



Technical Consultation, Data Analysis and  
Litigation Support for the Environment

**SOIL WATER AIR PROTECTION ENTERPRISE**

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December 3, 2014

Gideon Kracov  
The Law Offices of Gideon Kracov  
801 S Grand Ave #11  
Los Angeles, CA 90017

Subject: Imperial Valley PM2.5 SIP Nonattainment Area – Report Addendum

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Dear Mr. Kracov,

Upon further review of EPA Air data for Calexico, SWAPE presents this addendum to the previously submitted Imperial Valley PM2.5 SIP Nonattainment Area – Report dated November 25, 2014.

The conclusions of the Imperial County Air Quality Management District in the Draft Imperial Valley PM2.5 SIP appear to be based on PM2.5 data reported as “local conditions.” This designation means that the data meets regulatory conditions. It must be collected and sampled under the Federal Reference Method (FRM) for PM2.5 using specific instruments and analysis.

However, in addition to this data, there exists raw PM2.5 data at Calexico collected using continuous monitors. Continuously collected data must be correlated to the FRM data to be meaningful, and if outside of 10% of the value, it is considered “raw data.” While it still provides valid measurements, it offers support to FRM data and is not reliable on its own.

There are four points of collection for PM2.5 at Calexico. Points of Collection (POC) 1 and 2 are collocated and meet FRM standards. They produce local conditions data every 3 days. POC 3 and 4 collect continuous data and produce raw data.

Review of the raw data for Calexico in 2012 shows that there were possibly 11 days that year where the average daily PM2.5 concentration was above 35 ug/m<sup>3</sup>, as opposed to the 2 officially reported when observing local conditions data.

A summary of the differences between data is shown below in **Table 1**. The estimated corrected data was calculated by SWAPE from raw data. The average percent difference (local conditions were 15% lower) between local conditions and raw data was calculated for days which included both data sets. This factor

was applied to the average raw data value for every day of the year to create a corrected number for days with no local conditions data.

While this method does not presume to create valid daily average values, it does demonstrate that there may in fact have been both more exceedance days (11 days vs. 2 days) and a greater percentage of days of the year in exceedance than reported in the SIP.

Table 1. Calexico 2012 PM2.5 Exceedence Days

<b>Point of Collection</b>	POC 1	POC 2	POC 3	POC 4	POC 3 and POC 4
<b>Data Type</b>	Local Conditions	Local Conditions	Raw Data	Raw Data	Estimated Corrected Data
<b>Number of Days Reported</b>	94	69	366	358	366
<b>Number of Days Above 35 ug/m3</b>	2	2	11	20	11
<b>Percent of Days Above 35 ug/m3</b>	2.1%	2.9%	3.0%	5.6%	3.0%

Sincerely,



Paul E. Rosenfeld, Ph.D.  
*Principal*



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## ***Paul Rosenfeld, Ph.D.***

**Chemical Fate and Transport & Air Dispersion Modeling**

*Principal Environmental Chemist*

**Risk Assessment & Remediation Specialist**

### **Education:**

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.  
M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.  
B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

### **Professional Experience:**

Dr. Rosenfeld is the Co-Founder and Principal Environmental Chemist at Soil Water Air Protection Enterprise (SWAPE). His focus is the fate and transport of environmental contaminants, risk assessment, and ecological restoration. Dr. Rosenfeld has a doctorate in soil chemistry and has evaluated odors from biosolid applications to soil and the effect of biosolids to agricultural crops. Dr. Rosenfeld has also evaluated odor emissions from the compost and food industry. His project experience includes monitoring and modeling of pollution sources as they relate to human and ecological health. Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing petroleum, chlorinated solvents, pesticides, radioactive waste, PCBs, PAHs, dioxins, furans, volatile organics, semi-volatile organics, perchlorate, heavy metals, asbestos, PFOA, unusual polymers, MtBE, fuel oxygenates and odor. Dr. Rosenfeld has also evaluated and modeled emissions from fracking, boilers, incinerators and other industrial and agricultural sources relating to nuisance and personal injury.

### **Professional History:**

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner  
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)  
UCLA School of Public Health; 2003 to 2006; Adjunct Professor  
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator  
UCLA Institute of the Environment, 2001-2002; Research Associate  
Komex H<sub>2</sub>O Science, 2001 to 2003; Senior Remediation Scientist  
National Groundwater Association, 2002-2004; Lecturer  
San Diego State University, 1999-2001; Adjunct Professor  
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager  
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager  
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor  
King County, Seattle, 1996 – 1999; Scientist  
James River Corp., Washington, 1995-96; Scientist  
Big Creek Lumber, Davenport, California, 1995; Scientist  
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist  
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist  
Bureau of Land Management, Kremmling Colorado 1990; Scientist