

5 April 2007

Pacific File: 7379-R1hw

Radiant Health Saunas

Vancouver, BC

Attention: Mr. Randy Gomm

Reference: VOC Sampling in Radiant Health Sauna (Model E-2H)

Dear Sir,

In response to your request, Pacific Environmental Consulting has conducted testing for the presence of Volatile Organic Compounds (VOCs) in the Radiant Health Sauna (Model E-2H). Testing was performed on a newly assembled unit on April 3, 2007.

1.0 Background

Volatile Organic Compounds (VOCs) are emitted as gases from certain solids or liquids and include a variety of chemicals. Some VOCs may have short and/or long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors as they are emitted by a wide array of products. Examples include paints and lacquers, paint strippers, cleaning supplies, pesticides, building materials and furnishings, office equipment and craft materials such as glues, inks and adhesives. Exposure to high concentrations of VOCs can cause different reactions dependent on which organic chemical is present, the concentration present and the length of exposure time. Usually, symptoms of exposure to VOCs include headaches, nose and throat irritation, fatigue and dizziness; however, symptoms can vary.

The sauna used during this test was new and had been only been unpackaged and assembled two days prior to this test. The sauna was only activated for approximately 30 minutes after assembly to ensure all infrared heaters were in working condition.

2.0 Methodology

A MiniRAE Photoionization Gas Detector (PID) manufactured by RAE Systems Inc. was used for this test. The PID instrument is a direct read instrument equipped with a 10.6eV lamp and is capable of detecting a wide spectrum of VOCs. The instrument was last calibrated on March 30, 2007 with 100 ppm Isobutylene gas and was performed in accordance with the manufacturer's instructions.

Measurements of VOC concentration levels was performed inside the sauna prior to activation and was activated for a period of 30 minutes with readings noted at 1 minute intervals. A length of tubing was lowered into the sauna from the centre ceiling vent holes to a level of approximately 4.5 feet above the floor. All testing was performed with the sauna door closed.

3.0 Results

The results of the VOC testing did not show any discernable levels of VOCs inside the sauna unit. All measurements recorded with the PID are listed below (see Table 1).

Table 1: VOC Concentration Inside Sauna Unit

| Test Conditions | Time in Operation (minutes) | Temperature Inside Sauna ¹ (° F) | VOC Concentration (ppm) |
|-----------------|-----------------------------|---|-------------------------|
| Sauna OFF | -- | -- | 0 |
| Sauna ON | 1 | -- | 0 |
| Sauna ON | 2 | -- | 0 |
| Sauna ON | 3 | -- | 0 |
| Sauna ON | 4 | -- | 0 |
| Sauna ON | 5 | -- | 0 |
| Sauna ON | 6 | 86 | 0 |
| Sauna ON | 7 | 90 | 0 |
| Sauna ON | 8 | 94 | 0 |
| Sauna ON | 9 | 96 | 0 |
| Sauna ON | 10 | 99 | 0 |
| Sauna ON | 11 | 101 | 0 |
| Sauna ON | 12 | 103 | 0 |
| Sauna ON | 13 | 104 | 0 |
| Sauna ON | 14 | 105 | 0 |
| Sauna ON | 15 | 106 | 0 |
| Sauna ON | 16 | 108 | 0 |
| Sauna ON | 17 | 110 | 0 |
| Sauna ON | 18 | 110 | 0 |
| Sauna ON | 19 | 113 | 0 |
| Sauna ON | 20 | 113 | 0 |
| Sauna ON | 21 | 114 | 0 |
| Sauna ON | 22 | 115 | 0 |
| Sauna ON | 23 | 116 | 0 |
| Sauna ON | 24 | 117 | 0 |
| Sauna ON | 25 | 119 | 0 |
| Sauna ON | 26 | 120 | 0 |
| Sauna ON | 27 | 121 | 0 |
| Sauna ON | 28 | 121 | 0 |
| Sauna ON | 29 | 122 | 0 |
| Sauna ON | 30 | 123 | 0 |

¹ Temperature readings as displayed on panel

4.0 Conclusions & Recommendations

The results of the testing do not show any discernable levels of airborne Volatile Organic Compounds (VOCs) in the sauna unit prior to or while the unit was activated for 30 minutes, which reached a temperature of 123°F.

Thank you for having Pacific Environmental conduct this work for you. Should you have any further questions, please contact me at your earliest convenience.

Yours truly,



Harvey Wong, ASCT, ROHT, CRSP, Sr. Technologist
Pacific Environmental Consulting & Occupational Hygiene Services