

**Subject:** Indoor vs. Outdoor Exposure  
**From:** Scott Cohen <SCohen@wcenviro.com>  
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**To:** ab1173@listserv.arb.ca.gov

Dear Sir/Madam:

I am concerned with consistency of indoor and outdoor exposure methodologies used by the ARB.

I have performed health risk assessments for many industrial facilities in order to comply with AB2588 and for planning purposes.

The draft report presents the "Rule of 1000" which states "A typical pollutant release indoors is 1000 times as effective in causing human exposure as the same release to urban air." In addition the report states that people spend most of their time indoors.

Dispersion modeling for a chronic or carcinogenic pollutant at a closest receptor (i.e. residence) using AB2588 methods requires that emission rates be annualized so that the steady-state concentration can be determined. However, if facility emissions are intermittent (e.g. the facility operates 8 hr/day), then this assumption causes exposure to be artificially high.

The draft report states "Once emitted, indoor air pollutants are much less diluted, due to the partial trapping effect of the building shell." This trapping effect would also cause infiltration of outdoor pollutants in ambient air to be retarded. Therefore, for an intermittent industrial source, the resulting concentration of pollutants inside a home (i.e. at the receptor) would be less in amplitude and lag behind the ambient concentration.

How does the ARB plan to reconcile this issue?

Regards,

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