

BOARD MEETING DATE: December 4, 2015

AGENDA NO. 2

PROPOSAL: Appropriate Funds to Purchase Hand-Held XRF Analyzers

SYNOPSIS: Staff is requesting approval for the purchase of monitoring equipment to support rule compliance verification activities and potential toxic release evaluations from operations within the SCAQMD. These actions are to appropriate funding to Planning, Rule Development and Area Sources' FY 2015-16 Budget and to issue a purchase order for two hand-held XRF analyzers in an amount not to exceed \$77,300.

COMMITTEE: Administrative, November 13, 2015; Recommended for Approval

RECOMMENDED ACTIONS:

1. Appropriate \$77,300 from the General Fund Undesignated (Unassigned) Fund Balance to the Planning, Rule Development and Area Sources FY 2015-16 Budget (Org 26), Capital Outlays Major Object; and.
2. Authorize the Procurement Manager, in accordance with SCAQMD's Procurement Policy and Procedure, to issue a sole source purchase order to Bruker Elemental for two (2) Bruker S1 TITAN 800-8 XRF analyzers in an amount not to exceed \$77,300.

Barry R. Wallerstein, D.Env.
Executive Officer

PF:DD:

Background

There is an immediate and urgent need for the purchase of two portable X-Ray Fluorescence (XRF) hand held analyzers to assist in metal determination from fallout, and other contaminated waste sources on various substrates and soil. SCAQMD staff in the Area Sources Unit currently uses an older antiquated XRF analyzer that was purchased in early 2007. The XRF has been consistently utilized for over eight years in the determination of concentrations of chromium, copper, and arsenic (CCA) in treated wood waste and contaminated soil, and has been an invaluable tool for compliance purposes relative to the Open Burn Program pursuant to Rule 444.

Recent rule implementation and enforcement efforts regarding potential contamination from releases and day-to-day operations have further substantiated the urgent need for additional XRF analyzers, including recent efforts at the Exide and Exxon-Mobil facilities. There have been emissions created as a result of operations from these two particular facilities that contain metals, including lead and cadmium, which may potentially end up in surrounding communities. Although samples are physically taken and brought to certified labs for analysis, instantaneous readings using these hand held portable XRF units would better serve the immediate needs of the public by alerting them to take any necessary precautions warranted for the given situation, and to minimize their exposure to potential toxics. Ongoing investigations in the surrounding communities at these facilities, and other locations that may be affected by similar operations throughout the SCAQMD's jurisdiction, continue to be a priority for the health and wellbeing of the public, thereby necessitating the immediate need for the analyzers.

Proposal

Issue Sole Source Purchase Order for XRF Analyzers

An informal process was initiated by staff to determine the extent of manufacturers that make these units and the field was narrowed down to three. Staff from the Lab, Planning & Rules, and Engineering and Compliance met with two of the manufacturers where the analyzers were demonstrated and questions were asked. A third manufacturer failed to show up at the scheduled meeting time, but did submit detailed product information. All three manufacturers submitted quotes for the analyzers, which were all within 10%. The unit that best fits the needs of the SCAQMD has been determined as follows:

Bruker S1 TITAN 800: 37 elements, including light elements Mg, Al & Si

- EPA Method 6200. Analyze all 26 elements and more, from Magnesium (Mg) to Uranium (U)
- Analyze all 8 Resource Conservation and Recovery Act (RCRA) metals: As, Ba, Cd, Cr, Pb, Se, Ag and Hg
- 13 Priority Pollutant metals in soil, 12 can be easily detected with field portable XRF (FPXRF) guns, namely Antimony (Sb), Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Nickel (Ni), Selenium (Se,) Silver (Ag), Thallium (Tl) and Zinc (Zn) (the exception being Beryllium (Be)).
- Built-in camera system
- EasyCal software on laptop computer
- Allows for custom calibrations on XRF instrument
- Useful for future Lead analysis and rule amendments
- Soil calibration application for Pb, As, Cr, and Cu

The following accessories were also determined to be extremely helpful:

- S1 Titan Extension Pole, includes soil foot and remote trigger
 - o Allows taking multiple soil sample readings without having to bend down
 - o Increases distance between operator and X-Ray production unit
 - o Increases reach for taking readings
- Desktop Stand Kit
 - o Lightweight collapsible travel stand, which fits inside the large Pelican 1550 shipping case. Kit includes Desktop Stand, USB cable, AC adapter, and S1 TOOLBOX
 - o Allows testing dust wipe samples in the field
- Dual GPS (model Dual XS 150A). When connected to the S1 TITAN via Bluetooth wireless, each assay will be tagged with longitude, latitude, and altitude
- EasyCal software
 - o Allows custom calibration setups for XRF instrument

Sole Source Justification

Section VIII, B.2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. The request for a sole source purchase of the analyzers is made under Section VIII, B.2.b of the Procurement Policy and Procedure. The award is being made and justified under subparagraph (b), public health or property may be endangered by delay. Bruker Elemental is the only company that best fits the immediate and urgent needs for the purchase of multiple XRF analyzers.

Benefits to SCAQMD

The funding will support the purchase of equipment to continue ongoing efforts to ensure the health and safety of the public potentially subjected to emissions exposures within the SCAQMD that may pose adverse health impacts.

Resource Impacts

Existing SCAQMD resources will be sufficient for rule implementation efforts. Upon Board approval, sufficient funding will be available in the Planning, Rule Development and Area Sources FY 2015-16 Budget. These funds are adequate to cover the proposed Capital Outlay Major Object purchase.

Attachment

Quote for two (2) XRF Analyzers – Bruker Elemental



Account Name	South Coast Air Quality Management Distr	Created Date	11/5/2015
Quote Number	00003035		
Contact Name	David De Boer	Sales Rep	Nate Davies
Phone	(909) 396-2329	Sales Rep Ph#	619.313.4008
Email	ddeboer@agmd.gov	Sales Rep Email	nate@kivatech.com
Bill To Name	South Coast Air Quality Management Distr	Ship To Name	South Coast Air Quality Management Distr
Bill To	21865 Copley Dr Diamond Bar, CALIFORNIA 91765 USA	Materials	Soil/ Sediments
Industries	Government		
Applications	Soil/ Environmental Analysis		

Bruker S1 TITAN 800

- Rhodium(Rh) thin window X-ray tube based 50 kV handheld XRF analyzer
- Wide Range X-Ray Generator 5-50kV with 200 microA max. current
- Highest Performance Light Element excitation and detection
- Automated 5 position primary beam Filter changer with 4 pre-fitted filters
- Large silicon drift detector (FAST™ SDD) based instrument with light element capability, elemental range Mg - U
- Equipped with the patent pending TITAN Detector Shield™
- Features the patented SharpBeam™ optical beam path for best performance at lowest power settings
- Integrated camera system capable of capturing up to 5 images at any distance for aligning samples & data documentation
- Select 3, 5, or 8mm beam spot
- IP54 rated industrial grade molded housing with no-slip rubberized grip and contour housing protection
- High performance and contrast daylight visible TFT LCD 3.7" touchscreen display
- S1 TITAN OS embedded SW with multilingual support
- Measurement and testing modes include Pass/Fail, Grade ID and Chemistry mode
- Bluetooth™ and USB connectivity
- Includes 2 high performance Li-Ion batteries with ventilated smart charger
- Min 4 GB USB stick for data storage and easy reporting
- S1 TITAN Toolbox software package for instrument
- Small sample background plate
- 5 spare windows
- Extensive manuals and safety video
- Waterproof and pressure equilibrated PELICAN™ transport case
- TITAN Detector Shield™ LIFETIME Guarantee (see page 2 for details)

Product Code	Product	List Price	Quantity	Discount	Total Price
S1 TITAN-800-5	S1 TITAN-800-5	\$32,000.00	2.00	14.00%	\$55,040.00
200.0074	EasyCal Software	\$5,000.00	1.00		\$5,000.00
040.0155	EasyCal Software TRAINING	\$2,000.00	1.00		\$2,000.00
200.0071	S1 Titan Extension Pole- includes soil foot and remote trigger	\$2,050.00	2.00	14.00%	\$3,526.00
730.0083	Soil calibration with light element capability (Mg-U) for environmental applications (also used for catalytic converter and e-scrap recycling applications).	\$1,500.00	2.00	14.00%	\$2,580.00
200.0057	TITAN-DTSTAND	\$900.00	2.00		\$1,800.00
160.0074	TITAN GPS DUAL	\$385.00	2.00		\$770.00



Subtotal	\$80,670.00
Discount	12.34%
Total Price	\$70,716.00
Shipping and Handling	\$130.00
Grand Total	\$70,846.00

Terms and Conditions

TITAN Detector Shield™ Guarantee

If the S1 TITAN detector is punctured, under normal operating conditions, while equipped with a TITAN Detector Shield, Bruker will replace the punctured detector at no charge.

1. Guaranteed for the life of the S1 TITAN.
2. This guarantee is not transferrable; it only applies to the original equipment purchaser.
3. This guarantee only applies to punctures. Any other type of detector failure is not covered. This includes, but is not limited to, excessive force and/or tripping of the internal shock watch sensor.
4. Customer must use & maintain the protective window (Ultralene® or Kapton®); failure to operate without the protective window can allow debris to damage the detector without puncturing the detector.
5. This guarantee applies only to USA and Canada

Prices

All prices are in USD plus sales taxes where applicable.

Scope

This offer contains all agreements and is in lieu of all other oral agreements, guarantees, promises, representations or warranties expressed or implied. This quotation supersedes all preceding quotations.

Payment

Net 30 Days (upon approval) with Purchase Order unless otherwise noted.

Please make Purchase Order to:

Bruker Elemental

415 N Quay, Suite 1

Kennewick, WA 99336

Attn: Sales Dept

FAX# 509-735-9696

Email: orders.hmp@bruker.com

Validity

Quote valid for 60 days from date of issue unless otherwise noted.

All specifications are subject to change without prior notification.

Shipment / Delivery

All Prices Ex-Works, factory, Kennewick, WA USA

Normal equipment delivery is 4-6 weeks after receipt of order, unless otherwise stated. Quicker deliveries are available.

Conditional Sale

All goods remain property of Bruker Elemental until full payment has been received.

Regulatory Approval

Buyer is responsible for maintaining its authorization for use of the instruments in necessary jurisdictions.

Warranty

Bruker Elemental
415 N. Quay Street
Kennewick, WA 99336



Two-year standard warranty includes part & labor, 1-year warranty on accessories including batteries.
1yr extension available at \$2700, 3yr extension at \$7650

1-yr extended Warranty, TITAN 600/800 if purchased within the warranty period per year at \$3000

The warranty period for this quote starts from date of invoice not date of shipment, if different.

Bruker Elemental reserves the right to apply modifications to technical details that reflect the technological progress or increase the operational safety of the instrument.

IMPORTANT NOTICE: This document contains information that is confidential and/or subject to legal privileges. Any review, printing, copying, retention, disclosure, distribution or use of this document is strictly prohibited.

This quote is subject to Bruker Elemental Standard Terms and Conditions (attached).