



CAPCOG Review of the Contractor for the Ambient Air Quality Monitoring Assistance 2018 Contract, November 30, 2018

CAPCOG's contractor for ambient air quality monitoring in 2018 was Dios Dado Environmental Limited (DDE). CAPCOG's 2018 contract included three tasks:

- Task 1: Ozone Monitoring
- Task 2: Particulate Matter Monitoring
- Task 3: Other Work

Summary

Over the entire contract, CAPCOG would give DDE a grade of "B," although we note that towards the end of the contract, we were less satisfied with DDE's work based on internal issues going on within the company and communications problems that this created for CAPCOG staff. In October 2018, DDE informed CAPCOG that DDE would be going out of business, and this circumstance created some unique challenges for CAPCOG staff in ensuring the satisfactory completion of this contract, although we did appreciate the commitment of DDE staff to ensure that they finished their obligations under this contract despite these challenges.

Task 1: Ozone Monitoring

CAPCOG is generally satisfied with DDE's performance of Task 1, although there were some deficiencies worth noting. With the exception of site shut-downs, with DDE was required to be completed between 11/15/2018 and 11/30/2018, but which will not be completed until 12/7/2018, DDE performed all of the subtasks for ozone monitoring within the timeframe specified by the contract. CAPCOG is satisfied with the work done for the site start-ups, maintenance, calibrations, data validation, and monthly reports under Task 1. As of noon on 11/30/2018, DDE had completed shutting down three of CAPCOG's eight stations and is expecting an additional four to be completed by the end of the day on 11/30/2018, with the final station to be shut down between 12/3 and 12/7.

Apart from the completion of site shut-downs not being completed by 11/30/2018, there are two contractual requirements that were not carried out to CAPCOG's satisfaction:

1. DDE informed CAPCOG on 11/30/2018 that it had overlooked conducting year-end calibrations at the three sites it shut down prior to 11/30/2018 (CAMS 684, 1603, and 1675)
2. CAPCOG's QAPP requires that DDE review each day's air quality forecast to determine if ozone is likely to be anything other than "good" for that day, and then take steps to avoid the calibration interfering with a site's measurement of the peak 8-hour ozone concentration on that day, such as rescheduling the calibration for a different day or conducting the calibration earlier in the day or later in the day than the 8-hour period most likely to contain the station's peak 8-hour ozone concentration that day.

- a. DDE's records do not clearly document that these types of checks were occurring or what kind of steps they took to avoid conducting calibrations that might interfere with measuring the peak 8-hour O₃ level on a day forecast to be something other than "good." 30% of the days when DDE conducted calibrations, the O₃ forecast for the day was "moderate."
- b. On at least one instance (July 25, 2018, at CAMS 690), despite a forecast for the day from TCEQ for " 'Moderate' or possibly higher" in parts of the Austin area in TCEQ's forecast for the day, DDE did conduct a calibration within a time frame that appeared to interfere with the measurement of the day's peak 8-hour O₃ concentration – there is data loss from 12:00 pm – 3:00 pm when they were conducting the calibration, which is when the peak O₃ levels tend to be recorded. For example, at CAMS 1603, which recorded a peak 8-hour O₃ average of 74 ppb for the day, this three-hour period was critical to the day's 8-hour average.

One of CAPCOG's evaluations of DDE's performance is based on the contractor's ability to meet the set data quality objectives (DQO) for each parameter – ozone, wind direction, wind speed, temperature, and relative humidity. While some of these factors may be beyond the contractor's control, they nevertheless provide information important to understanding the degree to which the contractor's work enabled CAPCOG to meet its own DQOs for this project.

- CAPCOG requires that the ozone analyzers be calibrated every month to an accuracy of +/-7%. DDE met this accuracy for 94% of the calibrations.
- CAPCOG requires a data completeness of 85% for all parameters each month. DDE met this completeness level 97% of the time.

There are some instances where information was missing from a monthly report that required a revision, typos (for instance, accidentally listing the calibration date of 7/25/2018 for CAMS 1603 instead of CAMS 1604), and a slight over-billing for the operation and maintenance task based on the prior contract's rates during the first two months of the contract. These were not major problems, but shouldn't have occurred and reduced CAPCOG's level of overall satisfaction with the contractor, requiring additional levels of vigilance and scrutiny on CAPCOG's part.

Overall, CAPCOG is satisfied with the work performed under Task 1.

Task 2: Particulate Matter Monitoring

DDE's operation, maintenance, and monthly and quarterly instrument checks were satisfactory. However, DDE overlooked completing the quarterly inventory reports required by TCEQ as required in the contract. DDE did rectify the issue once instructed. Overall, CAPCOG is satisfied with DDE's work on particulate matter monitoring.

Task 3: Other Work

Task 3 covered all work not explicitly laid out under Task 1 that DDE might perform during the course of this project. DDE stayed within the allowable expense threshold each month and properly communicated the expenses to CAPCOG. CAPCOG is satisfied with the work performed under this task.