



## Legal requirements for acceptance and control during operation of landfills



**“Information Exchange Event on Landfill of Waste and Waste Prevention“**

**Brussels 14-15 May 2009**



## Decision 2003/33/EC – Acceptance Procedures

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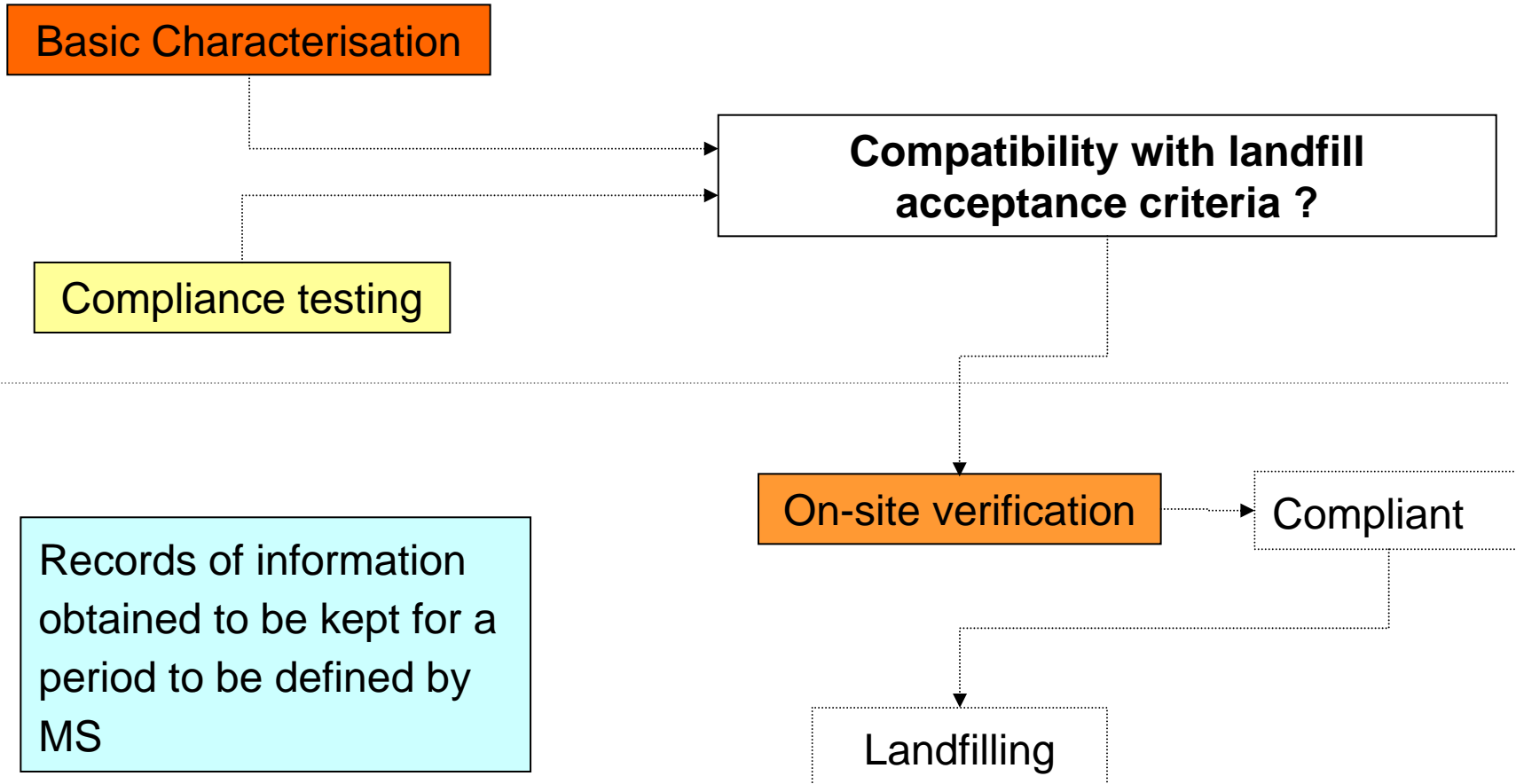
**Waste may only be landfilled if compatible with the standards set for each landfill class!**


- (1) Procedure for the acceptance of waste at landfills
  - (2) Waste acceptance criteria
  - (3) Sampling and test methods

**To be applied since July 2005**



# Principles of Acceptance Procedures

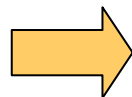




## Acceptance procedure – basic characterisation

### Basic characterisation

1. info on source and origin
2. source process
3. pre-treatment
4. composition
5. leaching behaviour
6. hazard properties
7. appearance
8. EWC,
9. recipient landfill category
10. precautionary measures
11. exclusion check (Art. 5) & of recycling/recovery



- Responsibility of waste producer  
Definition of **key variables**
- Full characterisation of waste;  
required for each type of waste

### Chemical analysis

Compatibility with landfill  
acceptance criteria ?

General rule: testing of leaching  
and composition (if not known)



## Specific provisions for regularly generated wastes

### Wastes that are regularly generated in the same process

- Installation and process are well known
- Input materials and process are well defined
- Single installation or processes well known (e.g. incineration ashes)



After one basic characterisation compliance testing of key variables may be sufficient

Producer has to inform on changes

The basic characterisation should especially contain:  
the **compositional range** for the individual wastes  
the **range and variability for characteristic properties**  
(sufficient number of measurements)



## Specific provisions for wastes not regularly generated

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### Wastes that are not regularly generated

- Not part of a well characterised waste stream
- Waste from bulking, mixing installations
- Mixed waste streams from collectors

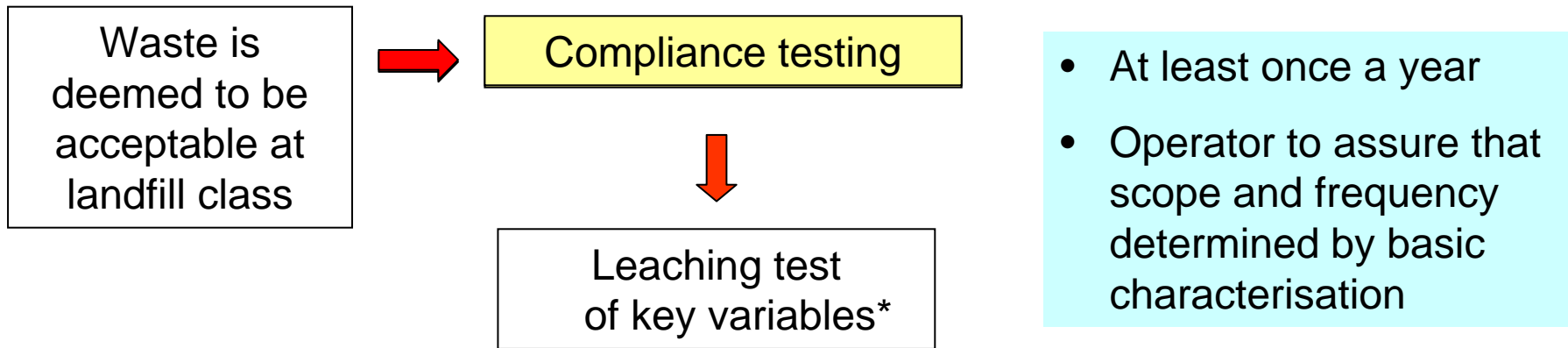


Basic characterisation for each batch of waste



## Acceptance procedure – compliance testing

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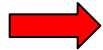
\* = critical parameters as identified during basic characterisation

Tests methods selected from those used for basic characterisation



## Acceptance procedure – on-site verification

For each load delivered to a landfill



### On-site verification

- Visual inspection before and after unloading
- Check of required documents
- Periodic sampling

- Task of landfill operator
- Testing requirements and rapid test methods determined by MS
- Samples to be kept for a period to determine (>1 month)

Waste may be accepted if on-site verification shows that delivered waste is the same as specified in accompanying papers and that has undergone basic characterisation and/or compliance testing



# Acceptance procedure for underground landfills (class D)

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## Site specific safety assessment

- Geological
- Geomechanical
- Hydrogeological
- Geochemical
- Biosphere impact
- Operational phase
- Long-term
- Impact of surface facilities at the site

### Excluded:

- wastes listed in Article 5(3) of the Landfill Directive
- wastes and containers which might react with water or with the host rock and lead to a change in volume or generation of gases
- wastes that are biodegradable or have a pungent smell
- wastes with insufficient stability
- wastes that are auto-flammable or liable to spontaneous combustion
- Etc.



## General exemptions from testing

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### Acceptable without testing:

- a) Waste on one of the specific lists for landfill classes
- b) All necessary information for basic characterisation is fully known and duly justified
- c) Testing is impractical or appropriate testing procedures and acceptance criteria are unavailable



## Exemption from testing for inert waste landfill (class A)

Single waste streams (list) that are assumed to fulfil the criteria including:

Glass (101103, 150107, 170202, 191205, 200102)

Concrete (170101, 170107 selected only)

Bricks (170102, 170107 selected only)

Tiles and ceramics (170103, 170107 selected only)

Soil and stones (17050, 200202 selected only)

- With low contents of other types of materials (like metals, plastic, soil, organics, wood, rubber, etc).
- The origin of the waste must be known & the waste must be a single stream (only one source) of a single waste type.
- Different wastes may be accepted together, provided they are from the same source
- In case of suspicion of contamination (either from visual inspection or from knowledge of the origin of the waste) waste must be tested or refused



## Exemption from testing for non-hazardous waste landfill (class B) - I

- MSW (household, similar to household) that is classified as non-hazardous in EWC (20) & separately collected non-hazardous fractions of household or same material from other origin

These wastes may only be admitted to class B landfills:

- if subjected to prior treatment according to Art. 6
- if not contaminated to an extent which increases the associated risk

This waste may not be disposed together with non-reactive hazardous waste

- Asbestos containing C&D waste and other suitable asbestos waste

if stable & non-reactive, no other hazardous substances, not with biodegradable, separate cell, daily coverage, final topping, “not touched” again





## Additional criteria for inert waste landfill (class A)

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➤ Limit values for total content of organic parameters:

TOC

(can be exceeded in case of soil, provided DOC of 500 mg/kg is achieved at L/S = 10l/kg),

BTEX

(3 fold exceedance possible),

PCB

(3 fold exceedance possible)

mineral oil

(3 fold exceedance possible)

PAHs

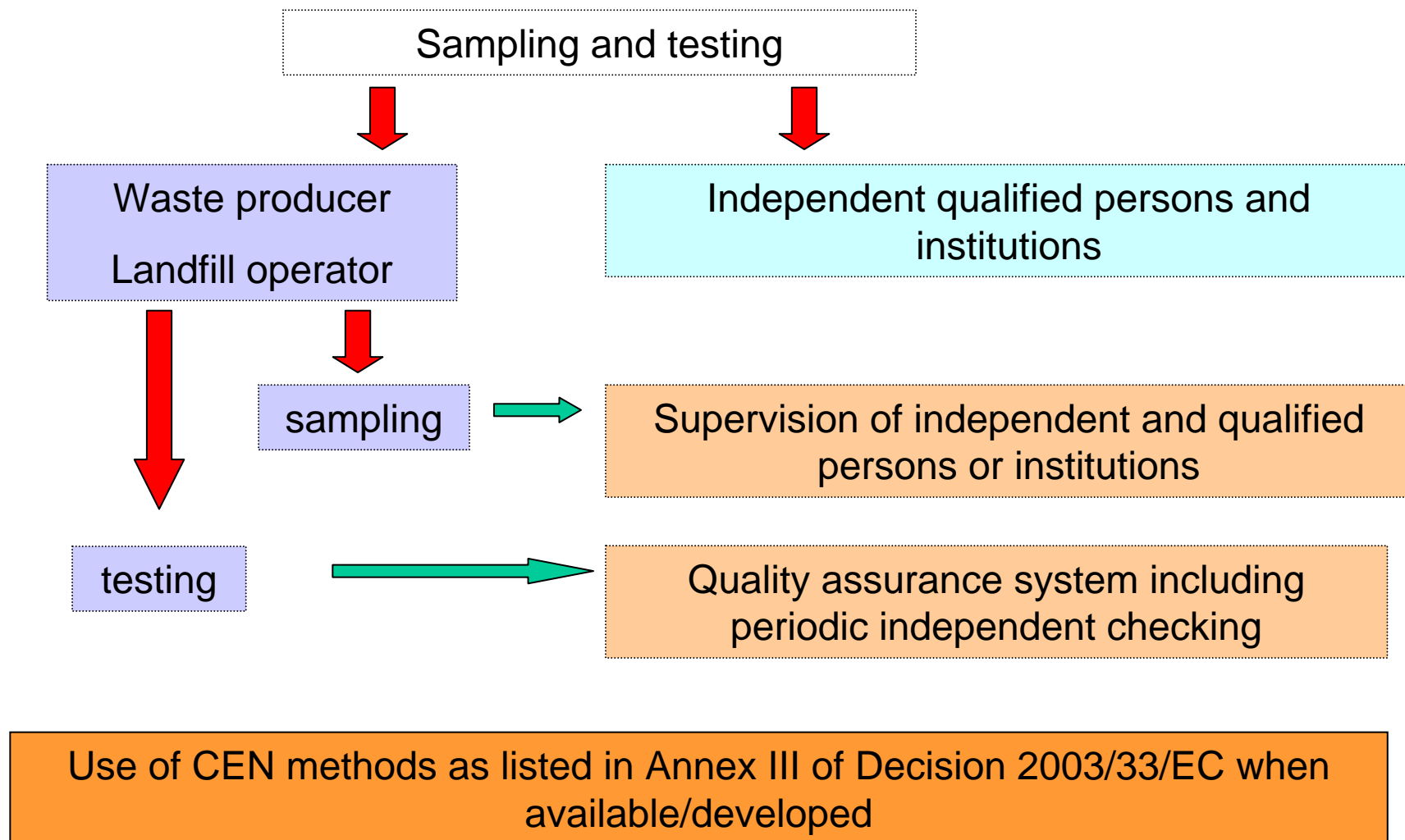
(limit to be defined by MS)







## Decision 2003/33/EC – Sampling and test methods









## Joint actions



- Meetings at local, regional, national level
- TAC meetings
- Participation in IMPEL projects



## **IMPEL Cluster 1 – “Comparison programme for landfill inspection and monitoring”**

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- Achieve consistent level of execution
- Exchange of information, know-how and practical experiences
- Establish informal network of inspectors
- Improve collaboration

Priority objective: Harmonised sampling plans

**Lead country: Austria**

**Project Manager**

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Thank you for your attention