

BOARD MEETING DATE: May 3, 2024

AGENDA NO. 3

PROPOSAL: Transfer Funds Between Major Objects, Issue Solicitations and Purchase Orders for AQ-SPEC Program

SYNOPSIS: The AQ-SPEC Program performs systematic, detailed characterizations of currently available air monitoring sensors using both field and laboratory-based testing and communicates the results to the public. AQ-SPEC funds are included as part of Monitoring & Analysis' FY 2023-24 adopted budget. Based on an assessment of the priorities and resources of this program, there is a need to reallocate funds for enhancing VOC sensor testing capabilities. This action is to transfer up to \$47,000 between Major Objects, and issue solicitations and purchase orders for air monitoring equipment.

COMMITTEE: Administrative, April 12, 2024; Recommended for Approval

RECOMMENDED ACTIONS:

1. Transfer up to \$47,000 from the Services and Supplies Major Object to the Capital Outlays Major Object in Monitoring & Analysis (MAD) FY 2023-24 Budget (Org 43);
2. Authorize the Procurement Manager, in accordance with South Coast AQMD's Procurement Policy and Procedure, to issue sole source purchase orders for the following items as listed in Table 1:
 - a. One Vici DBS USA (Vici) DB-PHG250-US Hydrogen Gas Generator in an amount not to exceed \$11,000; and
 - b. One Entech Instruments, Inc. (Entech) 4700/SL2 Precision Static Diluter System with Controller in an amount not to exceed \$25,000; and
3. Authorize the Procurement Manager, in accordance with South Coast AQMD's Procurement Policy and Procedure, to issue 'Prior Bid, Last Price' or solicitation(s) as needed, and based on results, issue a purchase order for one nitrogen gas generator with an air compressor in an amount not to exceed \$11,000 as listed in Table 1.

Wayne Natri
Executive Officer

Background

South Coast AQMD established the AQ-SPEC program to characterize the performance of commercially available air quality sensors using both field and laboratory-based testing and communicate such results to the public through an information website. Air quality sensors that produce reliable data can significantly augment and supplement current ambient air monitoring capabilities that predominantly rely on more sophisticated and expensive fixed-site federal-reference monitoring devices and methods. In addition, air quality sensors have become effective tools to introduce the public to air quality matters. The type and number of sensors that have been tested through the AQ-SPEC program have increased substantially over the years. To date, South Coast AQMD has evaluated over 200 sensors measuring particle and gaseous pollutants (mainly fine particulate matter, ozone, NO_x and other criteria pollutants) for their accuracy and overall quality. Interest is rapidly increasing in the use of air quality sensors for measurements of VOCs, with potential applications for ambient air monitoring, hotspot detection, personal exposure, and fence-line monitoring. Expansion of the AQ-SPEC program requires additional specialized field and laboratory equipment to support performance testing of VOC sensors.

Proposal

This action is to transfer up to \$47,000 from the Services and Supplies Major Object to the Capital Outlays Major Object in MAD's FY 2023-24 Budget (Org 43). This action is to also authorize the Procurement Manager, in accordance with South Coast AQMD's Procurement Policy and Procedure, to issue sole source purchase orders and a 'Prior Bid, Last Price' or solicitation(s) as needed, and based on results, issue a purchase order, as listed in Table 1.

Vici Model DB-PHG250-US Hydrogen Gas Generator

A hydrogen gas generator is needed to provide a self-sustained source of high-purity hydrogen as fuel gas for a reference monitor for testing VOC sensors in the field. This hydrogen generator has minimal requirements for maintenance while providing operational efficiency and substantial safety advantages compared to using compressed hydrogen cylinders. The estimated cost for the hydrogen gas generator is \$11,000 (Table 1).

Entech Model 4700/SL2 Precision Static Diluter System with Controller

A precision static diluter system with controller is needed to accurately prepare low-concentration VOC canister standards from concentrated stock cylinders. These are needed to calibrate a reference monitor for testing VOC sensors in the laboratory. The Entech Model 4700/SL2 precision static diluter system can achieve up to 10,000 times dilution via two stage dilutions to provide canister standards ranging from parts per billion to low parts per trillion. The Entech Model 4700/SL2 has been used for canister standard preparation at the South Coast AQMD laboratory for several years. The estimated cost of the precision static diluter system with controller is \$25,000 (Table 1).

Nitrogen Gas Generator with Air Compressor

A nitrogen gas generator with air compressor is required to provide a self-sustained source of high-purity (at least 99.999%) nitrogen as a carrier gas for a reference monitor for testing VOC sensors in the field. A nitrogen gas generator has minimal requirements for maintenance while providing operations efficiency and safety advantages compared to using compressed nitrogen cylinders. The estimated cost of the nitrogen gas generator with air compressor is \$11,000 (Table 1).

Sole Source Justification

Section VIII.B.2 of South Coast AQMD's Procurement Policy and Procedures identifies four major provisions under which sole source awards can be made.

The request for sole source purchase of the Vici Hydrogen Gas Generator is made under provision VIII.B.2.c.(1), "The unique experience and capabilities of the proposed contractor of contractor team." The Vici Hydrogen Gas Generator has a unique drying system that eliminates the requirement for replacing cartridges, reducing downtime and future consumables cost.

The request for sole source purchase of the Entech Precision Static Diluter with Controller is made under provision VIII.B.2.d.(6), "Other circumstances exist which in the determination of the Executive Officer require such waiver in the best interests of the South Coast AQMD. Such circumstances may include but are not limited to projects requiring compatibility with existing specialized equipment." This equipment is compatible and consistent with other equipment already used in South Coast AQMD's laboratory with a consistent history of accuracy and reliability.

Benefits to South Coast AQMD

The proposed purchases will enhance the VOC field and laboratory testing capabilities of the AQ-SPEC program, as VOC sensors are becoming more commercially available.

Resource Impacts

Sufficient funding is currently available to transfer funds and purchase the instruments needed to enhance the field and laboratory VOC sensor testing capabilities of the AQ-SPEC program.

Table 1
Proposed Purchases through Sole Source Purchase Orders

Description	Account Number	Qty	Estimated Amount	Contracting Method
Vici DBS USA, Model DB-PHG250-US Hydrogen Gas Generator	77000	1	\$11,000	Sole Source
Entech Instruments Inc., Model 4700/SL2 Precision Static Diluter System with Controller	77000	1	\$25,000	Sole Source
Nitrogen Gas Generator with Air Compressor	77000	1	\$11,000	'Prior Bid, Last Price' or Solicitation Process
Total			\$47,000	