

Vermont Department of Health Laboratory  
Toxicology Program  
Memorandum

To: Mary Celotti, Laboratory Director  
From: Robert Drawbaugh, Toxicology Program Chief  
Date: April 13, 2006  
Re: Breath Test Instrumentation

A purchase requisition and instrument specifications are provided with this memo. This purchase is not anticipated to encumber the full amount of funds available but we will also need to purchase printers and simulators with a security enclosure which will likely require a large portion of the remaining funds. Once the instrument purchase is decided and placed, we will also need to purchase maintenance and repair item, additional operating supplies, and training items. We should ask for a minimum bid turn-around time for these since all the vendors know that this is coming and we are pressed for time to encumber the money. Thanks for your help in moving this forward.

Approve M.C. 4/14/06



## Breath Alcohol Test Instrumentation Purchase Specifications\*

### General Specifications:

Model provided must be approved by the USDOT National Highway Traffic Safety Administration for use as an evidential breath alcohol testing device

One year manufacturer's warranty for parts and labor

One year software support for change of security codes, test sequence, test record format and test data display and document printing format

Shipping and delivery costs included in quoted price

All units to be delivered within 120 days of purchase order

Manufacturer will provide a minimum of 2 days of on-site training for operation, maintenance and basic repair within 90 days of the first delivery of units

### Physical Specifications:

Maximum footprint 24" x 24"

Maximum Unit weight: 25 lbs.

Operational with either AC or DC power

Power requirements: 115VAC  $\pm$  5VAC / 60 Hz and 12 VDC

External printer capable; USB connection; HP-PCL capable

USB/PS2 keyboard

magnetic strip card reader capable

Liquid Crystal Display with ability to display: real time alcohol concentration during testing process; real time breath flow rate and volume; real time simulator temperature display; barometric pressure; detector voltage; instrument status checks, eg. heated zone temperatures, internal standard check result; data value vs time plot for all of the above

Heated breath and simulator vapor delivery tubes

Capability for both wet bath and dry gas calibration and test sequence calibration checks

1 RS-232 communications port

1 communications port for monitoring attached simulator temperature

1 USB port assigned for data transfer to external computer

2 unassigned USB ports for future additions

## Breath Alcohol Test Instrumentation Purchase Specifications ( continued)

1 high speed modem for data transfer via telephone lines

1 ethernet communications port

infrared-based analytical technology for both qualitative and quantitative determination of ethanol vapor; including at least 3 filters at appropriate wavelengths to identify potentially interfering substances

CPU operating at 128 MHz or faster

Operating software with complete documentation/ description of analytical algorithms available, with legal protections, for support of defense against legal challenges

Software capable of providing at least 4 levels of security defining access to various instrument functions

Capability for operating sequence, data collection, and diagnostic test software updates uploaded from remote source

Capability for transferring data to standard business software packages e.g. Microsoft Office or Corel Office

### Performance Specifications:

In addition to meeting NHTSA performance criteria for evidential devices, the instrument must meet the following criteria:

Must require a minimum of 1.5 L of breath to be delivered in a single, steady exhalation for alcohol content to be reported

Breath volume for a successful test must be recorded and reported to +/- 0.1 L

Breath flow rate must be monitored and data available to print a graphic presentation of the breath flow profile

Must have a means of detecting mouth alcohol at a level of 0.02 g/210 L or greater or any other source of an apparent alcohol concentration spike occurring during the presentation of actual or simulated breath for analysis

Must report breath or simulated breath alcohol vapor concentration in g EtOH/210 L air

Must be capable of detecting and reporting the presence of potentially interfering volatile organic compounds at a level of 0.02 g/210 L, or greater, apparent alcohol concentration

Must be capable of determining the alcohol concentration of a vapor sample from a source with a known concentration to within  $\pm 5\%$ .

Must be capable of determining the concentration of replicate samples of alcohol vapor with a precision of no more than  $\pm 5\%$  from the mean of the concentration and with a standard deviation of no greater than 2%

Must be capable of displaying alcohol concentrations in the range of 0.0 to 0.60 g/210L

### Data Specifications

Instrument must be capable of collecting and storing calibration data and all monitored test data including the data from subject breath tests, supervisory/performance check tests, and diagnostic tests

System function errors or status checks which are out of control must be stored as retrievable data

System must be capable of storing test data for up to 500 tests and capable of transferring that data to an external computer through either Ethernet connection or via phone modem

Test record and report format to be determined at the time of purchase

\* does not include custom software specifications for test sequence; test record data; etc. – tbd later  
final purchase award will be based on manufacturer's ability to meet specifications provided

List of Evidential Breath Alcohol Test Instrument Vendors for possible bids

For Drager instruments:

Central Equipment Co.  
116 Cottage Ave.  
Millis, MA

OR

Drager Safety, Inc.  
Breathalyzer Div.  
185 Suttle St Suite 105  
Durango, CO

For DataMaster instruments:

National Patent Analytical Systems, Inc.  
Post Office Box 1435  
Mansfield, OH 44901

National Patent Analytical Systems, Inc.  
2090 Harrington Memorial Road  
Mansfield, OH 44903

**Phone:**

(419) 526-6727  
(800) 800-8143 toll free

**Email/Fax:**

[salesteam@npas.com](mailto:salesteam@npas.com) email  
(419) 526-9446 fax

For Intoximeter instruments:

**Intoximeters, Inc.**  
8110 Lackland Rd.  
St. Louis, MO 63114  
FAX: (314) 429-4170  
Watts:(800) 451-8639  
Local:(314) 429-4000

For Intoxylizer instruments:

CMI, Inc.

**Representative:**

Bill Collins  
Toll Free Phone: 866-835-0690  
Voice Mail: 270-685-6466  
Cell Phone: 402-699-5087  
Fax: 270-685-6678  
E-mail: [wfcollins@alcoholtest.com](mailto:wfcollins@alcoholtest.com)

JOB STATUS REPORT

TIME : 04/14/2006 08:41  
NAME : DEPT OF HEALTH LAB  
FAX# : 802-863-7632  
TEL# :  
SER.# : BROM12500444

DATE, TIME	04/14 08:39
FAX NO./NAME	4157
DURATION	00:01:37
PAGE(S)	07
RESULT	OK
MODE	STANDARD ECM



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*Agency of Human Services*

**FAX TRANSMISSION COVERSHEET**

Date:	<u>4/14/06</u>
To:	<u>Charon Goldwyn</u>
Co/Dept:	_____
Fax #:	<u>4157</u>
Sender:	<u>Stella</u>
Re:	<u>Purchase Req for Breath Test Instr</u>
Pages:	<u>7 (including cover)</u>