



### SES PureAir: Ozone - Facts & Fiction

## Are Devices That Emit Ozone Dangerous?

All UV lights give off some Ozone, even though many UV light manufacturers (stick lights) claim “No Ozone” in their literature, this is technically is not true. UV Lights usually emit in the .003 -.08 ppm range (this can vary due to test point and methods). But this is not a concern as many electrical products give off Ozone. These include:

- **Electric motors, Refrigerators, Televisions, Printers, Photocopiers, Dishwashers, Projectors, Hair Dryers, Lighting & Transformers, to name a few...**

Mother Nature also makes Ozone with lightning and sunlight. This is why the outdoor air after a thunderstorm smells so clean. Most scientists believe that Ozone is the natural process by which the environment cleans the air.

But misconceptions regarding Ozone have resulted in a lot of misleading Information, such as that put forward by The California “No Ozone” initiative. Ozone in high levels can of course be dangerous, but to propose that all products must be “Ozone-Free” is completely unnecessary. Ozone emitting products can be already be found all around the home and the SES PureAir Series is no different, emitting the same safe levels, or even less Ozone than those products named above. Even the computer you might be reading this on will be emitting Ozone.

## What Is Ozone?

Ozone is an oxygen molecule bonded with a third atom and appears as a pale blue gas. Oxygen is O<sub>2</sub> and Ozone is O<sub>3</sub>. Ozone is a strong oxidizer widely used in water and food purification, as well as commercial and industrial air purification. Ozone is all around us in nature. Listed are some typical ozone levels.

### Typical Ozone Levels in PPM (1.0 Human Tolerance Level)

- .003 - .015 Ozone Odour Detecting Range
- .02 - .05 Outdoor Air after Lightning
- <.04 OSHA Safety Limit for Indoor Air
- <.05 FDA Safety Limit for Medical Devices (Indoor)
- <.05 California EPA for Air Cleaning Devices (Indoor)
- .005 - .01 Heavy Forest Country Air
- .003 - .08 UV Light bulb (stick lights)
- <.12 EPA Limit for City Air

# PureAir Series - Ozone

## Air Purification, Infection & Odour Control



## Have The Results & Safety Of The SES PureAir Been Verified?

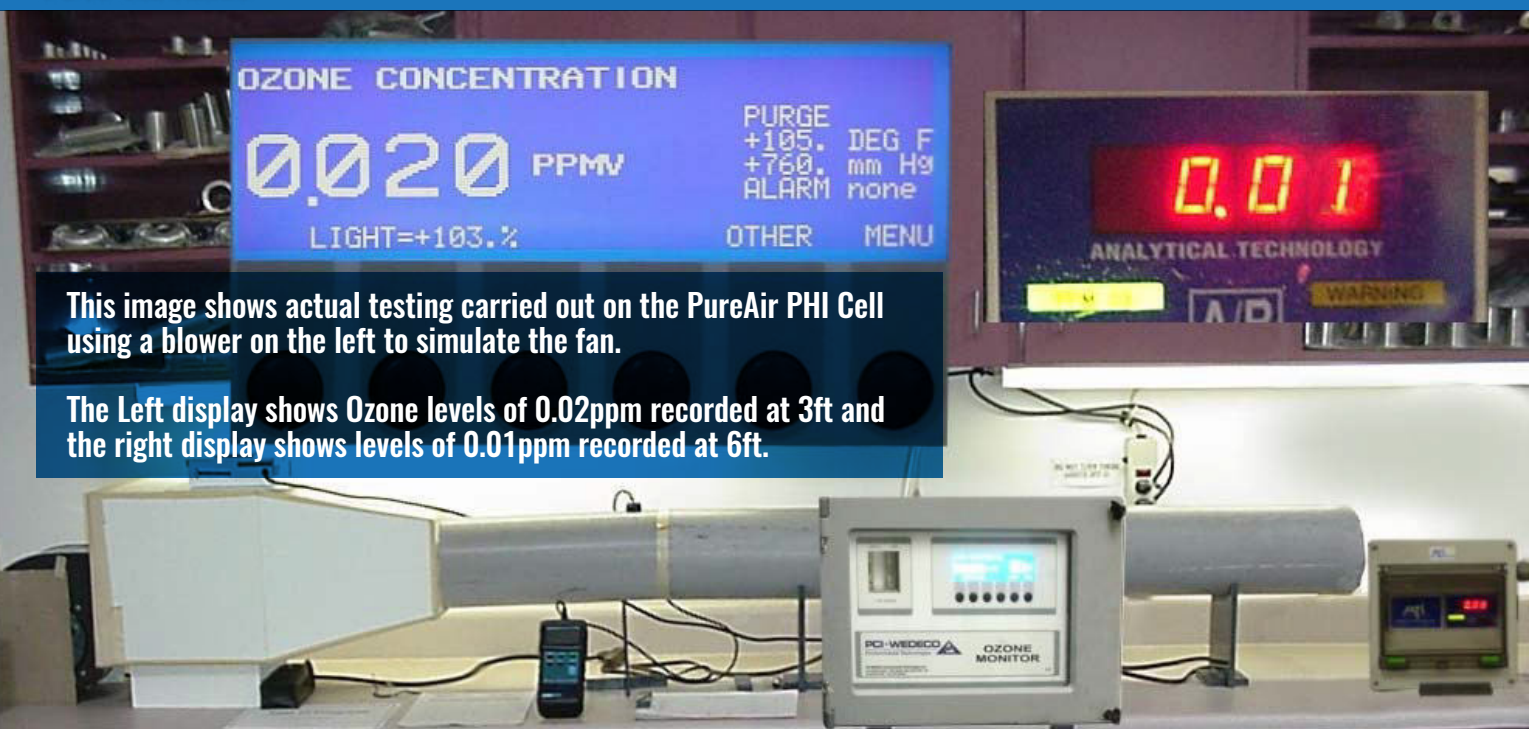
The PureAir PHI (Photohydroionisation) Cell Technology has been vigorously tested by in-house R&D Engineers, as well as:

- **Outside by third party Laboratories, Government Agencies, Universities (Including Kansas State University's Infectious Diseases Centre) & Major Fortune 500 clients including: FDA, Federal Food Safety Service, ETL, TUV, UL, to name a few...**

All results have shown in the .01 ppm range or well below, measuring approximately one-fifth the FDA and California safety limits. In a one-year study by Disney Hotels, ambient room Ozone levels were actually lower in rooms with PHI technology than in rooms without.

Accordingly, the PureAir Range is as non-ozone as any electrical item can get.

## Test Results



This image shows actual testing carried out on the PureAir PHI Cell using a blower on the left to simulate the fan.

The Left display shows Ozone levels of 0.02ppm recorded at 3ft and the right display shows levels of 0.01ppm recorded at 6ft.