive

Before placing on the market or putting into service machinery has to comply with:

- Safety requirements detailed in Annex I of the directive
- Assessment of conformity (may be carried out by the manufacturer himself)
 - Equipment complying with harmonized standards is presumed to be conform
- CE-conformity declaration and CE-conformity mark



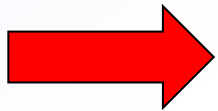
In general, components of a remediation installation comply with these requirements

Remediation installation = assembly of machinery ?

Machinery in terms of the Directive is as well an assembly of machinery:

(Art. 2 (a) fourth indent):

„assemblies of machinery (...) which, in order to achieve the same end, are arranged and controlled so that they function as an integral whole“



Is an additional CE-conformity assessment and CE-declaration required for the remediation installation as a whole?

Assembly of machinery?

- Criteria -

- ① Arranged as an integral whole
- ② Function as an integral whole
- ③ Technically controlled as an integral whole to achieve the same end
- ④ Safety related integral whole of individual components

Assembly of Machinery

① Arrangement:

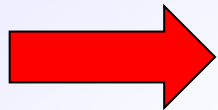
- several machinery and/or
- incomplete machinery
as an integral whole?



Local proximity

Assembly of Machinery

② Function as an integral whole?



remediation installation can consist of an assembly of components to achieve the same end

e.g. remediation of groundwater

Assembly of Machinery

③ Controlled as in integral whole

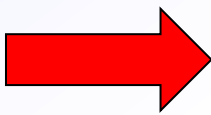
Common or linked steering mechanism

④ Safety-related integral whole

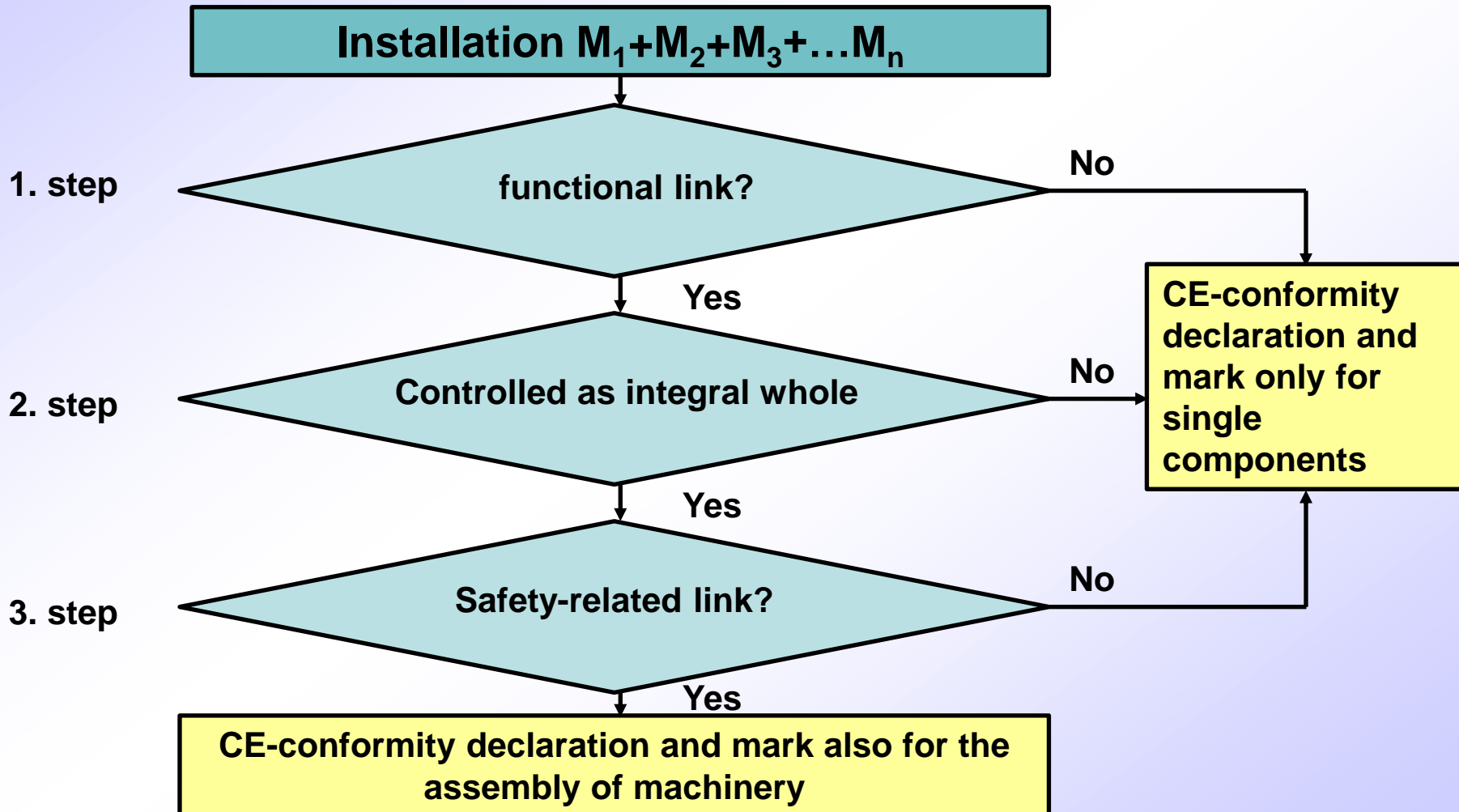
Key question:

May a risk, emanating at one of the linked components, induce a safety risk at other components of the assembly because of the connection, functional link and control-link between the different components of the assembly?

If yes, the assembly of machinery constitutes a safety-related integral whole

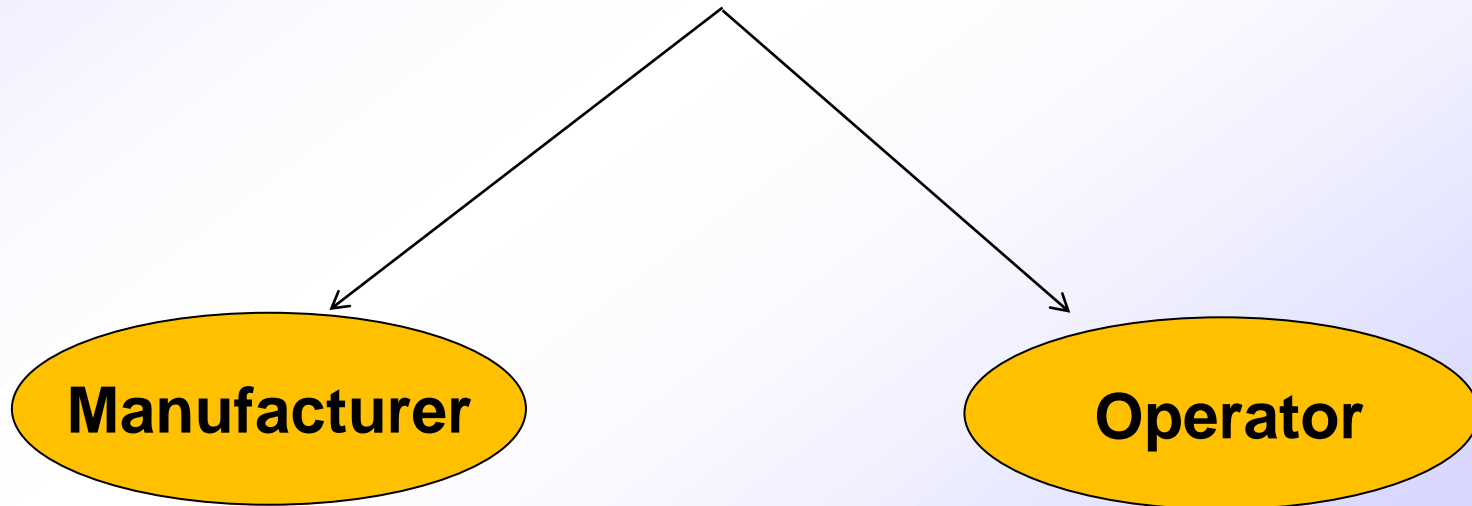
 CE-conformity declaration is necessary for the remediation installation as a whole!

Check-list used in Germany



Liability of Engineers


According to art. 5 of the Machinery Directive the conformity assessment, conformity declaration and the CE-conformity mark have to be carried out by



Liability of Engineers

- **Manufacturer**

Producer or Assembler of the final remediation installation as a whole

 has to provide conformity declaration and CE-conformity mark before placing on the market (handing-over to a third person)

- **Operator**

If no manufacturer detectable, operator is legally assumed to be „manufacturer“

 has to provide conformity declaration and CE-conformity mark before putting into service

Liability of engineers

Machinery Directive 2006/42/EC, Art. 23

- Member States shall lay down the rules and penalties applicable to infringements of the national provisions adopted pursuant to the Machinery Directive
- Penalties provided must be **„effective, proportionate and dissuasive“**

Liability of engineers

Example Germany: implementation in GPSG

- Sales-ban for all products not carrying the CE-conformity mark (=interdiction to be put into service)
- Administrative fine for infringements of the provisions of the Ordinance on Machinery (9. GPSGV) of up to 50.000 EUR per case
- Criminal law: Assumption of at least negligent acting in case the installation causes harm to persons or the environment

Liability of engineers

Contractual liability

- Missing or wrong conformity declaration and CE-conformity mark constitute product defect even if not explicitly agreed upon as they arise from an imperative legal obligation
- The party responsible for the remediation installation (client) may claim damages from the technical expert being in charge for the assembling and operation of the remediation installation

Recommendations

1. **Risk analysis** of the installation as an integral whole
2. **Avoid a safety related-link** between the components of a remediation installations by
 - a. Avoiding that the remediation installation is technically controlled as an integral whole
 - b. Avoiding a safety-related link so that risks emanating at one component may not induce further risks at other parts of the installation



All components remain single machinery without constituting an assembly of machinery

Conclusion

If a safety-related link between the components of a remediation installation cannot be avoided a

- 1. Conformity assessment,**
- 2. CE-conformity declaration and**
- 3. CE-conformity mark**

are legally required pursuant to the Machinery Directive
when

- **placing the installation on the market (handing over to a third person, e.g. the operator)**
or
- **Putting it into service**

Thank you for your attention !