Zero Air
Verifications:
Why Reinvent
the Wheel

DAVID CARDIEL- SAN LUIS OBISPO COUNTY APCD

BRIAN MARQUARDT-TEHAMA COUNTY APCD

PQAO TRAINING FEBRUARY 27, 2024

SLO County APCD discarding older equipment

- Annually older components are replaced
- Equipment in working order is listed in various groups
 - CAPCOA Monitoring Group
 - ▶ Google Site Techs
- Looking to transfer equipment to other districts in need

SLO County APCD extra equipment

- ▶ Older 8816 Data Loggers
- ▶ Older 8832 Data Loggers
- ▶ 400A
- ▶ 200A
- ▶ 400E
- ▶ 700E
- Zero Air Generators

Older equipment procedures

- ► California Air Resources Board (CARB) Repository
- ▶ CAPCOA Group
- ▶ Google...

2021 PQAO Zero Air Verification Video

- CARB requested SLO County APCD Staff to present on procedures for Zero Air Verification.
- Spurred questions from Districts about their procedures and possible TSA findings
- Tehama Reached out in 2023 about procedures
- SLO County APCD was about to clean the office and get rid of 3 Teledyne 701's
 - Moved to Sabio for Standard Operating Procedures
 - Streamline maintenance

2023 SLO/Tehama Equipment Transfer

- ▶ Tehama requested equipment for Zero Air Generation/Verification
- ▶ Tehama acquired 2 Teledyne 701's
- Also acquired ESC 8832 with a 12V relay to start the Generator for calibrations
- Acquired various components for Zero Air Verification setup
- ▶ Was sent SLO County APCD SOP 703 with updates.

2023 Tehama/SLO Equipment Transfer

- CARB QA Audit found that no Zero Air Verification was being performed
- Needed to update network to meet PQAO standards

Tehama County Transfer

- Received equipment and still needed help with missing components
- Needed to clarify procedures to adhere to Tehama County equipment

Tehama Equipment integration

- Worked with SLO County APCD staff to Place 701 in rack
- Worked with staff to get 701 integrated with T703 for nightly calibrations
- Worked with staff to update SOP to better adhere to Tehama equipment
- Began auto calibrations with Zero Air Generator in December 2023

Verification Kit

- Received SLO County Kit and performed Verification.
- Received second kit built by SLO County Staff and attached components donated by SLO County APCD
- Tested Tehama County Zero Air Verification Kit
- Finalizing SOP around Tehama kit

Tehama Adopted equipment

- Older equipment when well maintained continue to operate
 - ► Follow Maintenance schedules
 - ► Follow Technical Bulletins
 - Site visits and checks
 - Don't fall for "that should be fine"
- Most equipment can last over 10 years in operation before issues

Conclusion

- Collaboration is key to success
 - ► Teamwork Makes the Dream work
 - ▶ Two heads are better than one
- Organizations in the PQAO are always looking to help each other
- ► CARB is also an important resource for equipment

Why blaze an already established trail?

- Questions
- ▶ Comments?
 - David Cardiel SLO County APCD
 - ▶ dacardiel@co.slo.ca.us
 - Brian Marquardt Tehama County APCD
 - ▶ bmarquardt@tehcoapcd.net
- Credits: "Slapstick Saloon" –Ronnie Price; Compilation 2009
- "Tied to the Rails" –Ronnie Price; Compilation 2009
- ► "We Care A lot" Faith No More; Introduce yourself, 1987