

July 29, 2004

Mr. Larry Dorsey  
U.S. EPA  
FIFRA Science Advisory Panel  
Arlington, VA

Dear Mr. Dorsey,

The enclosed materials support the Probabilistic Exposure and Risk Model for FUMigants (PERFUM), which is scheduled to be presented to the SAP on August 24-25, 2004. The package includes the following items:

- A report describing the model and applying it to iodomethane.
- A printout of the computer code for both the PERFUM and PERFUM\_MOE programs.
- A CD-ROM containing the above materials, and modeling results for the iodomethane case study.

The directory structure of the CD-ROM is as follows:

The FLUX CALCULATION folder contains a spreadsheet file that illustrates the calculation of flux rate estimates from field measurements and modeling results.

The MODEL folder contains separate subfolders for the PERFUM and PERFUM\_MOE programs. Each of these Subfolders contains all of the files necessary to run the model. A detailed description of those files can be found in the user manual. In addition there are two sets of example input files that can be used to run the model in each folder. The example files are for a 5 and 10 acre field with the coarse grid coordinate file. For users interested in running other scenarios, the ISC subdirectory in PERFUM contains example ISCST3 input files for the 10 possible field size and coordinate file combinations.

The METEOROLOGICAL DATA folder contains the files that were used to process the raw data files into a format that could be used in the model. The FAWN-Final directory contains the files used for the Bradenton FAWN data and the ASOS-Final directory contains the files used to process the Bakersfield CIMIS data.

The REPORT folder contains copies of the report and a copy of this memorandum.

The MODELING RESULTS folder contains six subfolders representing the six sets of flux data that were used in this modeling case study described in the report. Each of these subfolders contains four subfolders that represent the four sets of meteorological data that were examined in this case study. Each of these folders contains all of the input and output files from the PERFUM model runs. Details of what is contained in each file can be found in the user manual (Appendix A of the report).

The files all follow an 8 character naming convention that identifies the flux rate data, field size, and meteorology data that were used as inputs. The first two characters indicate the flux data that was used (i.e., the Arvesta-sponsored flux study where the flux data was measured.

MN	Manteca Flat Fume
WF	Watsonville Flat Fume
OX	Oxnard Raised Bed
PR	Plant City Raised Bed
LS	La Selva Beach Drip Irrigation
CD	Camarillo Drip Irrigation

The third and fourth characters indicate the size of the field that was modeled.

01	1 Acre Field
05	5 Acre Field
10	10 Acre Field
20	20 Acre Field
40	40 Acre Field

The last four characters indicate the meteorology data that was used.

BKAS	Bakersfield ASOS
BDFW	Bradenton FAWN
TLNW	Tallahassee NWS
VTCM	Ventura CIMIS

If you have any questions regarding this submission, please contact me at (703) 684-0123.

Sincerely,

Richard Reiss, Sc.D.  
Vice President

cc: Rick Tinsworth (Exponent)  
Laurent Mezin (Arvesta)  
Jim Platt (Arvesta)