

EPA ENFORCEMENT ACCOUNTS RECEIVABLE CONTROL NUMBER FORM FOR ADMINISTRATIVE ACTIONS

This form was originated by Wanda I. Santiago for JEFF Norcross 12/28/11  
Name of Case Attorney Date

in the ORC (RAA) at 918-1113  
Office & Mail Code Phone number

Case Docket Number CAA-01-2011-0129

Site-specific Superfund (SF) Acct. Number \_\_\_\_\_

This is an original debt  This is a modification

Name and address of Person and/or Company/Municipality making the payment:

Andrew J. Skipp, President  
HUBBARD-HALL, Inc.  
563 South Leonard St.  
Waterbury, CT. 06720

Total Dollar Amount of Receivable \$ 48,090.00 Due Date: 1/27/12

SEP due? Yes  No  Date Due 2/26/12

Installment Method (if applicable)

INSTALLMENTS OF:

- 1<sup>ST</sup> \$ \_\_\_\_\_ on \_\_\_\_\_
- 2<sup>nd</sup> \$ \_\_\_\_\_ on \_\_\_\_\_
- 3<sup>rd</sup> \$ \_\_\_\_\_ on \_\_\_\_\_
- 4<sup>th</sup> \$ \_\_\_\_\_ on \_\_\_\_\_
- 5<sup>th</sup> \$ \_\_\_\_\_ on \_\_\_\_\_

For RHC Tracking Purposes:

Copy of Check Received by RHC \_\_\_\_\_ Notice Sent to Finance \_\_\_\_\_

**TO BE FILLED OUT BY LOCAL FINANCIAL MANAGEMENT OFFICE:**

IFMS Accounts Receivable Control Number \_\_\_\_\_

If you have any questions call: \_\_\_\_\_  
in the Financial Management Office Phone Number

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1 – NEW ENGLAND

RECEIVED

2011 DEC 28 P 12:37

\_\_\_\_\_) )  
IN THE MATTER OF ) )

HUBBARD-HALL INC. ) )

100 Progress Way ) )  
Wilmington, MA 01887 ) )  
Respondent ) )

Proceeding under Section 113(d) of the ) )  
Clean Air Act, ) )  
42 U.S.C. § 7413(d) ) )  
\_\_\_\_\_)

Docket No:

CAA-01-2011-0129

EPA ORC  
OFFICE OF  
REGISTRATION CLERK

**CONSENT AGREEMENT AND FINAL ORDER**

Complainant, the United States Environmental Protection Agency ("EPA"),  
having filed a Complaint and Notice of Opportunity for Hearing ("Complaint") against  
Respondent, Hubbard-Hall Inc., 100 Progress Way, Wilmington, MA ("Respondent" or  
"Hubbard-Hall"), the Parties herein, on September 30, 2011;

Respondent having received an extension to file an Answer and Request for  
Hearing until December 2, 2011 and having timely requested a further extension to  
December 31, 2011; and

Complainant and Respondent having agreed that settlement of this matter is in the  
public interest and that entry of this Consent Agreement and Final Order ("CAFO")  
without further litigation is the most appropriate means of resolving this matter;

NOW, THEREFORE, before the taking of any testimony, upon the pleading, without adjudication of any issue of fact or law, and upon consent and agreement of the Parties, it is hereby Ordered and Adjudged as follows:

### **STATUTORY AND REGULATORY AUTHORITY**

1. This CAFO resolves an administrative action for the assessment of monetary penalties and other relief brought pursuant to Section 113(d) of the Clean Air Act (“CAA”), 42 U.S.C. § 7413(d); and the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, Issuance of Compliance or Corrective Action Orders, and the Revocation, Termination or Suspension of Permits, 40 C.F.R. Part 22.

2. EPA’s Complaint alleged that Respondent failed to submit a risk management plan (“RMP”) for hydrofluoric acid (50% or greater) before using it in a process in an amount that exceeded the regulatory threshold, in violation of Section 112(r) of the CAA, 42 U.S.C. § 7412(r), and its implementing regulations at 40 C.F.R. Part 68.

### **TERMS OF SETTLEMENT**

3. The provisions of this CAFO shall apply to and be binding on the Parties, their officers, directors, agents, servants, employees, successors and assigns.

4. Respondent stipulates that EPA has jurisdiction over the subject matter alleged in the Complaint and that the Complaint states a claim upon which relief can be granted against Respondent. Respondent waives any defenses it might have as to

jurisdiction and venue, and without admitting or denying the factual and legal allegations contained in the Complaint, consents to the terms of this CAFO.

5. Respondent hereby waives its right to a judicial or administrative hearing on any issue of law or fact set forth in the Complaint and waives its right to appeal the Final Order.

6. Respondent certifies that it is currently operating and will operate the Facility described in paragraph 13 of the Complaint in compliance with the CAA, and the federal regulations promulgated thereunder.

#### **Supplemental Environmental Project**

7. Respondent shall complete the following Supplemental Environmental Project (“SEP”), which the parties agree is intended to secure significant environmental or public health protection and improvements. Not more than **sixty (60)** days after the date that this CAFO becomes final as set forth in paragraph 33 below, Respondent shall purchase directly the items of hazardous atmosphere detection equipment as follows, and then donate that equipment to the Wilmington, Massachusetts, Fire Department:

- (i) QRAE II (multi-gas detector diffusion or pump for O<sub>2</sub>, combustibles and CO);
- (ii) AutoRAE Lite Station (automated bump and calibration station for QRAE II);
- (iii) ToxiRae II (personal gas monitor).

Respondent has already provided to EPA a sales order reflecting the equipment and estimates of its cost. Respondent shall also provide the Fire Department with initial training in the use of this equipment as reflected on the aforesaid sales order. Exhibit A, which is incorporated herein by reference, contains a description of the aforesaid equipment and training as well as the costs of the SEP.

8. The total expenditure for the SEP shall be not less than Ten Thousand Eight Hundred Eighty-Seven Dollars (\$10,887), in accordance with the specifications set forth in Exhibit A. Respondent shall include documentation of the expenditures made in connection with the SEP as part of the SEP Completion Report described below.

9. With regard to the SEP, Respondent certifies the truth and accuracy of each of the following:

a. that, as of the date of executing this CAFO, Respondent is not required to perform or develop the SEP by any federal, state, or local law or regulation and is not required to perform or develop the SEP by agreement, grant, or as injunctive relief awarded in any other action in any forum. Respondent specifically certifies as follows:

It is not a party to any open federal financial assistance transaction that is funding or could be used to fund the same activity as the SEP. To the best of Respondent's knowledge and belief after reasonable inquiry, there is no such open federal financial transaction that is funding or could be used to fund the same activity as the SEP, nor has the same activity been described in an unsuccessful federal financial assistance transaction proposal submitted to EPA within two years of the date of this settlement (unless the project was barred from funding as statutorily ineligible). For the purposes of this certification, the term "open federal financial assistance transaction" refers to a grant, cooperative agreement, loan, federally-guaranteed loan guarantee or other mechanism for providing federal financial assistance whose performance period has not yet expired.

b. that the SEP is not a project that Respondent was planning or intending to construct, perform, or implement other than in settlement of the claims resolved in this CAFO;

c. that Respondent has not received and will not receive credit for the SEP in any other enforcement action; and

d. that Respondent will not receive any reimbursement for any portion of the SEP from any other person.

10. Respondent shall submit a SEP Completion Report to EPA within 90 days after the date this CAFO becomes final as set forth in paragraph 33 below. The SEP Completion Report shall contain the following information:

- (i) A detailed description of the SEP as implemented;
- (ii) A description of any operating problems encountered and the solutions thereto;
- (iii) Itemized costs, documented by copies of purchase orders and receipts, canceled checks, or wire transfer records; and
- (iv) Certification that the SEP has been fully implemented pursuant to the provisions of this CAFO.

11. Respondent agrees that failure to submit the SEP Completion Report shall be deemed a violation of this CAFO and Respondent shall become liable for stipulated penalties pursuant to paragraph 17 below.

12. Respondent shall submit all notices and reports required by this CAFO, by first class mail, to:

Joanna Jerison, Legal Enforcement Manager  
Office of Environmental Stewardship, Mail Code OES-04-2  
U.S. Environmental Protection Agency, Region 1  
5 Post Office Square, Suite 100  
Boston, Massachusetts 02109

13. In itemizing its costs in the SEP Completion Report, Respondent shall clearly identify and provide acceptable documentation for all eligible SEP costs. Where

the SEP Completion Report includes costs not eligible for SEP credit, those costs must be clearly identified as such. For purposes of this paragraph, “acceptable documentation” includes invoices, purchase orders, or other documentation that specifically identifies and itemizes the individual costs of the goods and/or services for which payment is being made. Canceled drafts do not constitute acceptable documentation unless such drafts specifically identify and itemize the individual costs of the goods and/or services for which payment is being made.

14. In all documents or reports, including, without limitation, any SEP reports, submitted to EPA pursuant to this CAFO, Respondent shall, by its officers, sign and certify under penalty of law that the information contained in such document or report is true, accurate, and not misleading by signing the following statement:

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

15. After receipt of the SEP Completion Report described in paragraph 10 above, EPA will notify the Respondent, in writing: i) identifying any deficiencies in the SEP Completion Report itself and granting Respondent an additional thirty (30) days to correct any deficiencies; or (ii) indicating that the project has been completed satisfactorily; or (iii) determining that the project has not been completed satisfactorily and seeking stipulated penalties in accordance with paragraph 17 herein.

16. If EPA elects to exercise option (i) in Paragraph 15 immediately above, i.e., if the SEP Completion Report is determined to be deficient but EPA has not yet made a final determination about the adequacy of SEP completion itself, Respondent may object in writing to the notification of deficiency given pursuant to this paragraph within ten (10) days of receipt of such notification. EPA and Respondent shall have an additional thirty (30) days from the receipt by EPA of the notification of objection to reach agreement on changes necessary to the SEP Completion Report. If agreement cannot be reached on any such issue within this thirty (30) day period, EPA shall provide a written statement of its decision on adequacy of the completion of the SEP to Respondent, which decision shall be final and binding upon Respondent. Respondent agrees to comply with any requirements imposed by EPA as a result of any failure to comply with the terms of this CAFO. In the event the SEP is not completed as contemplated herein, as determined by EPA, stipulated penalties shall be due and payable by Respondent to EPA in accordance with paragraph 17 herein.

17. In the event that Respondent fails to comply with any of the terms or provisions of this CAFO relating to the performance of the SEP described in Exhibit A and in paragraph 7 above and/or to the extent that the actual expenditures for the SEP do not equal or exceed the cost of the SEP described in paragraph 8 above, Respondent shall be liable for stipulated penalties according to the provisions set forth below:

- (i) For a SEP which has not been completed satisfactorily pursuant to this CAFO, Respondent shall pay a stipulated penalty to the United States in the amount of \$15,000 plus interest;



(ii) If the SEP is completed satisfactorily pursuant to this CAFO, but the Respondent spent less than \$10,887, Respondent shall pay a stipulated penalty to the United States in the amount of one dollar, plus accrued interest, for every one dollar less than \$10,887 expended by Respondent.

(iii) For failure to submit the SEP Completion Report required by paragraph 10, above, Respondent shall pay a stipulated penalty in the amount of \$200 for each day the SEP report is late.

18. The determination of whether the SEP has been satisfactorily completed shall be in the sole discretion of EPA.

19. Stipulated penalties as set forth in paragraph 17 above shall begin to accrue on the day after performance is due and shall continue to accrue through the final day of the completion of the activity.

20. Respondent shall pay stipulated penalties not more than fifteen (15) days after receipt of written demand by EPA for such penalties. Method of payment shall be as follows: Respondent shall submit a certified or cashier's check **payable to the order of the "Treasurer, United States of America," referencing the case name and docket numbers of this action on the face of the check,** to:

U.S. Environmental Protection Agency  
Fines and Penalties  
Cincinnati Finance Center  
P.O. Box 979077  
St. Louis, MO 63197-9000;

Respondent shall provide copies of the check to:

Ms. Wanda Santiago  
Regional Hearing Clerk  
U.S. Environmental Protection Agency, Region 1

Suite 100, Mail Code ORA18-1  
5 Post Office Square  
Boston, MA 02109-3912

and

Joanna Jerison  
Legal Enforcement Manager  
U.S. Environmental Protection  
Agency, Region 1, Suite 100, Mail Code OES042  
5 Post Office Square  
Boston, MA 02109-3912

Interest and late charges shall be paid as stated in paragraph 21 below.

21. Pursuant to 31 U.S.C. § 3717, EPA is entitled to assess interest and penalties on debts owed to the United States and a charge to cover the cost of processing and handling a delinquent claim.

22. Any public statement, oral or written, in print, film, or other media, made by Respondent making reference to the SEP shall include the following language: "This project was undertaken in connection with the settlement of an enforcement action taken by the U.S. Environmental Protection Agency for violations of the Clean Air Act."

23. For federal income tax purposes, Respondent agrees that it will neither capitalize into inventory or basis nor deduct any costs or expenditures incurred in performing the SEP. Respondent hereby waives any confidentiality right it has under 26 U.S.C. § 6103 with respect to such SEP costs on its tax return and on the information supporting its tax return. This waiver of confidentiality is solely as to EPA and the Department of Justice and solely for the purpose of ensuring the accuracy of Respondent's SEP cost certification.

**Civil Penalty**

24. Pursuant to Section 113(e) of the CAA, 42 U.S.C. § 7413(e), and taking into account the relevant statutory penalty criteria, the facts recounted in this CAFO, the SEP described above, and such other circumstances as justice may require, EPA has determined that it is fair and proper to assess a civil penalty of Forty-eight Thousand Ninety Dollars (\$48,090) for the violation alleged in the Complaint.

25. The penalty amount of \$48,090 must be paid in full within thirty (30) calendar days of the effective date of this CAFO. In accordance with 40 C.F.R. § 22.31(b), the effective date is the date on which this CAFO is filed with the Regional Hearing Clerk.

26. Respondent shall make payment by submitting a certified or cashier's check **payable to the order of the "Treasurer, United States of America,"**  
**referencing the case name and docket number of this action on the face of the check,**

to:

U.S. Environmental Protection Agency  
Fines and Penalties  
Cincinnati Finance Center  
P.O. Box 979077  
St. Louis, MO 63197-9000;

Respondent shall provide copies of the check to:

Wanda Santiago  
Regional Hearing Clerk  
U.S. Environmental Protection Agency, Region 1  
5 Post Office Square, Suite 100  
Mail Code ORA18-1  
Boston, MA 02109-3912

and

Joanna Jerison  
Legal Enforcement Manager  
U.S. Environmental Protection Agency, Region 1  
5 Post Office Square, Suite 100  
Mail Code OES04-2  
Boston, MA 02109-3912

27. In the event that the civil penalty is not paid when due without demand, pursuant to Section 113(d)(5) of the CAA, Respondent will be subject to an action to compel payment, plus interest, enforcement expenses, and a nonpayment penalty. Interest will be assessed on the civil penalty if it is not paid when due. In that event, interest will accrue from the due date at the "underpayment rate" established pursuant to 26 U.S.C § 6621(a)(2). In the event that a penalty is not paid when due, an additional charge will be assessed to cover the United States' enforcement expenses, including attorneys fees and collection costs. In addition, a quarterly nonpayment penalty will be assessed for each quarter during which the failure to pay the penalty persists. Such nonpayment penalty shall be 10 percent of the aggregate amount of Respondent's outstanding civil penalties and nonpayment penalties hereunder accrued as of the beginning of such quarter. In any such collection action, the validity, amount, and appropriateness of the penalty shall not be subject to review.

28. The civil penalty under this CAFO, and any interest, nonpayment penalties, and charges described in this CAFO, shall represent penalties assessed by EPA and shall not be deductible for purposes of federal taxes. Accordingly, Respondent agrees to treat all payments made pursuant to this CAFO as penalties within the meaning of 26 C.F.R. § 1.162-21, and further agrees not to use these payments in any way as, or in furtherance of, a tax deduction under federal, state or local law.

29. This CAFO constitutes a settlement by EPA of all claims for civil penalties pursuant to Section 113(d) of the CAA for the violation alleged in the Complaint. Compliance with this CAFO shall not be a defense to any other actions subsequently commenced pursuant to federal laws and regulations administered by EPA for matters not addressed in the Complaint or this CAFO, and it is the responsibility of Respondent to comply with all applicable provisions of federal, state, or local law. Nothing in this CAFO is intended to resolve any criminal liability of the Respondent, and EPA reserves all its other criminal and civil enforcement authorities, including the authority to seek injunctive relief and the authority to address imminent hazards.

30. Nothing in this agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this CAFO or of the statutes and regulations upon which the Complaint and this CAFO is based, or for Respondent's violation of any applicable provision of law.

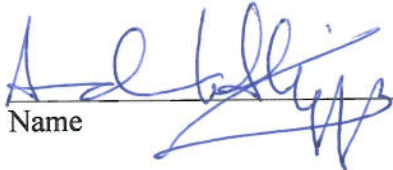
31. This CAFO shall not relieve Respondent of its obligations to comply with all applicable provisions of federal, state, or local law; nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state, or local permit.

32. The parties shall bear their own costs and fees in this action, including attorney's fees, and specifically waive any right to recover such costs from the other party pursuant to the Equal Access to Justice Act, 5 U.S.C § 504, or other applicable laws.

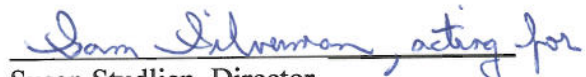
33. In accordance with 40 C.F.R. § 22.31(b), the effective date of this CAFO is the date on which this CAFO is filed with the Regional Hearing Clerk.

34. The undersigned representative of the Respondent certifies that he or she is fully authorized to enter into the terms and conditions of this CAFO and to execute and legally bind Respondent to it.

FOR RESPONDENT HUBBARD-HALL INC.

  
Name \_\_\_\_\_ Title President/CEO  
12/20/2011  
Date


FOR U.S. ENVIRONMENTAL PROTECTION AGENCY

  
Susan Studlien, Director  
Office of Environmental Stewardship  
U.S. EPA, Region 1

12-22-11  
Date

**FINAL ORDER**

The foregoing Consent Agreement is hereby approved and incorporated by reference into this Final Order. The Respondent is hereby ordered to comply with the terms of the above Consent Agreement, effective on the date it is filed with the Regional Hearing Clerk.

  
\_\_\_\_\_  
LeAnn Jensen  
Acting Regional Judicial Officer

12/27/11  
Date

QUOTE ORDER



**Industrial Protection Services, LLC**

P.O. Box 685 • 220 Ballardvale Street • Wilmington, Massachusetts 01887  
 Tel: 978-657-4740 • Fax: 978-658-0257 • www.ipp-ips.com

SALES ORDER	
101816-00	
DATE	PAGE #
10/14/11	1

**Bill To:**

Wilmington Fire Dept  
 1 Adelaide St  
 Wilmington, MA 01887

**Ship To:**

Wilmington Fire Dept  
 1 Adelaide St  
 Wilmington, MA 01887

CUSTOMER P.O.		TERMS	SHIP VIA				SALES REP	
Rae quote		Net 30	UPS Ground				HA	
LN	ITEM # / DESCRIPTION	ORD	UM	B/O	SHIP	PRICE	AMOUNT	
1	020-1111-2A0 Monitor, Qrae II 4 gas w/pump	4	ea			718.00	2872.00	
2	020-0040-020 Kit, Confined Space QRae II	4	ea			634.00	2536.00	
3	T01-0001-000 Cal Station, QRae II auto bump test	1	ea			1334.00	1334.00	
4	045-0517-000 Toxirae II, HCN	3	ea			379.00	1137.00	
5	600-0057-00 Cal Gas, Hydrogen Cyanide, ToxiRae	1	ea			303.00	303.00	
6	600-0050-007 Cal Gas, 4Gas Mix QRae II	3	ea			245.00	735.00	
7	600-0050-007 Cal Gas, 4Gas Mix QRae II	6	ea			245.00	1470.00	
8	TRAINING Training	1	ea			500.00	500.00	
Total Invoice						Total	10887.00	
Total							10887.00	



# QRAE II

Multi-gas Detector Diffusion or Pump for O<sub>2</sub>, Combustibles, H<sub>2</sub>S or CO



The QRAE II is a full-featured, compact, one- to four-sensor gas detector for oxygen, combustibles, hydrogen sulfide or carbon monoxide. Key features include easy-to-change battery pack, a water-resistant case and a new state-of-the-art O<sub>2</sub> sensor.

## Key Features

- Patented SPE O<sub>2</sub>™ Oxygen sensor unique features:
  - Lead-free design that complies with RoHS directive
  - Extended life compared to lead-type electrochemical oxygen sensors, resulting in low cost of ownership
  - Leak-free design, minimizing downtime
- Best EMI/RFI immunity technology for products in its class, minimizing electromagnetic and radio interference
- Easy access to pump, sensors, filter and battery compartment without exposing electronic components to potential damage
- IP-65 water- and dust-resistant case
- Strong, protective, concussion-proof design



QRAE II Pump being used for a confined space entry

Pump or diffusion models available

Cradle enables communications with PC and can charge both the monitor and a spare battery at the same time

Rugged housing

Large graphic display can be flipped 180° with a push of a button for convenient viewing from belt or hand

Rechargeable Lithium-ion battery pack provides up to 14 hours of continuous operation



SPE O<sub>2</sub>™ sensor designed to meet RoHS directive



Both diffusion and pump models are compatible with the AutoRAE Lite, Automated Test and Calibration Station.

## Additional Advantages

- Plug-in sensors: oxygen, combustibles, hydrogen sulfide or carbon monoxide
- Intuitive simple-to-operate two-button user interface
- Display can be flipped 180° with the push of a button for easy viewing from belt or hand
- Multi-language support
- One-button calibration with auto-zero capability
- Loud 95dB (typical) audible alarm
- Bright, red flashing visible alarm
- Vibration alarm
- Interchangeable drop-in Lithium-ion or alkaline battery packs



IECEX ATEX



# QRAE II

## Specifications

### Detector Specifications\*

Size	Diffusion: 5" L x 2.8" W x 1.5" H (12.5cm x 7.2cm x 3.8cm) Pump: 5" L x 2.8" W x 2" H (12.5cm x 7.2cm x 5.0cm)
Weight	Diffusion: 9 oz (250 g) Pump: 12 oz (350 g)
Sensors	<ul style="list-style-type: none"> <li>Catalytic bead for combustibles</li> <li>Oxygen: SPE O<sub>2</sub><sup>™</sup> (non-consumable Solid Polymer Electrolyte technology)</li> <li>Toxic: electrochemical for H<sub>2</sub>S or CO</li> </ul>
Battery	Interchangeable Lithium-ion or alkaline battery packs
Operating Period	Diffusion: Up to 14 hours continuous operation with Lithium-ion battery, up to 10 hours with alkaline battery (typical, without alarm) Pump: Up to 10 hours with Lithium-ion battery, up to 8 hours with alkaline battery
Display Graphic	4 lines, with LED automatic back light in dim light or alarm condition
Keypad	Two-button operation
Direct Readout	<ul style="list-style-type: none"> <li>Instant reading from up to four sensors</li> <li>Oxygen as percentage by volume</li> <li>Combustible gas as percentage of lower explosive limit (LEL), scalable using correction factors</li> <li>Toxic gases in parts per million</li> <li>High and low values for all gases</li> <li>Battery and shutdown voltage</li> <li>Date, time, elapsed time, temperature</li> </ul>
Alarms	<ul style="list-style-type: none"> <li>95dB buzzer (at 30 cm, typical), vibration alarm, and flashing red LED</li> <li>High: 3 beeps, vibration and flashes per second</li> <li>Low: 2 beeps, vibration and flashes per second</li> <li>STEL and TWA: 1 beep, vibration and flash per second</li> <li>Alarms: latching with manual override or automatic reset</li> <li>Additional diagnostic alarm and display message for low battery</li> <li>Pump stall alarm (QRAE II Pump only)</li> </ul>
EMI/RFI	Highly resistant to EMI/RFI. Compliant with EMC directive 2004/108/EC additional +60 volts/meter
IP Rating	IP-65
Datalogging	Standard 12 days at one-minute intervals
Calibration	Two-point calibration for zero and span (manual, or automatic with the AutoRAE Lite)
Sampling Pump	Optional, internal pump 300 cc/min
Hazardous Area Approval	<ul style="list-style-type: none"> <li>US and Canada: cULus Cl, D1, Groups A, B, C, D, T4</li> <li>Europe: ATEX II 2G EEx ia d IIc T4</li> <li>IECEX: Ex ia d II C T4</li> </ul>
Temperature	-4° to 113° F (-20° to 50° C) for T4 temperature code
Humidity	0% to 95% relative humidity (non-condensing)
Attachments	Stainless-steel alligator clip
Warranty	Full 2-year warranty, including all sensors

\*Specifications are subject to change

[www.raesystems.com](http://www.raesystems.com)

### Default Sensor Specifications\*

Gas Monitor	Range	Resolution
Oxygen	0 to 30.0%	0.1%
Combustible	0 to 100% LEL	1% LEL
Carbon Monoxide	0 to 1000 ppm	1 ppm
Hydrogen Sulfide	0 to 100 ppm	0.1 ppm

\*Consult RAE Systems for custom configurations

## QRAE II Ordering Options

### QRAE II Monitor Includes:

- Monitor as specified
- Sensors as specified
- Calibration adapter and internal filters (diffusion only)
- Quick reference guide
- User manual and ProRAE Studio Software Package for Windows® 2000, NT and XP on CD-ROM
- Alkaline adapter
- Water trap filter (pump only)
- Rechargeable versions additionally offer:
  - Charging/download cradle with computer interface cable
  - Universal adapter
  - Lithium-ion battery pack

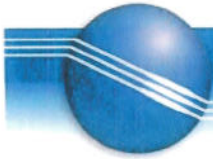
### Confined Space Entry Kit for Pump and Diffusion Models (CSK1) (CSK2)

- Hard transport case with pre-cut foam
- 6' (2 m) Tygon® tubing
- 10" (25cm) stiff aluminum sample probe with replaceable filter
- Constant-flow hand pump
- Tool Kit
- Three water trap filters
- CSK2 versions additionally offer:
  - Four-gas mix in a 34L cylinder (50% LEL, 18% O<sub>2</sub>, 10 ppm H<sub>2</sub>S, 50 ppm CO)
  - Calibration regulator and tubing

RAE Systems Inc.  
3775 North First Street  
San Jose, CA 95134 USA  
raesales@raesystems.com

USA/Canada 1-877-723-2878  
Europe/Russia +45 8652 5155  
Middle East/Australia +971 4 3639 427  
China +86 10 58858788  
Asia +852 2669 0828





# ToxiRAE II

## Personal Gas Monitor

### A full-featured instrument for the price of a disposable

The ToxiRAE II single-gas monitor continuously displays toxic gas concentrations and costs just a little more than disposable detectors. Unlike typical disposables that only display remaining life, the ToxiRAE II is a full-featured gas monitor providing continuous, digital display of the gas concentration, STEL, TWA and peak values as well as high, low, TWA and STEL alarms.

A simple-to-use one-button product, the ToxiRAE II is easy to calibrate. Use the preset alarms or modify the alarms to meet your specific requirements.

In contrast to disposables that are turned on once and remain on until their batteries expire, you decide when and where to use your ToxiRAE II, and you turn it on and off accordingly.

The ToxiRAE II does not have a pre-programmed expiration date, so you get the full life out of the battery and sensor. Its sensor and battery are easily replaced in the field. And because the cost of the ToxiRAE II is about the same as many reduced-feature disposables, you have the choice of renewing it or disposing of it and starting with a fresh, new monitor.



Actual Size

### Applications

- Oil production
- Contractors
- Scheduled plant maintenance turnarounds
- Chemical plants
- Fire service
- Industrial safety
- Pulp & paper
- Heavy industry
- Waste-water treatment plants
- Shipyards and maritime
- Landfill operations
- Trenches, silos, railcars
- Power plants
- Steel mills

### Key Features

- IP Rating: IP 65\*
- Field-replaceable filter, battery
- Field-replaceable sensor in Europe and Asia only
- Highly resistant to EMI/RFI. Compliant with EMC Directive 89/336/EEC, +60 volts/meter
- Sensors available: H<sub>2</sub>S, CO, O<sub>2</sub>, NH<sub>3</sub>, Cl<sub>2</sub>, ClO<sub>2</sub>, HCN, NO, NO<sub>2</sub>, PH<sub>3</sub>, SO<sub>2</sub>
- Stainless-steel corrosion-resistant alligator clip

### More Key Features

- Large, easy-to-read continuous display of gas concentration in ppm
- Displays STEL, TWA, peak values, and alarm minutes used
- 2-year warranty
- User-adjustable High, Low, STEL and TWA alarms
- Varying audio alarm signals for different alarm conditions
- Bright red flashing alarm
- Loud, 90 dB buzzer
- Built-in vibration alarm
- Holds Peak values
- Simple calibration
- Durable, highly impact-resistant, carbon-loaded ABS housing
- Highly resistant to RF interference
- Hands-free use: clips onto a hardhat, shirt pocket, shoulder strap, or belt

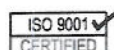
\* Expected

ver4\_04.07

[www.raesystems.com](http://www.raesystems.com)

IECEX

ATEX



# ToxiRAE II

## Specifications\*

### Detector Specifications

Size	3.6" x 1.9" x 0.9" (9.3 cm x 4.9 cm x 2.2 cm)
Weight	3.6 oz (102 g) with clip
Battery	User-replaceable 2/3 AA high-capacity Lithium battery (use only RAE Systems batteries). Extra battery included for use if maximum alarm minutes are exceeded.
Operating Period	2 years typical battery life for CO/H <sub>2</sub> S/O <sub>2</sub> sensors or 730 minutes of alarm. All other low- or high-bias sensor-equipped models, typical 1 year or 360 minutes of alarm.
Display	Easy-to-read LCD for continuous display of concentration in ppm and text messages
Keypad	One-button operation
Direct Readout	<ul style="list-style-type: none"> <li>Instantaneous display of toxic gas concentration in ppm (or oxygen in vol %)</li> <li>STEL &amp; TWA values</li> <li>Peak hold</li> <li>Alarm minutes consumed</li> </ul>
Alarms	<ul style="list-style-type: none"> <li><b>Audible:</b> 90dB at 10 cm</li> <li><b>Visible:</b> Bright red/green LED bar visible from top, front, and sides</li> <li><b>Sensory:</b> Built-in vibration alarm</li> <li><b>High:</b> Displays "High," emits 3 beeps and flashes every 3 seconds</li> <li><b>Low:</b> Displays "Low," 2 beeps and flash every 3 seconds</li> <li><b>STEL:</b> Displays "STEL," 1 beep and flash every 3 seconds</li> <li><b>TWA:</b> Displays "TWA," 1 beep and flash every 3 seconds</li> <li><b>Low battery:</b> Displays empty battery symbol, 1 beep per minute</li> </ul>
Calibration	Two-point field calibration; auto-zero at startup, user-initiated span/standard reference gas
Temperature	-40° to 131° F (-40° to 55° C) for O <sub>2</sub> , CO, and H <sub>2</sub> S. Other toxic sensors are similar, for specific temperature ranges for other sensors, please reference RAE Systems Tech Note TN-114
Humidity	0 to 95% relative humidity (non-condensing)
EMI/RFI	Highly resistant to EMI/RFI. Compliant with EMC Directive 89/336/EEC
IP Rating	IP-65: protected against dust, protected against low-pressure jets of water from all directions
Hazardous Area Approval	<ul style="list-style-type: none"> <li>UL/cUL Classified as Intrinsically Safe for use in Class I Division 1, Groups A, B, C, D</li> <li>Hazardous Locations T5 rating (UL/cUL, ATEX)</li> <li>ATEX, II 1G, EEx ia IIB T5, or II 2G, EEx ia IIC T5</li> <li>CE Mark, European Conformity</li> <li>IECEX Ex ia IIC T4</li> </ul>
Attachments	Wrist strap, stainless steel alligator clip (installed), stainless steel belt clip/hardhat adapter
Warranty	2-year warranty for instruments with CO/H <sub>2</sub> S/O <sub>2</sub> sensors (all other sensors have 1-year warranty)

\*Specifications are subject to change

### Default Sensor Settings

Gas	Range (ppm)	Resolution (ppm)
Ammonia (NH <sub>3</sub> )	0 to 50	1
Carbon Monoxide (CO)	0 to 500	1
Carbon Monoxide (CO)	0 to 1999	10
Chlorine (Cl <sub>2</sub> )	0 to 10	0.1
Chlorine Dioxide (ClO <sub>2</sub> )	0 to 1	0.01
Hydrogen Cyanide (HCN)	0 to 100	1
Hydrogen Sulfide (H <sub>2</sub> S)	0 to 100	1
Nitric Oxide (NO)	0 to 250	1
Nitrogen Dioxide (NO <sub>2</sub> )	0 to 20	0.1
Oxygen (O <sub>2</sub> )	0 to 30%	0.1%
Phosphine (PH <sub>3</sub> )	0 to 5	0.01
Sulfur Dioxide (SO <sub>2</sub> )	0 to 20	0.1

Sensors are not interchangeable.

### ToxiRAE II Monitor includes:

- ToxiRAE II detector with sensor as specified
- Operation and maintenance manual
- Rugged stainless-steel alligator clip (installed)
- Stainless-steel belt clip / hardhat adapter
- Wrist strap
- Calibration gas test adapter
- High-capacity Lithium battery installed

### Optional Accessories

- Protective rubber boot



DISTRIBUTED BY:

ver4\_04.07

RAE Systems Inc.	USA/Canada	1-877-723-2878
3775 North First Street	Europe/Russia	+45 8652 5155
San Jose, CA 95134 USA	Middle East/Australia	971 50 429 1385
raesales@raesystems.com	China	8610 58858788
	Asia	+852 2669 0828

[www.raesystems.com](http://www.raesystems.com)



# AutoRAE Lite Station

AutoRAE Lite automated bump and calibration station for QRAE II



The AutoRAE Lite high-speed, low-operating-cost bump test and calibration station stores data in a text file that can be opened by any spreadsheet software or text editor. In addition, the AutoRAE Lite operates on a low-pressure system with a built-in pump.

12-second bump test

2-minute calibration

Configures gas monitor

Full documentation storage

Portable with battery option

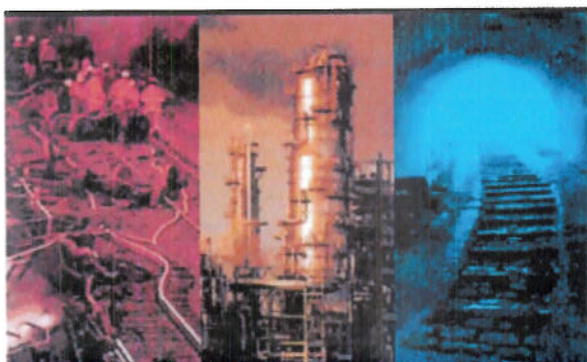
Demand-flow system  
eliminates accidental leaks

## Key Features

- Fully automated bump and calibration
- Bump test in 12 seconds
- Full calibration in 2 minutes
- Tamper-proof data files
- Optional battery operation
- Configures monitor
- "No gas flow" alarm
- Demand-flow system



*Calibrating QRAE II  
with AutoRAE Lite  
Bump Test and  
Calibration Station*



ISO 9001  
CERTIFIED

**RAE**  
SYSTEMS

# AutoRAE Lite Station

## Specifications

### Detector Specifications\*

<b>Certifications</b>	CE
<b>Sensor</b>	Light and sound sensors
<b>Data Storage</b>	Text files (format can be opened by any spreadsheet software or text editor), saved daily for: 1. Bump tests 2. Calibrations 3. Alarms Tamper-proof
<b>Bump Test Time</b>	12 seconds
<b>Bump Test Gas Usage</b>	70 cm <sup>3</sup>
<b>Calibration Time</b>	2 minutes
<b>Calibration Gas Usage</b>	300 cm <sup>3</sup>
<b>Pneumatic System</b>	Demand-flow regulator Built-in pump "No gas flow" alarm
<b>Power Supply</b>	Universal power cord or battery pack
<b>Operating Temperature</b>	+14° F to +122° F (-10° C to +50° C)
<b>Humidity</b>	10% to 90% relative humidity, non-condensing
<b>Dimensions</b>	15" L x 12.5" W x 6.5" H (38cm x 32cm x 17cm)
<b>Weight</b>	8.56 lbs (3.9 kg)

\*Specifications are subject to change

### AutoRAE Lite includes:

- AutoRAE Lite as specified
- USB cable for PC setup
- Universal power supply
- Demand-flow regulator
- SD memory card, minimum 512Mb
- Quick-start guide
- Inlet filter
- Diffusion adapter
- CD includes:
  - Operation manual
  - Drivers
  - Utility software

## Ordering Information

### Part Numbers

#### AutoRAE Lite

Bump Test and Calibration Station for QRAE II	T01-0001-000
Bump Test and Calibration Station for ToxiRAE 3	T01-0100-000

**Toll-Free: 877-723-2878**

[www.raesystems.com](http://www.raesystems.com)

RAE Systems Inc.  
3775 North First Street  
San Jose, CA 95134 USA  
raesales@raesystems.com

USA/Canada 1-877-723-2878  
Europe/Russia +45 8652 5155  
Middle East/Australia +971 4 3639 427  
China +86 10 58858788  
Asia +852 2669 0828



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1

\_\_\_\_\_)  
IN THE MATTER OF: )  
) Docket Nos: CAA-01-2011-0129  
HUBBARD-HALL, INC., )  
100 Progress Way )  
Wilmington, MA )  
)  
Respondent )  
\_\_\_\_\_)

**CERTIFICATE OF SERVICE**

I hereby certify that the foregoing Consent Agreement and Final Order in this matter has been sent to the following persons in the manner and on the date noted below:

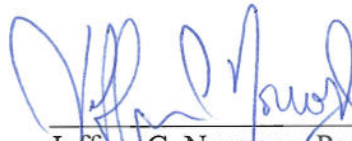
Original and One Copy  
(Hand-Delivered):

Wanda I. Santiago, Regional Hearing Clerk  
U.S. Environmental Protection Agency, Region 1  
5 Post Office Square, Suite 100  
Mail Code ORA18-1  
Boston, MA 02109-3912

One Copy  
(Regular Mail):

Andrew J. Skipp, President  
Hubbard-Hall, Inc.  
563 South Leonard Street  
Waterbury, CT 06720

Dated: 12/28/2011

  
\_\_\_\_\_  
Jeffrey C. Norcross, Paralegal  
U.S. Environmental Protection Agency, Region 1  
5 Post Office Square, Suite 100  
Mail Code OES04-4  
Boston, MA 02109-3912  
(617) 918-1839