

**Table 1.** TEP manipulated variables.

Variable	Description
XMV (1)	D feed flow (stream 2)
XMV (2)	E feed flow (stream 3)
XMV (3)	A feed flow (stream 1)
XMV (4)	Total feed flow (Stream 4)
XMV (5)	Compressor recycle valve
XMV (6)	Purge valve (stream 9)
XMV (7)	Separator pot liquid flow (stream 10)
XMV (8)	Stripper liquid product flow (stream 11)
XMV (9)	Stripper stream valve
XMV (10)	Reactor cooling water flow
XMV (11)	Condenser Cooling Water flow
XMV (12)	Agitator speed

**Table 2.** TEP process measurements (3 minute sampling interval).

Variable	Description	Units
XMEAS (1)	A feed (stream 1)	kscmh
XMEAS (2)	D feed (stream 2)	kg/h
XMEAS (3)	E feed (stream 3)	kg/h
XMEAS (4)	Total feed (stream 4)	kscmh
XMEAS (5)	Recycle flow (stream 8)	kscmh
XMEAS (6)	Reactor feed rate (stream 6)	kscmh
XMEAS (7)	Reactor pressure	kPa gauge
XMEAS (8)	Reactor level	%
XMEAS (9)	Reactor temperature	°C
XMEAS (10)	Purge rate (stream 9)	Kscmh
XMEAS (11)	Product sep. temperature	°C
XMEAS (12)	Product sep. level	%
XMEAS (13)	Product sep. pressure	kPa gauge
XMEAS (14)	Prod. sep. underflow (stream 10)	m <sup>3</sup> /h
XMEAS (15)	Stripper level	%
XMEAS (16)	Stripper pressure	kPa gauge
XMEAS (17)	Stripper underflow (stream 11)	m <sup>3</sup> /h
XMEAS (18)	Stripper temperature	°C
XMEAS (19)	Stripper steam flow	kg/h
XMEAS (20)	Compressor work	kW
XMEAS (21)	Reactor cooling water outlet temp	°C
XMEAS (22)	Separator cooling water outlet temp	°C