Question 56: How will the recently announced EPA requirement to depressure coke drums to below 2 Psig prior to venting to atmosphere regulations impact your coker operation and design?

John Metka (Foster Wheeler USA Corporation)

Compressors

Crudes

Safety

Operations

In order to meet the potential requirement of less than 2 psig prior to atmospheric venting, new units designed to operate at low coke drum pressure will require additional equipment such as an ejector system discharging to a condenser (potentially the blowdown or fractionator overhead condenser) to adequately reduce the coke drum pressure prior to atmospheric venting. Vent gas compressors utilized in higher pressure coke drum units that route the blowdown vent gas to the Wet Gas Compressor (enclosed blowdown system) will have to reflect the new requirements to ensure that the equipment is designed to be capable of reducing the coke drum pressure to the required level.

Existing low-pressure units may need to be revamped to include an ejector system installed on the coke drums or the Blowdown Settling Drum. Steam requirements, air-cooler condensing capacity and sour water capability will also need to be reviewed. Higher pressure units with vent gas or flare gas compression will require evaluation to determine equipment capability to achieve the lower pressure and subsequent modifications if deemed necessary.

Time taken to depressure the drums will have to be considered while setting total cycle time.

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