BOARD MEETING DATE: September 2, 2022 AGENDA NO. 6

PROPOSAL: Appropriate Funds, Issue Solicitations and Purchase Orders for Laboratory and Air Monitoring Equipment

SYNOPSIS: Laboratory equipment is needed to support current ethylene oxide investigations, including ones in AB 617 communities. In addition, the FY 2022-23 budget authorized Capital Outlays in the amount of $513,000 for air monitoring and laboratory equipment. An additional $250,000 is needed to purchase equipment to analyze ethylene oxide samples and other toxic air contaminants. These actions are to appropriate funds up to $250,000 from the General Fund Undesignated (Unassigned) Fund Balance to Monitoring & Analysis FY 2022-23 Budget to issue solicitations and purchase orders for laboratory and air monitoring equipment in an amount up to $718,000.

COMMITTEE: Administrative, August 12, 2022; Recommended for Approval

RECOMMENDED ACTIONS:
1. Appropriate funds up to $250,000 from the General Fund Undesignated (Unassigned) Fund Balance to Monitoring & Analysis FY 2022-23 Budget; and
2. Authorize the Procurement Manager, in accordance with South Coast AQMD's Procurement Policy and Procedure, to issue "Prior Bid, Last Price" or "Sole Source" purchase orders, or solicitation(s), as needed and based on results of the solicitation process, issue purchase orders for items listed in Table 1 upon appropriation and Table 2 as approved in the FY 2022-23 Adopted Budget.

Wayne Nastri
Executive Officer

JCL:RMB:SD:ld:ev

Background

VOCs and VOCs with toxic air contaminants are emitted from different sources, including solvent use, chemical manufacturing, and other general industrial activities, which have been identified as an air quality priority in the CAMPs of multiple AB 617

communities. Ethylene oxide is a VOC toxic air contaminant that is used in many industrial processes including sterilization of medical equipment. There are six large-scale ethylene oxide sterilization facilities within South Coast AQMD's jurisdiction, three of which are located in AB 617 communities. In March 2022, South Coast AQMD began investigating facilities that emit ethylene oxide and started ambient air monitoring of ethylene oxide near these facilities and in the surrounding communities.

South Coast AQMD conducts ambient monitoring of VOCs, including ethylene oxide, in accordance with the National Air Toxics Trend Sites (NATTS) program guidelines using U.S. EPA method TO-15, which is considered the gold standard for these measurements. The NATTS program is currently transitioning from TO-15 to TO-15A, and the South Coast AQMD laboratory has already started to adopt some of the more stringent quality control requirements, including the stricter canister cleanliness criteria described in U.S. EPA Compendium Method TO-15A, in anticipation of the updated guidelines. The gas chromatograph-mass spectrometer (GC-MS) system currently used to analyze VOC canister samples collected for AB 617, special monitoring and incident response projects does not reliably meet the stringent TO-15A quality control criteria and cannot provide the detection limits required for ambient air monitoring of ethylene oxide. Consequently, there is a need to replace this GC-MS with a system that is identical to the one currently used for NATTS, which is able to satisfy all TO-15A requirements for ethylene oxide detection and is fully compatible with our current sampling equipment and data validation and analysis tools.

FY 2022-23 Capital Outlays Approved in the Adopted Budget

In May 2022, the Board approved the Executive Officer's Proposed Goals and Priority Objectives and Proposed Budget for FY 2022-23. The FY 2022-23 Adopted Budget includes capital outlay funds for the replacement of air monitoring and laboratory equipment to support Priority Objective I, ensuring efficient air monitoring and laboratory operations as recommended.

Proposal

Proposed Purchases through an RFQ Process, "Prior Bid, Last Price" Solicitation or Cooperative Agreement

Air Monitoring Trailer Replacement

U.S. EPA requires criteria pollutant measurements be made in a temperature controlled secure environment to support compliance with the Ambient Air Quality Standards (NAAQS) and emissions strategy development. Two of the current air monitoring trailers were originally CARB property and date back to 1980. Replacement is critical to meeting data completeness requirements and providing air quality data to the public. The approximate cost for two air monitoring trailers is $210,000 (see Table 2). The purchase will be made through a solicitation process, followed by issuance of a purchase order(s).

Gas Dilution Systems
U.S. EPA requires the measurement of criteria pollutants at multiple sites. Periodic calibration of air monitors is required to meet U.S. EPA quality control criteria. Gas dilution systems are necessary to provide a known concentration of gas standard required for the calibration of air monitoring equipment. The current gas dilution systems are greater than ten years old and no longer meet U.S. EPA quality control requirements. The approximate cost for up to two gas dilution systems that meet U.S. EPA requirements is $50,000 (see Table 2).

PM10 Continuous FEM Monitors
The South Coast AQMD criteria pollutant air monitoring network contains 19 PM10 monitors, as part of U.S. EPA minimum monitoring requirement to support compliance with NAAQS and emissions strategy development. Replacement of the current PM10 FRM monitors with continuous FEM monitors will fulfill monitoring requirements and also provide hourly data to the public. The approximate cost for up to three PM10 continuous FEM monitors is $50,000 (see Table 2).

Proposed Purchases through Sole Source Purchase Orders
Agilent 8890 GC/5977B MSD Gas Chromatograph – Mass Spectrometer System
South Coast AQMD supports incident response and special monitoring projects in environmental justice communities and as part of facility investigations. The cryogenic gas concentrators are utilized for incident response, odor complaints, oil field-related activities, and source apportionment. Due to increasing sample overhead for NATTS and ethylene oxide analysis, a new GC-MS is required to keep pace with analytical needs, especially for detection of toxic compounds at low concentration. An Agilent GC-MS is required in order to meet the strict requirements of the TO-15A analysis. The technical specifications of the Agilent 7890GC/5977MSD Gas Chromatograph are consistent with the existing South Coast AQMD laboratory equipment. The approximate cost for the Agilent 7890GC/5977MSD Gas Chromatograph – Mass Spectrometer System is $165,000 (see Table 1).

Entech 7200A Cryogenic Pre-Concentrator with Auto Sampler
South Coast AQMD supports incident response and special monitoring projects in environmental justice communities and as part of facility investigations. The cryogenic gas concentrators are utilized for incident response, odor complaints, oil field-related activities, and source apportionment. The current pre-concentrators are more than 15 years old, replacement parts are no longer available, and the software operating system is no longer supported. The technical specifications of the cryogenic pre-concentrator with auto sampler are proprietary and consistent with the existing South Coast AQMD laboratory equipment. The approximate cost for each cryogenic pre-concentrator with auto sampler is $85,000 (see Tables 1 and 2).

Agilaire 8872 Data Loggers
The South Coast AQMD air monitoring network operates 42 sites utilizing data loggers as part of U.S. EPA minimum monitoring requirement to support compliance with NAAQS and emissions strategy development and to provide air pollution data to the public in a timely manner. The monitoring site data loggers are greater than 15 years old and will no longer be supported by the manufacturer beyond the most recent Windows 10 upgrade. Data loggers are used for real time reporting of air quality data to U.S. EPA and CARB and is converted to AQI values for the public. The technical specifications of the data loggers are proprietary and consistent with the existing South Coast AQMD air monitoring network. The approximate cost for four data loggers is $38,000 (see Table 2).

Fluke Calibration Modules
Currently flow standards are sent out to vendors to be certified. Recently, there has been a national shortage of vendors available to provide these services. The addition of the requested elements will provide the capability to certify flow measurement standards for particulate monitors. The current standards are certified by an outside vendor who has been unable to recertify standards regularly and is jeopardizing our ability to meet U.S. EPA PM10 and PM2.5 program requirements. The technical specifications of the calibration modules are proprietary and consistent with the existing South Coast AQMD flow calibration computer. The approximate cost for three calibration modules is $35,000 (see Table 2).

Sole Source Justification
Section VIII.B.2 of the South Coast AQMD's Procurement Policy and Procedure identifies provisions under which a sole source award may be justified. The request for sole source award for the Agilaire 8872 data loggers and Fluke calibration modules are made under provision VIII.B.2.c.(2). projects involve the use of proprietary technologies.

Agilaire, LLC is the only manufacturer who produces data loggers compatible with their AirVision® software which runs the data collection system for continuous monitoring equipment at all fixed South Coast AQMD air monitoring network sites. The calibration modules involve the use of proprietary technology and Fluke Calibration is the only manufacturer who produces calibration modules compatible with their Molbox mass flow terminal which South Coast AQMD methods use as the primary flow calibration system for quality control standards for air monitoring network sites.

The request for the Agilent GC-MS for sole source award is made under provisions VIII.B.2.b. public health or property may be endangered by delay; and VIII.B.2.d.(6), projects requiring compatibility with existing specialized equipment. South Coast AQMD has ongoing investigations into emissions of EtO from facilities within its jurisdiction due to its potential risk to off-site workers. Delays in purchasing this

instrumentation will delay analysis as investigations continue. Agilent Technologies is the manufacturer and supplier of the GC-MS system currently used by South Coast AQMD to implement U.S. EPA's NATTS program and used for analysis of samples for the ethylene oxide investigations. This system has been demonstrated to meet stringent TO-15A requirements, which is required. Staff are trained on the use, repair, and maintenance of this equipment, facilitating cross-training and interoperability. Consistency and compatibility amongst these GC-MS' are critical to meet the operational needs of the agency. The request for the cryogenic pre-concentrators with auto sampler for sole source award is made under provision VIII.B.2.d.6. projects requiring compatibility with existing specialized equipment. The laboratory operates four Entech cryogenic pre-concentrators. Staff are trained on the use, repair, and maintenance of this equipment, facilitating cross-training and interoperability. Consistency and compatibility amongst these pre-concentrators are critical to meet the operational needs of the agency.

Resource Impacts

Sufficient funding for the Capital Outlays listed in Table 1 is available from the General Fund Undesignated (Unassigned) Fund Balance and sufficient funding for the Capital Outlays listed in Table 2 is included in the FY 2022-23 Adopted Budget.

Attachments

Table 1: FY 2022-23 Proposed Capital Outlay Expenditures from Appropriation from the General Fund Undesignated (Unassigned) Fund Balance

Table 2: FY 2022-23 Adopted Budget Capital Outlays Major Object

Table 1
FY 2022-23 Proposed Capital Outlay Expenditures from Appropriation from the General Fund Undesignated (Unassigned) Fund Balance

Description	Qty	Work Program Code	Estimated Amount	Contracting Method
Agilent 8890 GC/5977BMSD887890GC/ 5977MSD Gas Chromatograph – Mass Spectrometer System	1	46064	$165,000	Sole Source
Entech 7200A Cryogenic Pre-Concentrator with Auto Sampler	1	46064	$85,000	Sole Source
Total			**$250,000**	

Table 2
FY 2022-23 Adopted Budget Capital Outlays Major Object

Description	Qty	Work Program Code	Estimated Amount	Contracting Method
Air Monitoring Trailer Replacement	Up to 2	46064	$210,000	Solicitation
Gas Dilution Systems	Up to 2	46064	$50,000	'Prior Bid, Last Price' or Solicitation
PM10 Continuous FEM Monitor	Up to 3	46064	$50,000	'Prior Bid, Last Price' or Solicitation
Agilaire 8872 Data Loggers	Up to 4	46064	$38,000	Sole Source
Fluke Calibration Modules	Up to 3	46064	$35,000	Sole Source
Entech 7200A Cryogenic Pre-Concentrator with Auto Sampler	1	46064	$85,000	Sole Source
Total			**$468,000**	