

4.3.3 Heat recovery

The main types of heat recovery systems are described in Section 3.3:

- heat exchangers (see Section 3.3.1)
- heat pumps (see Section 3.3.2).

Heat exchange systems are widely used with good results in many industrial sectors and systems, and are widely used for implementing BAT 5 and 11. Heat pumps are being increasingly used.

The use of 'wasted' or surplus heat may be more sustainable than using primary fuels, even if the energy efficiency in use is lower.

Heat recovery is not applicable where there is no demand that matches the production curve. However, it is being applied in an increasing number of cases, and many of these can be found outside of the installation, see Section 3.4 and Annex 7.10.

Techniques for cooling and the associated BAT are described in the ICS BREF, including techniques for the maintenance of heat exchangers.

19. BAT is to maintain the efficiency of heat exchangers by both:

- a. monitoring the efficiency periodically, and
- b. preventing or removing fouling

See Section 3.3.1.1.