Errata to the text of
Handbook of Biomass Combustion and Co-Firing

Twente University Press, 2002

- Page 110, line 2, should read:

This will help a lot of manufacturers who export their products to many countries.

- Figure 6.12 on page 159 was misprinted. Here is the correct version.

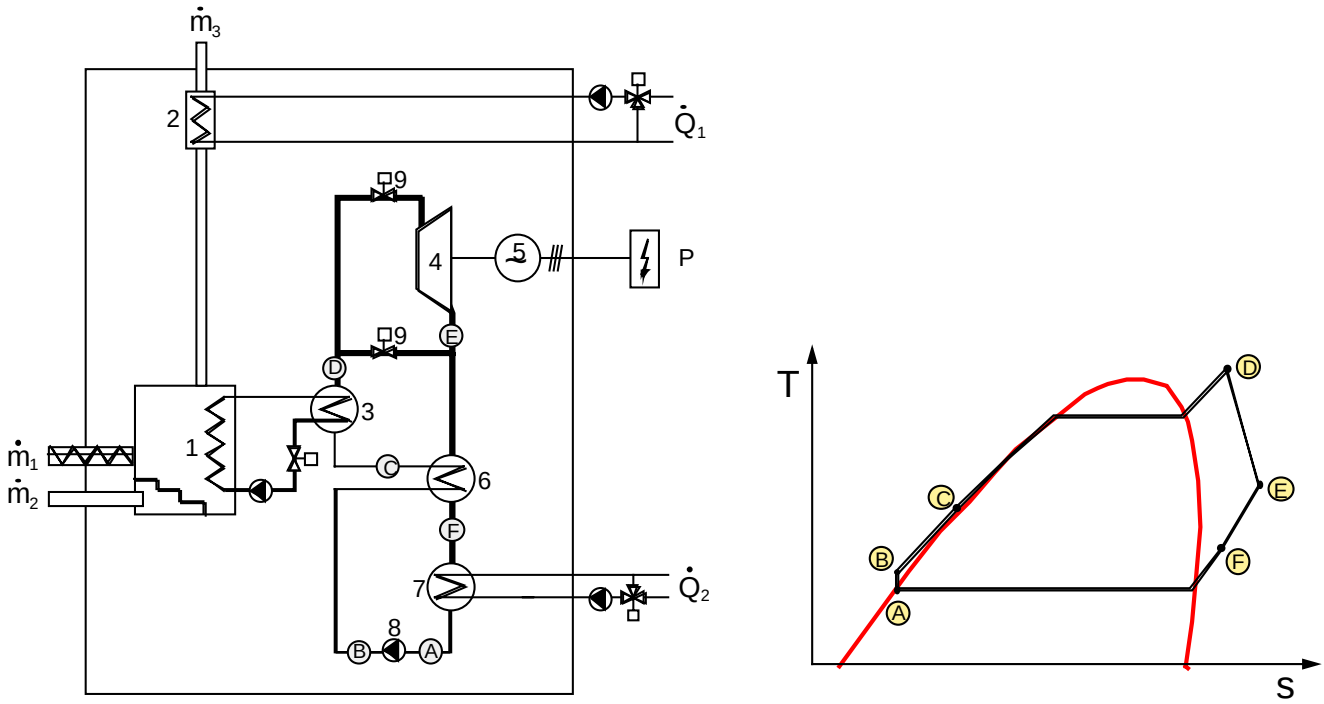

Figure 6.12: *Principle of co-generation with an ORC process (above) and process in the T/s diagram. To increase efficiency, a regenerator can be introduced between turbine and condenser to pre-heat the organic oil (6). Furthermore, an economiser can be used for heat extraction from the flue gases after the thermal oil boiler (2).*
Explanation: m_1: Fuel input, m_2: Air inlet, m_3: Flue gas exit, Q_1 and Q_2: Heat for district heating (depending on heat demand and temperature levels, Q_2 can be used for pre-heating)
P: Electricity output.
1: Wood furnace with thermal oil boiler, 2: Economiser for heat generation, 3: Evaporator for the organic fluid in the organic Rankine cycle, 4:Expansion turbine, 5: Generator, 6: Organic fluid pre-heater, 7: Condenser for heat generation, 8:Feed pump, 9: Control valves.

A – B: Pressure increase of the organic fluid in the feed pump
B – C: Pre-heating of the organic fluid
C – D: Pre-heating, evaporation and superheating in the evaporator
D – E: Expansion in the turbine
E – F: Cooling in the recuperator
F – A: Condensation in the condenser

At the plant in Switzerland, the following results are reached [166] : P_{tot} = 335 kW_e, P_{out} = 300 kW_e, Q2 = 1440 kW_t, Q1 = 460 kW_t. Assuming an efficiency of 80% for thermal oil boiler and economiser, the efficiencies according to fuel input are estimated as 11% electric, 67% thermal and 78% total.

- Table 6.6 on page 166 is clarified below.

Table 6.6: *Typical efficiencies for heating plants, CHP plants, and power plants today and expected values in the future.*

	Today			Future	
	Heating plant	**CHP < 1 MW_e**	**Power plant > 10 MW_e**	**CHP < 1 MW_e**	**Power plant > 10 MW_e**
Technology	Stove, boiler	Steam engine, steam turbine, ORC	Steam turbine	Gasifier and IC-engine, Stirling engine	IGCC
η_h	0.85	0.68	0	0.55	0
η_e	0	0.12	0.25	0.25	0.45
ε	2.5	2.5	2.5	4	4
$\eta_{tot} = \eta_e + \eta_h$	0.85	0.8	0.25	0.8	0.45
$\eta_{ex} = \varepsilon\, \eta_{el} + \eta_{th}$	0.85	0.98	0.63	1.55	1.8

- Figure 7.17 on page 210 was printed incomplete. Here is the correct version.

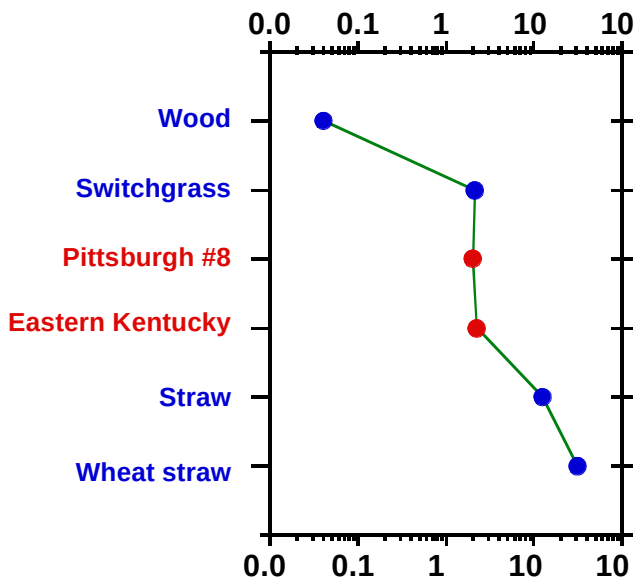

Figure 7.17: *Ash deposition rate for various fuels in g deposit per kg fuel. (Courtesy of Larry Baxter, USA).*

- Figure 8.20 on page 259 was printed incomplete. Here is the correct version.

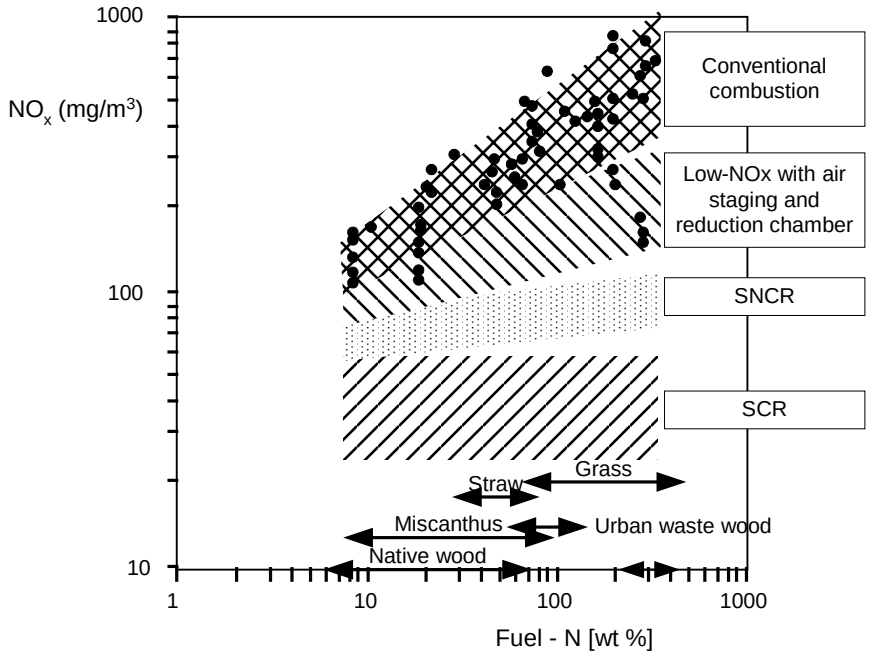

Figure 8.20: *Comparison of NO_X reduction potential for various NO_X reduction measures [230].*