# RHODE ISLAND LEGAL SERVICES, INC. 56 PINE STREET FOURTH-FLOOR 7001 DEC 29 P 3PROVIDENCE, RHODE ISLAND 02903



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December 23, 2003

Mr. Brian Wagner
R.I. Department of Environmental
Management
235 Promenade Street
Providence, RI 02908

Mr. Terrence Tierney Assistant Attorney General Department of Attorney General 150 South Main Street Providence, RI 02903

Re: Environmental Tests at Springfield Street Schools

Dear Messrs Wagner and Tierney:

I am writing to request that DEM take certain actions based on the results of quarterly monitoring tests, and based on my most recent observations of environmental testing at the Springfield Street Schools in November 2003.

The plaintiffs are very concerned about the high levels of carbon dioxide found in the soil gas wells and in the sub-slab ventilation system. Levels of carbon dioxide far in excess of the action levels have been found in almost every round of tests. In the November 2003 round of testing, the action level for carbon dioxide was exceeded in 21 out of 29 soil gas wells tested, and was also exceeded in tests of the soil gas system at the elementary and middle school (back shed). The Remedial Action Work Plan for the Springfield Street Schools states that when the action levels for carbon dioxide are exceeded, "a more thorough assessment will be performed." That thorough assessment is to include the installation of additional soil gas monitoring wells and/or more extensive sampling to further define the extent and degree of the gas impacts. (Remedial Action Work Plan, Appendix C, pp. 7-8).

To date, there has been no further assessment of the extent and degree of carbon dioxide levels at the schools. The plaintiffs ask that DEM require the City to perform such an assessment. Part of that assessment should include indoor air sampling with a device that can detect lower levels of carbon dioxide than the Lantec device used by LFR, the City's environmental consultants. The Lantec device can only detect carbon dioxide in intervals of 1,000 PPM (or 0.1% by volume), the same level as the action level. There are hand held carbon dioxide monitors available that can detect carbon dioxide levels at 10 PPM with an accuracy of plus or minus 200 PPM (see attached specifications for the Inspectair CO2 Carbon Dioxide Monitor Model 8560). The use of a more sensitive

device will indicate whether there are elevated carbon dioxide levels (i.e. levels greater than 0.0314% by volume, the normal level of carbon dioxide in air) inside the school building.

The plaintiffs are concerned that elevated levels of carbon dioxide are, in fact, present in the school buildings as well as in the monitoring wells and sub-slab ventilation system; and, that these elevated levels are contributing to high incidence of headaches and stomachaches among the students. School personnel also expressed concern to LFR about the frequency of headaches and stomachaches experienced by students during the last round of monitoring. However, in the last quarterly monitoring report no mention was made that the nurse at the elementary school requested LFR to test the air in several classrooms. While LFR complied with the nurse's request the results of those tests were not reported in the latest quarterly monitoring report.

Second, the plaintiffs request that DEM order the City to repair those parts of the school grounds identified by LFR in need of repair and perform the required soil tests set forth in the Remedial Action Work Plan. The Remedial Action Work Plan requires "immediate repair" to any breach of the soil cover, and the taking of a composite soil sample for analysis for lead, arsenic and TPH after the cover is repaired. (Remedial Action Work Plan, Appendix C, p. 6). For the last three monitoring rounds LFR reported the presence of sinkholes and erosion of the clean fill protective layer. These include the catch basin and eastern wall of the north courtyard of the middle school, sinkholes and erosion by the HVAC unit on the south side of the middle school, deep holes around the western wall of the middle school near the HVAC unit and an area of exposed soil on the southern side of the middle school along the paved driveway. As of November 6, 2003 none of these areas had been repaired. There are additional areas not reported by LFR affected by sinkholes or erosion. These areas include: erosion on the hill by the rear of the elementary school; a large depression at the northwest corner of the middle school building where the paved driveway meets the curb; and bucking of the sidewalk at the entrance to the middle school building by the custodian's office due to uneven settlement of the underlying ground.

Finally, the seep area to the left of the middle school testified to by Ms. Pollock at trial has developed again. Plaintiffs are concerned that the water collecting in the seep is groundwater that has risen through the contaminated soil as a result of the recent heavy rains. Plaintiffs ask DEM to order the City to test both the water and the soil that was soaked by the water for VOCs, metals, pesticides and SVOCs.

Thank you in advance for DEM's consideration of these concerns. The plaintiffs request that DEM respond to these concerns in writing. And, on a personal note, seasons greetings to you and your families.

Very truly yours,

Steven Fischbach Community Lawyer / Unit Head

Enclosure

Kevin McHugh Cc:

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# **Exposure Monitoring**

#### **Products**

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# INSPECTAIR™-CO2 Carbon Dioxide Monitor Model 8560

Locate dangerous CO2 levels in your plant with the INSPECTAIR-CO2 Carbon Dioxide Monitor.

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## Features and Applications

The INSPECTAIR-CO2 monitor is a compact, hand-held instrument which

accurately measures carbon dioxide concentrations over a wide range. High precision, repeatable and reliable measurements up to concentrations of 5 percent (50,000 ppm) CO2 are attained using our proven Non-Dispersive Infra-Red (NDIR) technology. Unlike electrochemical devices and detector tubes, this sensor never needs replacing for the life of the instrument.

The easy-to-use INSPECTAIR-CO2 monitor is the perfect tool for locating dangerously high CO2 levels in your plant. If your manufacturing process uses or produces significant quantities of CO2, you owe it to your employees to make sure the workplace is safe. And the fast response of the INSPECTAIR-CO2 monitor makes it ideal for locating expensive CO2 leaks that can add up to big dollars fast.

The INSPECTAIR-CO2 monitor provides a dual-level alarm to alert you when potentially dangerous conditions exist. The instrument displays real-time CO2 concentrations in ppm or percent and calculates statistics, including the average, minimum and maximum levels measured during survey mode samples. In addition, the instrument is easily calibrated in the field for user convenience.

#### **Key Applications**

- Breweries
- Carbonated beverage bottling plants
- Meat and poultry processing operations
- Food processing operations
- Leak checking
- Industrial CO2 applications

#### **Key Features**

- Measures CO2 concentrations up to 50,000 ppm or 5%
- Easy to use
- Displays CO2 in ppm or percent concentration units (user selectable)
- Hand-held, lightweight and compact
- 2 independent level alarm settings (trigger points set by user)
- Calculates sample statistics including average, minimum, maximum and sample duration
- Easily calibrated in the field
- Integral printer port for TSI Model 8925HS Portable Printer



### INSPECTAIR-CO2 Carbon Dioxide Monitor Model 8560 Specifications

#### CO2:

Sensor type

Non-Dispersive Infrared (NDIR)

Range

0 to 50,000 ppm (0 to 5.0%) CO2

Accuracy

±3% of reading ±200 ppm

Resolution

10 ppm

Response time

20 seconds

#### Instrument Temperature Range:

Operating range 40 to 113°F (5 to 45°C)

Storage range -4 to 140°F (-20 to 60°C)
Time Constant Adjustable from 2 to 60 seconds

Physical:

External dimensions 3.9 in x 6.6 in x 1.5 in (99 mm x 168 mm x 38 mm)

Instrument weight 1.3 pounds with batteries (0.59 kg)

#### Power:

AC

AC adapter (included)

Battery

Four AA-size batteries (included) Typical battery life 14 hours with Alkaline batteries

Warranty

2 years on parts and labor

Specifications are subject to change without notice.



#### Accessories Included with the Instrument

- CO2 Calibration Collar
- Wrist strap
- Splash Guard
- Probe stand
- Operation and Service Manual
- Carrying case
- Calibration certificate
- 4 AA Alkaline batteries
- AC Adapter



## Optional Accessories

- Model 8925HS Portable Printer
- Model 800705 CO2 Calibration Kit (30,000 ppm)\*
- \* Not available for shipment outside the USA. See How to Obtain Calibration Gas in Non-USA Locations.



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