

Attachment D2: Facility Operation

The technology to be used at the site is a combination of 'in-vessel tunnel composting' and 'aerated static piles'.

The term 'in-vessel' refers to a composting system where the waste material is contained and enclosed in a concrete tunnel which is completely sealed. Enclosure means that the composting material is not affected by the external environment (temperature, rainfall etc) so the conditions in the system can be carefully controlled to make the composting process more efficient. Aeration levels can be adjusted to control the temperature of the composting materials, for example, or water can be automatically added if low moisture levels are detected. The process control for the in-vessel system seeks to maintain optimum biodegradation temperature and humidity and the process parameters are constantly recorded and adjusted using a plc (process logic control) control system

The facility falls within the control of the Animal By-Products Regulations (EC) No 1774/2002 and will be required to meet process standards for category 3 and Catering wastes. The facility will not accept category 1 & 2 wastes.

Catering waste and organic fines will be off-loaded directly into the main building, mixed with garden waste and woodchip and placed in the tunnels. Following an initial composting stage in the tunnels, the material will be placed outside in piles located in designated areas. Using a system of underground piping, air is sucked through the compost to provide it with oxygen, which speeds up the process. This stage of the process is referred to as 'aerated static pile' technology.

Some of the pure garden waste and wood waste ('green' wastes) will be composted using the aerated static piles only. The remainder of the waste will be composted using a combination of both the in-vessel system and the aerated static piles.

The air collected from the process is treated in a 'biofilter' to control odour and dust emissions. The biofilter is a concrete bay filled with organic material such as woodchip, peat or compost. The process air is passed through the organic material where micro-organisms decompose the odorous compounds.

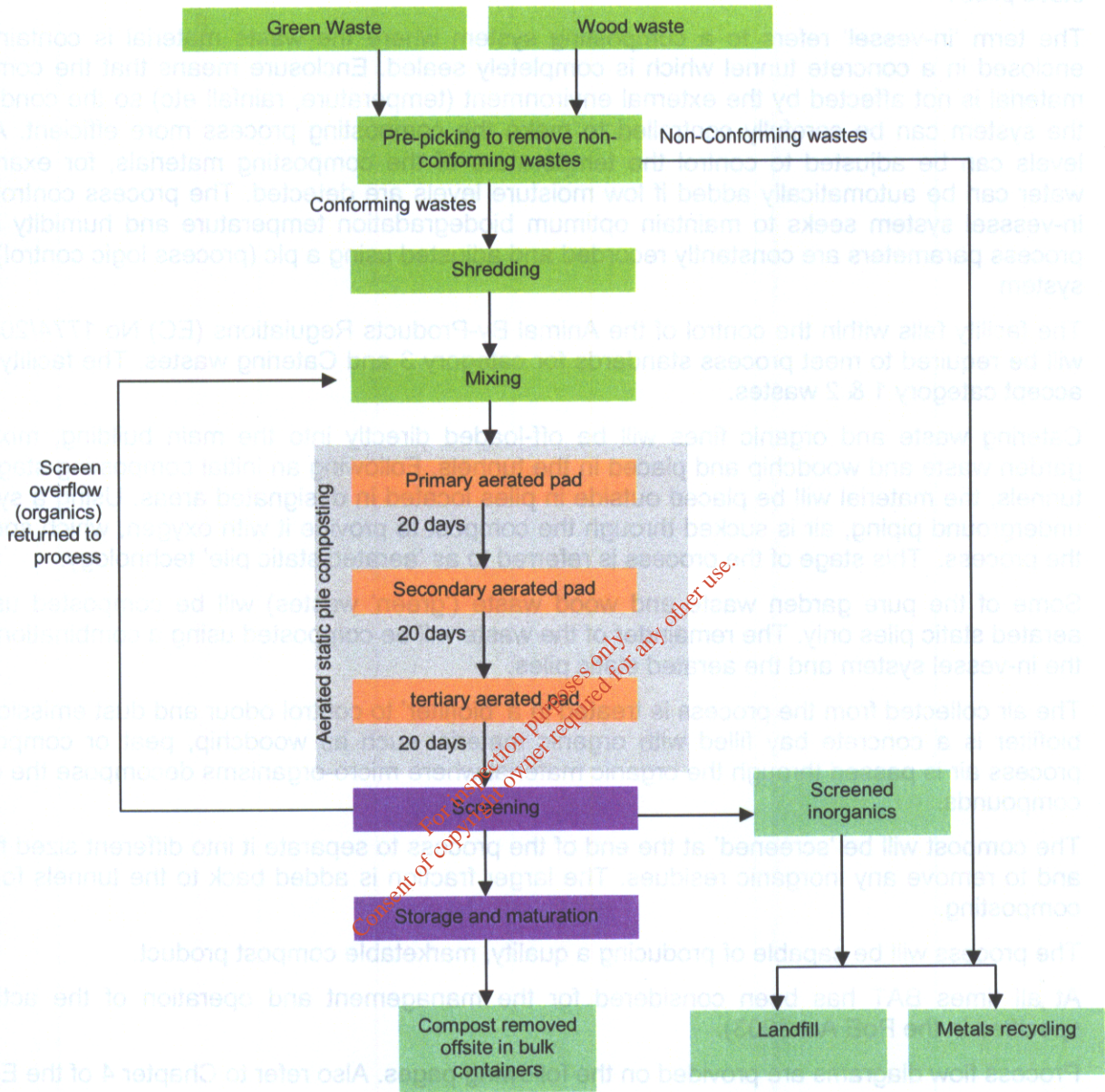
The compost will be 'screened' at the end of the process to separate it into different sized fractions and to remove any inorganic residues. The larger fraction is added back to the tunnels for further composting.

The process will be capable of producing a quality, marketable compost product.

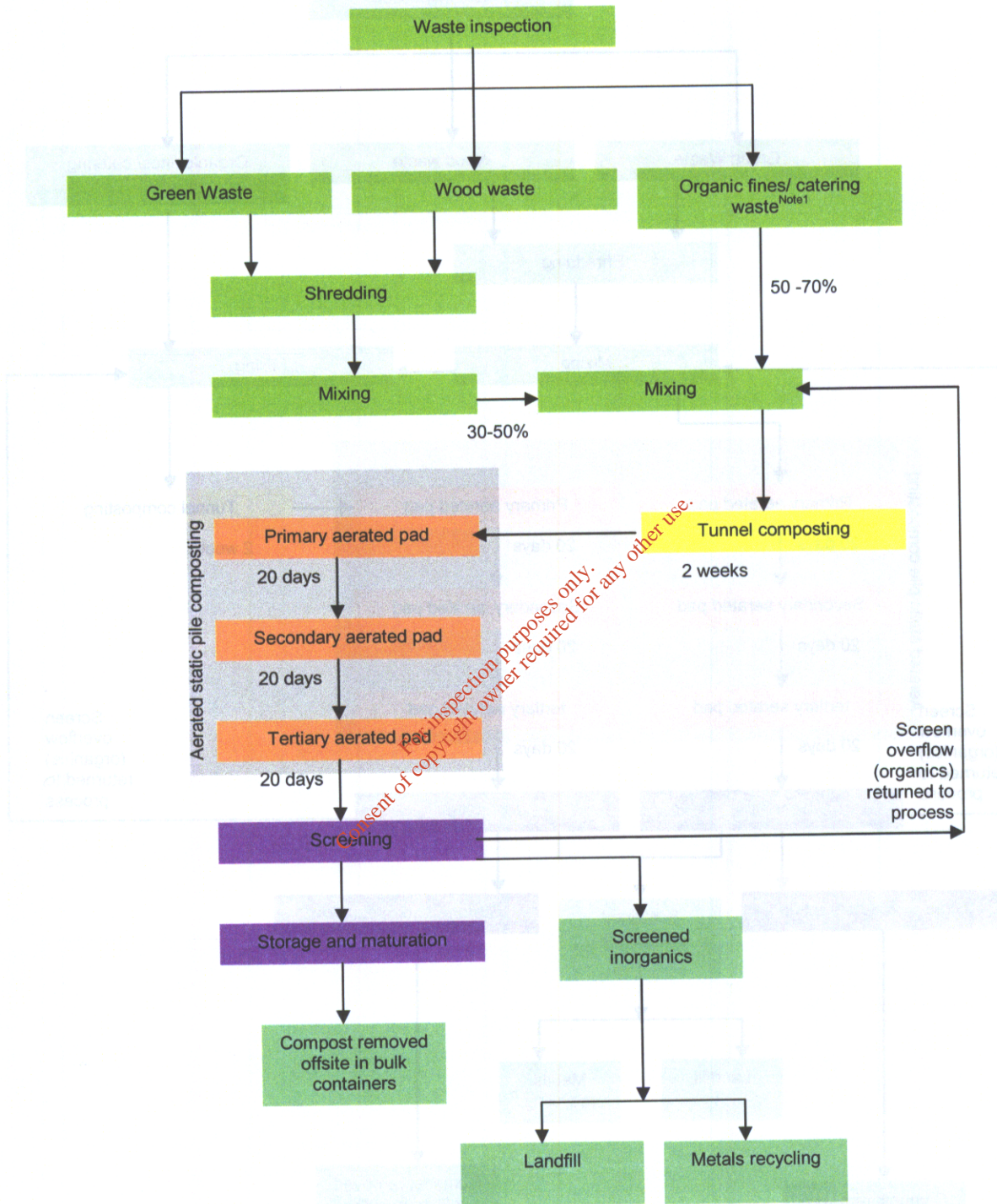
At all times BAT has been considered for the management and operation of the activity (as specified in the PoE Act 2003).

Process flow diagrams are provided on the following pages. Also refer to Chapter 4 of the EIS for a detailed process description.

Process Flow Diagram: Green waste composting (Aerated Static Piles)



Process Flow Diagrams: commercial waste Municipal fines composting (tunnel composting followed by aerated static piles)



Note 1: Catering wastes and organic fines will be kept in separate streams to produce different grades of compost

Process Flow Diagram: Entire facility

