Agenda Item No. C-7

DATE SUBMITTED	10/30/24
SUBMITTED BY	Public Services
DATE ACTION REQUIRED	11/6/24

COUNCIL ACTION	( )
PUBLIC HEARING REQUIRED	( )
RESOLUTION	( )
ORDINANCE 1ST READING	( )
ORDINANCE 2ND READING	( )
CITY CLERK INITIALS	( )

IMPERIAL CITY COUNCIL
AGENDA ITEM

SUBJECT: DISCUSSION/ACTION:

1. Ratify mandated source emissions testing for four (4) diesel-powered generator units within Public Services to be conducted by Air Quality Engineering, Inc.

DEPARTMENT INCLUDED: Public Services

BACKGROUND/SUMMARY:

The City of Imperial is mandated to conduct source emission testing on five (5) of its generators every five (5) years. Four (4) of the 5 units were due for testing October 22, 2024 with one (1) unit due November 12, 2024. The City reached out to three (3) California Air Resources Board approved independent contractors to inquire about availability and cost. Outlined below is the outcome.

- Montrose Air Quality = Calendar full not able to schedule until 1st quarter of 2025
- Absolute Air Testing, Inc = Did not have applicable NOx and CO range needed for testing. Would need to special order the gases and that would take approximately 4 weeks to fulfill.
- Air Quality Engineering, Inc. = Schedule testing for November 4-7,2024. Total (inclusive of prevailing wage) is approximately $42,000. (proposal attached).

Due to time sensitivity and environmental requirements, City approved Air Quality Engineering, Inc. to conduct the mandated testing.

FISCAL IMPACT: NOT TO EXCEED $42,000 water and wastewater accounts	FINANCE INITIALS VMS
STAFF RECOMMENDATION: approve request	DEPT. INITIALS
MANAGER'S RECOMMENDATION: approve	CITY MANAGER'S INITIALS D Hess

MOTION:

SECONDED:
AYES:
NAYES:
ABSENT:

APPROVED ( ) REJECTED ( )
DISAPPROVED ( ) DEFERRED ( )

REFERRED TO:

Ms. Jenell Guerrero, MPA
Public Service Manager
City of Imperial Public Services Department
420 South Imperial Avenue
Imperial, California 92251

Subject: Cost proposal to perform source emissions testing on four (3) diesel-powered generators for oxides of nitrogen (NO_x) and carbon monoxide (CO)

Air Quality Engineering, Inc. (AQE) appreciates the opportunity to submit this cost proposal to develop a source test protocol and then source test four (4) diesel-powered generators for NO_x and CO operated by the City of Imperial.

1.0 QUALIFICATION

Air Quality Engineering, Inc. founded in 1994, provided source emissions testing, air pollution control performance verification, and combustion optimization for various clients such as:

1. City of Calexico
2. City of Brawley
3. City of El Centro
4. City of Los Angeles – Bureau of Sanitation, Hyperion Treatment Plant
5. Orange County Public Works
6. John Wayne Airport
7. Lockheed Martin, Aeronautics
8. Northrop Grumman Systems Corporation
9. Ecobat Resources – California
10. Ecobat Resources – New York
11. Ecobat Resources – Indiana
12. Watson Cogeneration Company – GE Frame 7 GTG/HRSG
13. Harbor Cogeneration – Alliance Energy Group
14. New-Indy Container Board – Solar Turbine
15. BloomEnergy
16. ConocoPhillips
17. Shell Oil Products US
18. Marathon Marine Loading Terminal
19. EDL – Brea Olinda Alpha Landfill to Energy
20. Lhoist North America – Apex Plant, Nevada
21. Lhoist North America – Nelson Plant, Arizona
22. Kinder Morgan
23. World Oil Recycling
24. Kimberly Clark Worldwide
25. Diamond Pet Foods
26. UniFirst – Santa Fe Springs, Gardena, and Ontario

2.0 SCOPE OF WORK

2.1 Source Emissions Test Plan/Protocol

Air Quality Engineering, Inc. will prepare and submit the test plan to the City of Imperial (the City) for review and comments. AQE will incorporate changes based on comments provided by the City. Following revisions, the City will submit the test protocol to the Imperial County Air Pollution Control District (ICAPCD) for their review and approval. The source test will commence upon ICAPCD's acceptance of the protocol. The protocol approval will implement specific requirements during the source test.

2.2 Source Emissions Testing

The source emissions test will consist of triplicate (3) 60-minute test runs with each generator running at no less than 80% of its permitted capacity. To calculate and convert part(s) per million to pound(s) per hour, velocity and volumetric flow rate will be determined by performing velocity traverse in conjunction with moisture and molecular weight. The required test matrix, including the parameters, test methods, and the number and duration of runs, is shown in Table 1.

TABLE 1
TESTING REQUIREMENTS

Pollutant/Parameter	Analytical Technique	Reference Method	No. of Test	Duration of Test (minutes)
Oxygen	Paramagnetic	CARB 3	3	Integrated
Carbon Dioxide	NDIR	CARB 3	3	Integrated
Oxides of Nitrogen	Chemiluminescence	CARB 100	3	1-hour
Velocity	Pitot tube	CARB 2	3	Concurrently with 100
Flow Rate	Calculation	CARB 2	3	Concurrently with 100
Moisture	Gravimetric	CARB 4	3	Concurrently with 100

2.3 Report

When the field testing is completed and all laboratory data is received, a summary of the source test results will be reviewed within 30 days. The report will be submitted to the City for comments within 45 days following the completion of the test. Comments from the City will be incorporated into the final report. The report will be issued thereafter and submitted by the City to the ICAPCD for their review and approval.

3.0 COST

Air Quality Engineering will perform the described scope of works for the following costs detailed as follows:

Task	Description	Cost
1	Source test plan/protocol	$2,260
2	Source emissions testing and reporting for NO_x and CO – Permit #3687	$9,860
3	Source emissions testing and reporting for NO_x and CO – Permit #3711	$9,750
4	Source emissions testing and reporting for NO_x and CO – Permit #2386	$9,750
5	Source emissions testing and reporting for NO_x and CO – Permit #4349	$9,750

The above cost includes test plan preparation, traveling, hotel, per diem, testing, reporting, and taxes when applicable. Prevailing wages were part of the cost determination.

4.0 DELAY/ADDITIONAL TESTING CHARGES

The following formula will be used to calculate travel time, delay, or additional test costs:

- Hourly Delays – Number of AQE personnel onsite x $165/hr
- Equipment Fees – Number of hours onsite x $520/hr

5.0 ASSUMPTION

- Flow can be measured with a Pitot tube, inclined manometer, or micro-electronic manometer (when ΔP <0.05" H_2O).
- The Client will provide all required test ports, work platforms, and safe, clear access to the test locations including man-lift or scaffolding (conforming to OSHA standards) if necessary.
- The source is available for testing when AQE is ready to test.
- The client will furnish the personnel and equipment necessary to monitor the operation of the applicable unit during the field test.
- The client will provide AQE with pertinent source drawings, plans, and a complete description of the facility, including schematics of the process for inclusion in the final test report.

If AQE cannot test during the scheduled work hours due to the client's process, client's equipment problems, inclement weather, etc., or in the event the client requests AQE to perform additional testing, the client agrees to pay an additional charge according to AQE's standard rate sheet. The standard fees, terms, and conditions enclosed apply to all services offered and performed. A purchase order referencing this quotation must be submitted to AQE before initiating any project-related tasks.

Should you have any questions or require additional information regarding this proposal, please do not hesitate to contact me at your earliest convenience.

Sincerely,

AIR QUALITY ENGINEERING, INC.

Sean H. Nguyen
Manager

City of Imperial

Dennis H. Morita
Approved by (Signature)

Dennis Morita
Name

80980
(Purchased Order No.)

10/30/24
Date