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February 14, 2014

Jeff Derby Western Forest Products 510 – 700 West Georgia Street Vancouver, British Columbia P.O. Box 10032, V7Y 1A1

RE: Cedar Saunas

Dear Mr. Derby,

I hope the following points will help correct any misconceptions in the marketplace around potential health effects from using western red cedar in saunas.

- Western red cedar (*Thuja plicata*) does not contain the volatile oils cedrene and cedral. These compounds are
 found in other "cedars", most notably in <u>eastern</u> red cedars (*Juniperus* species) which are used to make "cedar
 oil". These species are not closely related to western red cedar.
- Methyl thujate is the compound primarily responsible for western red cedar's odour. There are no known reports of any adverse health effects associated with exposure to methyl thujate.
- Reports of adverse health effects from exposure to western red cedar are from exposure to airborne dust, not
 volatiles. The causative agent in western red cedar dust for asthmatic reactions is plicatic acid, which is nonvolatile.
- In their review of the health effects associated with exposure to western red cedar, Bartlett and Griffiths (2004) report "adverse health effects resulting from exposure to allergenic softwood appear to be limited to wood dust and not to contact with intact wood based on a review of available peer reviewed literature."
- Anecdotally, First Nations peoples of the Pacific Northwest have lived intimately with western red cedar for millennia. Western red cedar wood and bark was used for clothing, housing, and food storage and preparation.

Sincerely,

Rod Stirling, Ph.D.

Senior Scientist, Advanced Building Systems