



# PM CEMS – REGULATOR'S PERSPECTIVE

Sankar Kannan

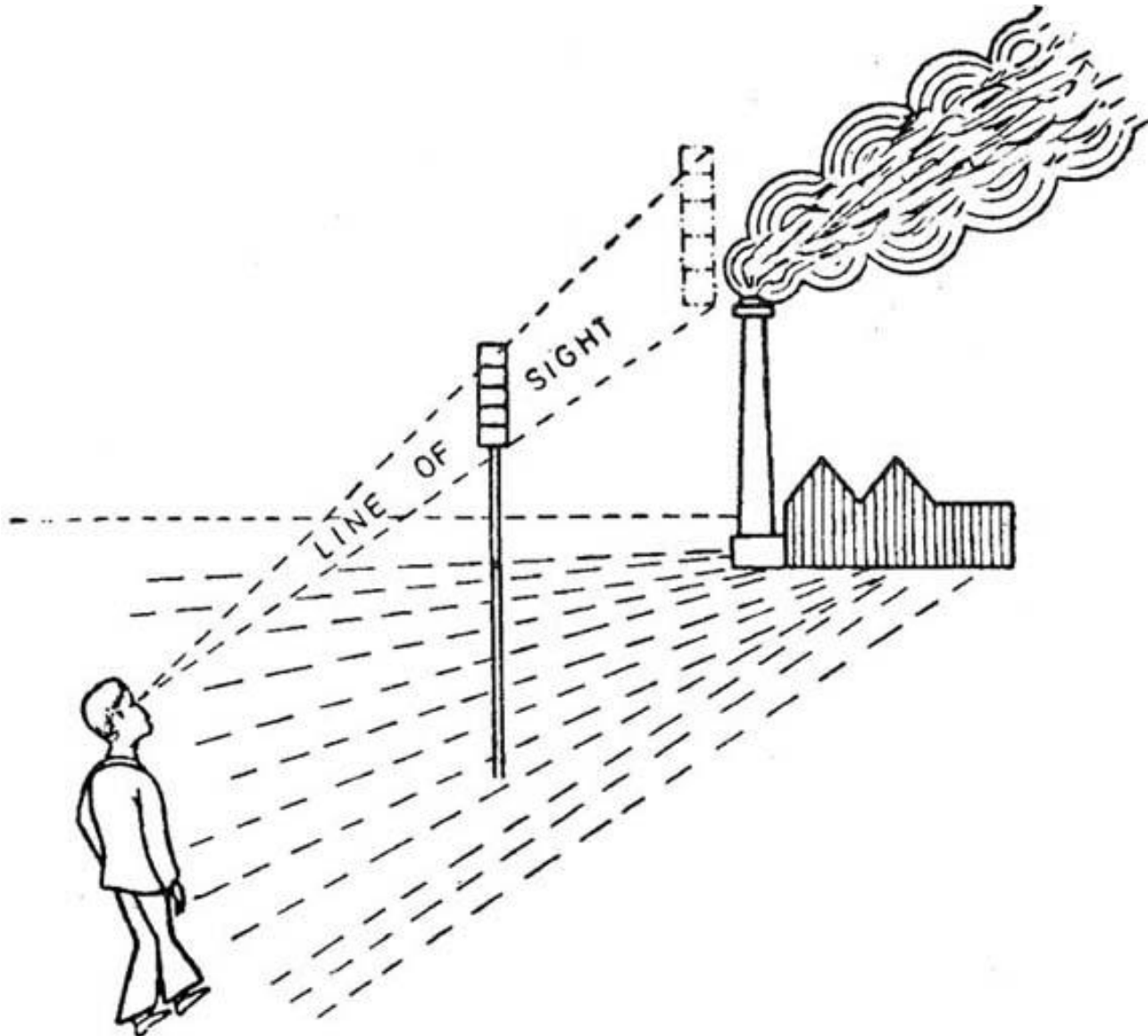
05-07-2017

M.P. Pollution Control Board

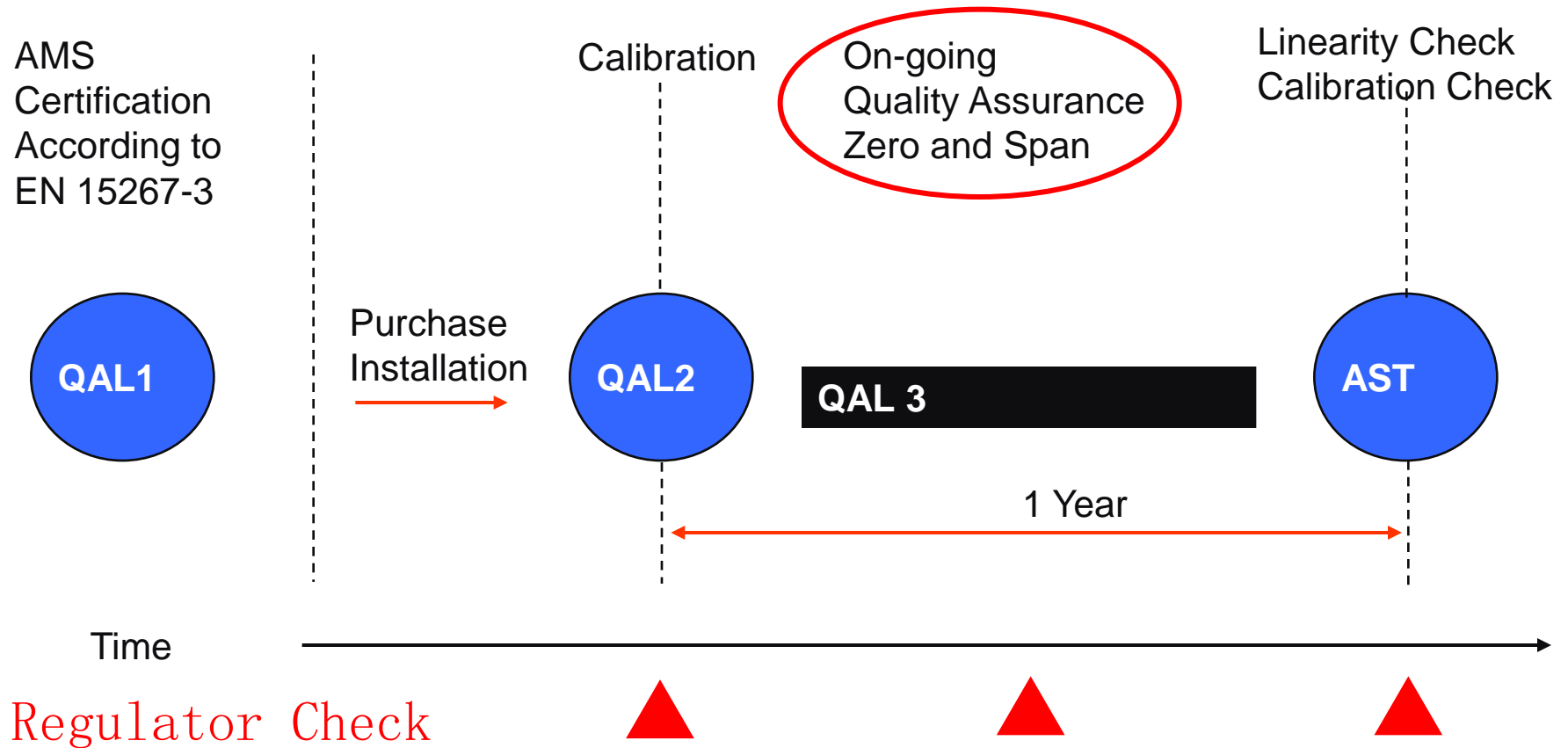
Online Real-time Monitoring Technology



**SICK**  
Sensor Intelligence.



: Overview on the QAL “EN14181” systematic



- Installation Verification
- Periodic Check
- Look for fuel changes
- Look for interruption of data
- Verify for Calibration report availability after repairs

- Dust Monitor Mounting location
- Selection of measuring technology
- Reference method location
- Calibration Data
- Recording of calibration coefficients

## Requirements:

- Distance to the dust monitoring level at least 500 mm above in flow direction
- No mutual influencing of dust meter and calibrating device.



## EN 15267 – Performance criteria and test procedures

### Maintenance intervals

- ▶ The maintenance interval shall be derived from the shortest interval between the requisite maintenance work operations. This also includes **manual** zero and span point checks.
- ▶ The maintenance interval is important for QAL3 according to EN 14181:
  - **It defines the time span between QAL3 readings**

Field test duration  
maintenance interval

Maximum allowable

3 months

1 month

6 months

3 months

12 months

6 months

24 months

12 months

# TRANSMISSIOMETRY AUTOMATIC CONTROL CYCLE

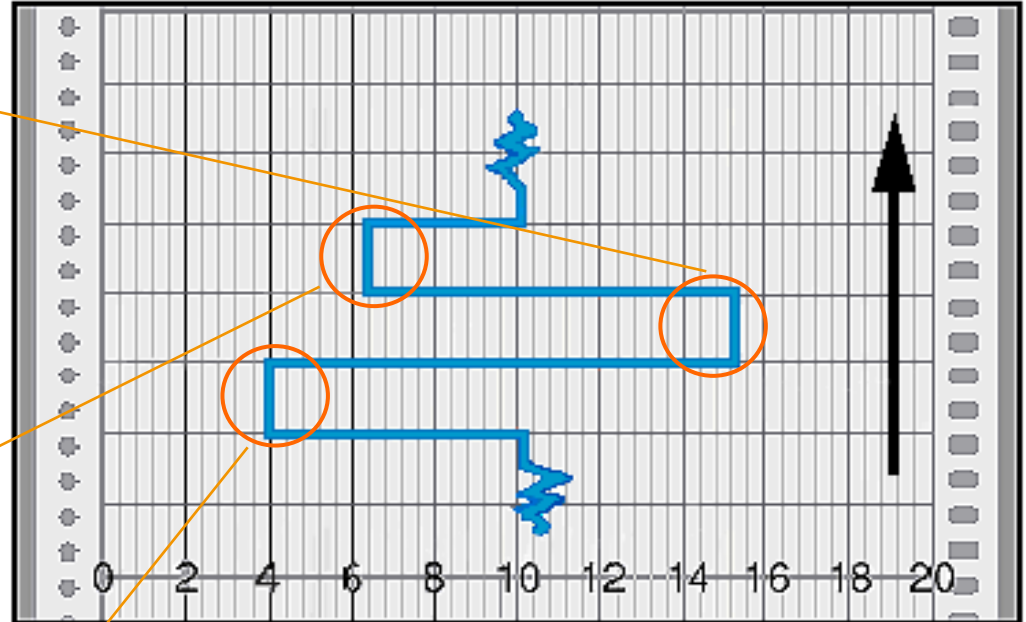
Control value  
measurement



Contamination  
measurement



Zero point  
measurement

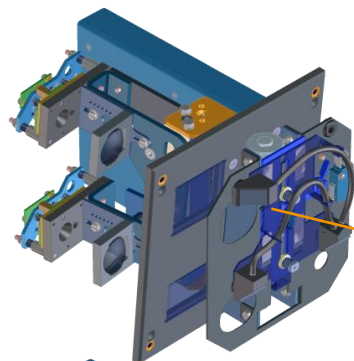


\* Swivel element for  
automatic control  
cycle

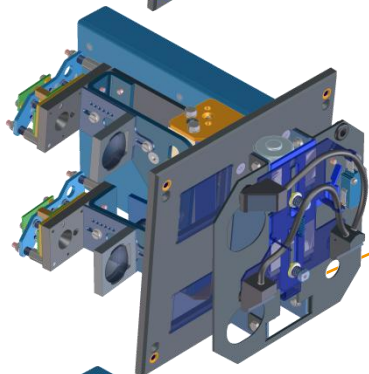


# BACKWARD SCATTERLIGHT AUTOMATIC CONTROL CYCLE

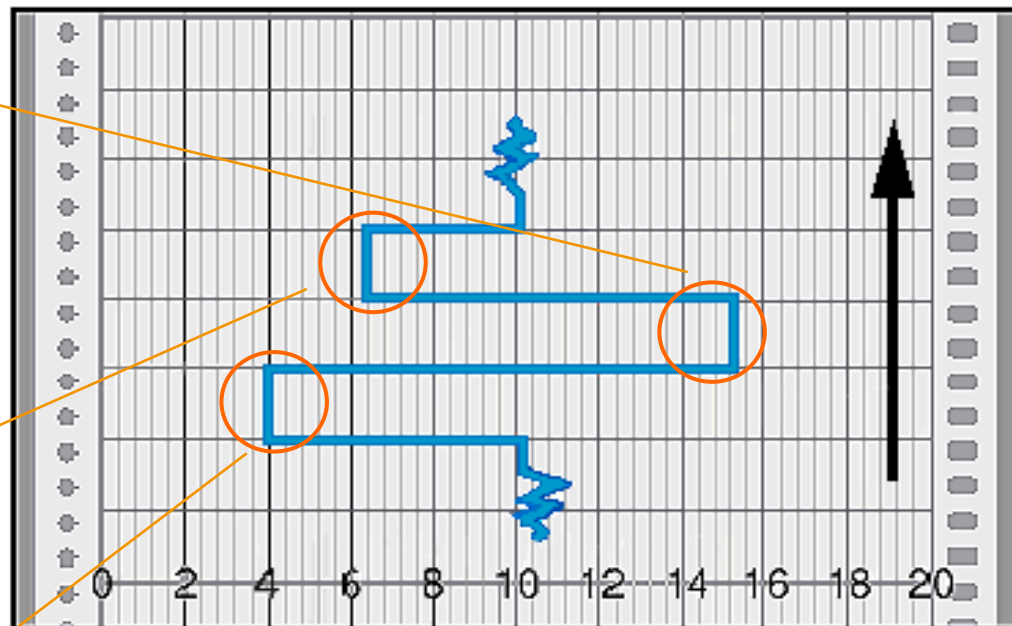
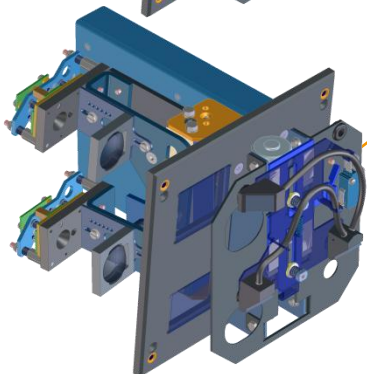
Control value  
measurement



Contamination  
measurement



Zero point  
measurement



MANY THANKS FOR THE ATTENTION

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