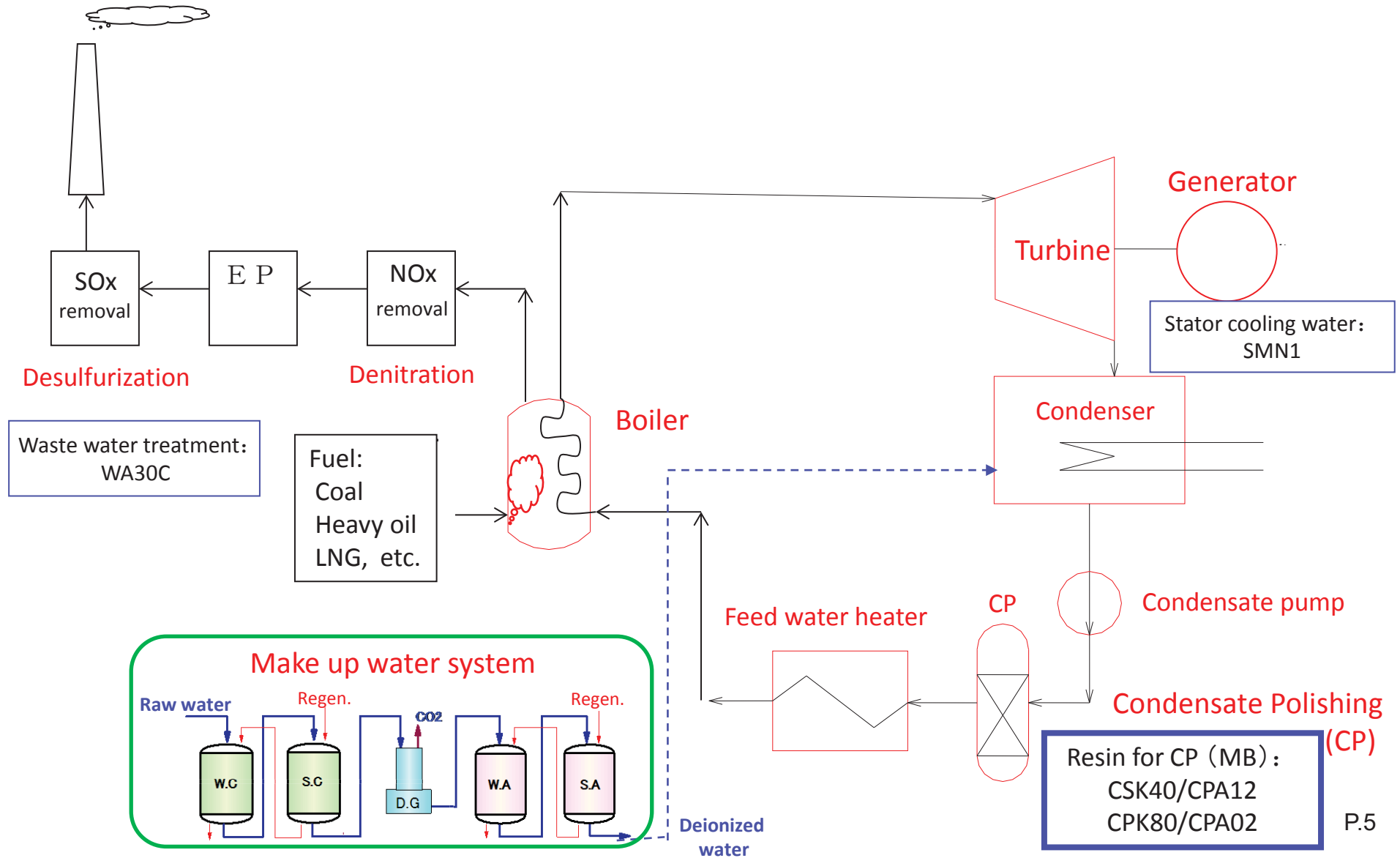


IER for Thermal Power Plants



IER for Condensate Polishing of Thermal Power Plants

Purpose of water quality control of thermal power plants:

- Keep good quality of water and steam, and prevent scale formation and corrosion of materials at boiler, turbine and other equipment.
- Maintain plants in good situation, improve the efficiency of power generation.

Large scale, high steam pressure → requires higher quality of water.

IER for condensate polishing:

Combination of porous type CER and porous type AER are widely selected.

→ Merits: Easy separation of CER/AER, resistant to organic fouling, higher osmotic strength.

Recently, SO_4^{2-} level in water is controlled more strictly

→ Some customers consider using high cross-linkage gel type CER and porous type AER

Ionic form: It depends on customer. Some customers purchase H/OH form resins, because it is easier to control the water quality at operation start-up.

DIAION™ for Condensate Polishing

	Gel type		Porous type	
	Na-form	H-form	CL-form	OH-form
Cation resins	UBK10B	UBK10BH	CPK80	CPK80H
High cross-linkage	CSK40 (UBK14 series)	CSK40H (UBK14 Series)	(PK228L)	(PK228LH)
Anion resins	UBA10A	UBA10AOH	CPA12 (PA312L)	CPA12OH (PA312LOH)

(): Japanese grade name

CER: CSK40 (UBK14):

High cross-linkage (14%) gel type: Oxidation resistance, less leachables

AER: CPA12 (PA312):

Porous type: Resistant to organic fouling, high PSS adsorption capacity

* PSS: Leachables of CER (polystyrene sulfonate) .

PSS could cause organic fouling of AER.