



*- catching our future*

# Environmental Control Methods & Normal, Abnormal, and Emergency Operations

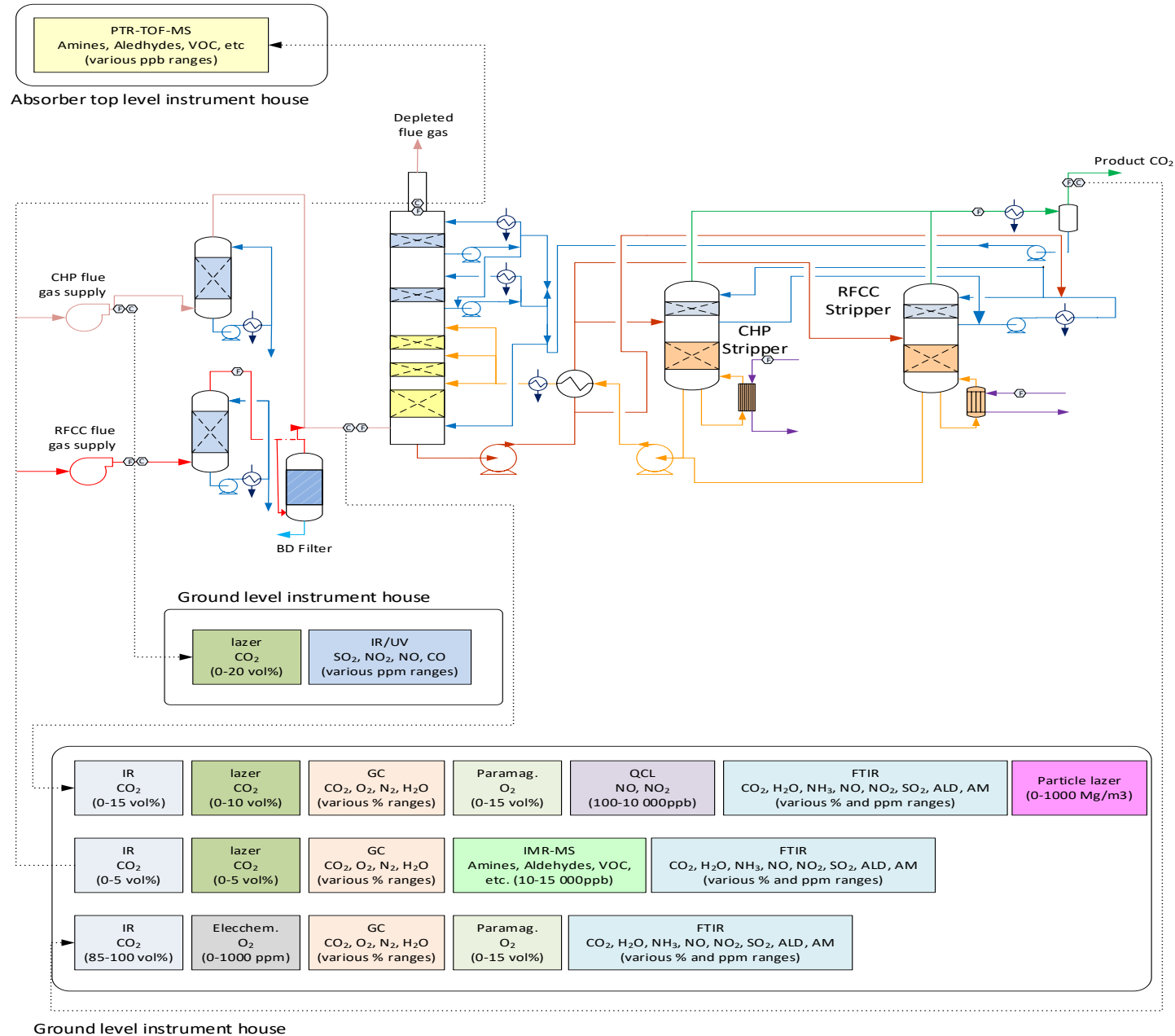
Workshop on Measurement, Monitoring and Controlling Potential Environmental Impacts from the Installation of Point Source Capture

June 8<sup>th</sup> 2023

Rouzbeh Jafari

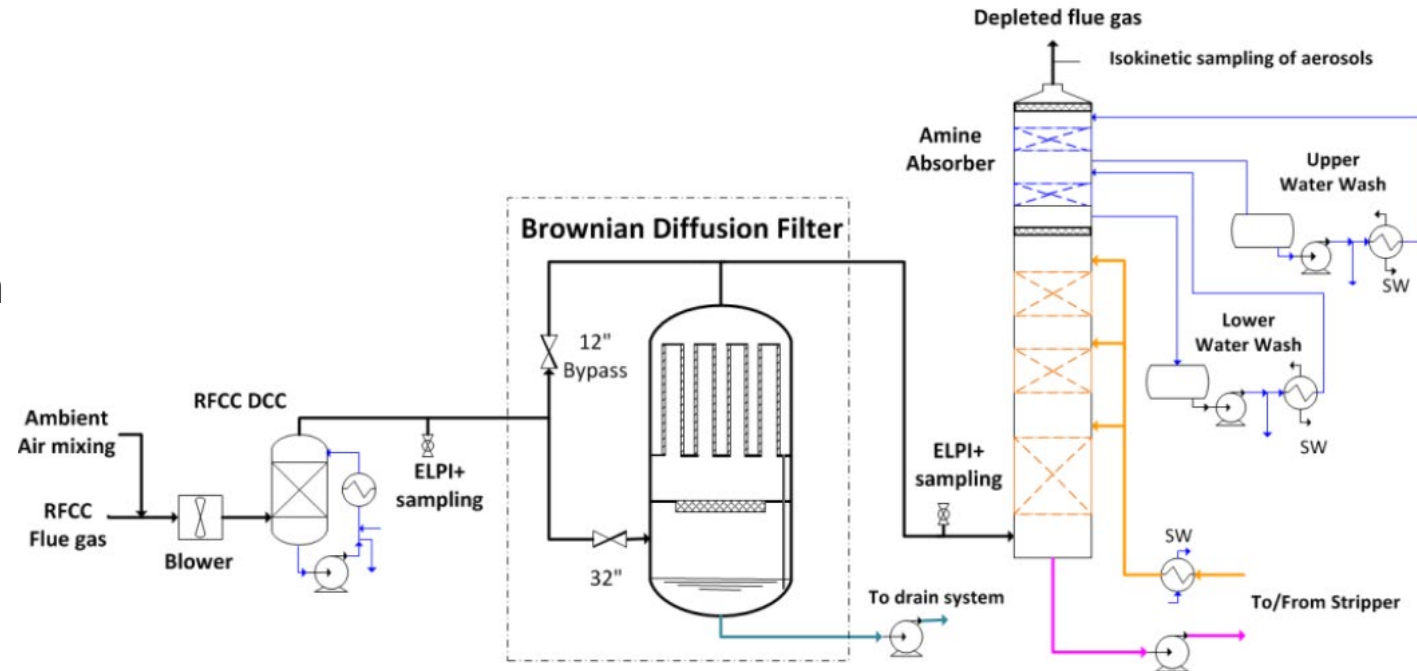


# Amine Plant at TCM



# Amine Plant at TCM - BDU

- The particles are captured by fibers and each particle captured grows by further accumulation until droplets are formed.
- When the weight of the droplets is sufficient, a water film occurs, flowing down to the bottom of the candles.
- The liquid collected downstream the candles is drained to the bottom of the vessel.
- A pump controls the level of the vessel.

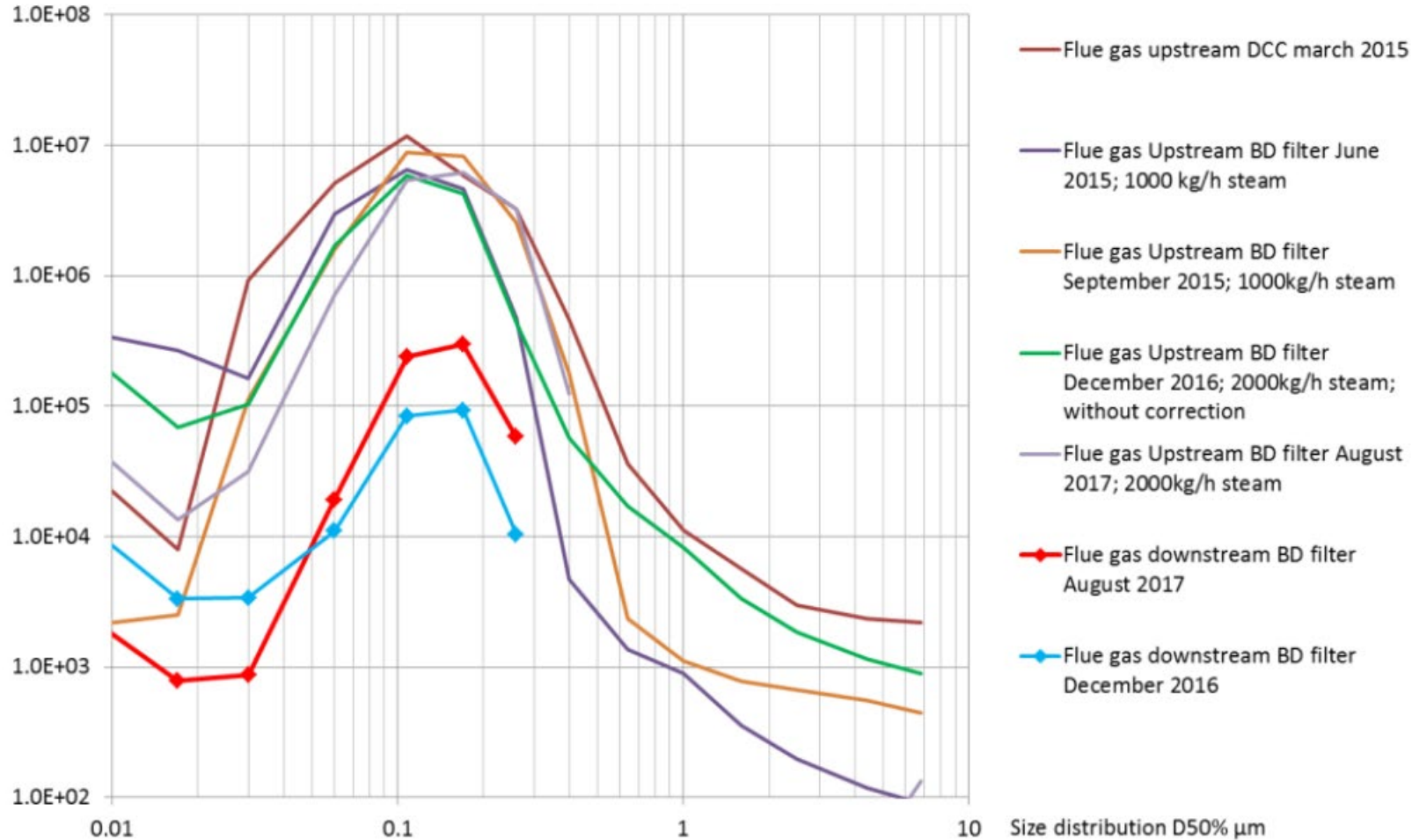


**Installation Pictures. To The Left: Main Support Plate of The Candles. To The Right: The Flue Gas Inlet Is Located at The Bottom of The Vessel**



# BDU Performance

Particle number concentration/cm<sup>3</sup>



Flue gas	MEA emissions (ppmv)
RFCC (wo BDU)	20-100
CCGT	0-0.4
RFCC (w BDU)	1-3

# Acknowledgements



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