



Mary-Ann Warmerdam  
Director

Arnold Schwarzenegger  
Governor

October 14, 2009

Brian L. Bret, Ph.D.  
Dow AgroSciences LLC  
9330 Zionsville Road  
Indianapolis, Indiana 46268-1054

Dear Dr. Bret:

Notice of Additional Data Requirements for Reevaluation of  
Sulfuryl Fluoride Products Intended For Structural Fumigation

On June 27, 2008, the Department of Pesticide Regulation (DPR) placed all sulfuryl fluoride products intended for structural fumigation into reevaluation. Pursuant to the reevaluation, DPR required registrants to submit: 1) a fumigation worker exposure study (area air monitoring and personal air monitoring); and, 2) a residential post-application monitoring study (instantaneous and continuous air measurements).

On September 28, 2008, you submitted monitoring data based on the structural fumigation of a one-story single family residence. The study is entitled, "Sulfuryl Fluoride and Chloropicrin Concentrations in Air During Fumigation, Aeration and Post-Clearance of Residential Structures." DPR is still in the process of evaluating the data.

We will need to evaluate similar data collected from multiple dwelling units to determine if the California Aeration Plan (CAP) is satisfactory for reducing sulfuryl fluoride levels for these larger structures. In addition, the tarpaulin removal aeration plan (TRAP) is currently limited to one and two story single family. DPR has determined that in addition to monitoring data from the fumigation of a one-story single family residence, monitoring data are also needed from a fumigation involving multiple-story multiple dwelling units (i.e., condominiums, townhouses, apartment complexes) to determine if the CAP will reduce sulfuryl fluoride levels to below 1 ppm in larger structures. Without this data, DPR may need to limit use of the CAP to one-story single family residences.



Pursuant to this reevaluation, Dow AgroSciences LLC is hereby required to submit the following:

1. Within **60 days** from the date of this letter, submit monitoring data from a study conducted with multiple-story multiple dwelling units that your company has on file that may fulfill the requirements of this reevaluation as listed in items 2 and 3. If you conducted the study prior to initiation of the reevaluation, you do not need to submit a protocol as identified below.
2. Within **90 days** from the date of this letter, submit a study protocol for a worker exposure monitoring study for multiple-story multiple dwelling units as delineated in Table 1. Monitoring shall be conducted during aeration, un tarping, and reentry of multiple dwelling structures treated at maximum label rates. Monitoring shall include both area air monitoring and personal air monitoring. The exposure study must be designed to monitor inhalation exposure. DPR will establish a date for submission of the final report, once we approve the study protocol.

Table 1. Fumigant worker exposure data requirements for multiple dwelling units.

Type of data required	Stage of Structural Fumigation			Guideline reference
	Aeration	Untarping	Reentry	
Area air monitoring	Required	Required	Required	OPPTS 875.1300, 875.1400
Personal air monitoring	Required	Required	Required	OPPTS 875.1300, 875.1400

3. Within **90 days** from the date of this letter, submit a study protocol for a residential post-application monitoring study for multiple-story multiple dwelling units as delineated in Table 2. Monitoring shall include both instantaneous and continuous air measurements within multiple dwelling structures. Monitoring shall continue until measurements from both sampling methods are below the level of detection. The structure shall be treated at the maximum application rate on the product label. DPR will establish a date for submission of the final report, once we approve the study protocol.

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Table 2. Residential post-application monitoring requirements for multiple dwelling units.

Type of data required	Maximum Application Rate	Guideline reference
Instantaneous air measurements	Required	OPPTS 875.2500
Continuous air measurements	Required	OPPTS 875.2500

If you have any questions regarding the reevaluation process, please contact Ms. Denise Alder by e-mail at <[dalder@cdpr.ca.gov](mailto:dalder@cdpr.ca.gov)> or by telephone at 916-324-3522. If you have any questions regarding the required data, please contact Ms. Linda O'Connell by e-mail at <[loconnell@cdpr.ca.gov](mailto:loconnell@cdpr.ca.gov)> or by telephone at 916-445-1717.

Sincerely,

*Original signed by Liz Pelham for*

Ann M. Prichard, Chief  
Pesticide Registration Branch  
916-324-3931

cc: Ms. Linda O'Connell, Worker Health and Safety Branch, Sr. Environmental Scientist  
Ms. Denise Alder, Registration Branch, Program Specialist  
Ms. Brandi Martin, Registration Branch, Environmental Scientist



Mary-Ann Warmerdam  
Director

Arnold Schwarzenegger  
Governor

October 14, 2009

Luz G. Chan  
Drexel Chemical Company  
P.O. Box 13327  
Memphis, Tennessee 38113-0327

Dear Luz Chan:

## Notice of Additional Data Requirements for Reevaluation of Sulfuryl Fluoride Products Intended For Structural Fumigation

On June 27, 2008, the Department of Pesticide Regulation (DPR) placed all sulfuryl fluoride products intended for structural fumigation into reevaluation. Pursuant to the reevaluation, DPR required registrants to submit: 1) a fumigation worker exposure study (area air monitoring and personal air monitoring); and, 2) a residential post-application monitoring (instantaneous and continuous air measurements).

On September 30, 2009, you submitted a protocol for a monitoring study based on the structural fumigation of a one-story single family residence. DPR is in the process of reviewing the submitted protocol.

DPR has determined that in addition to monitoring data from the fumigation of a one-story single family residence, monitoring data are also needed from a fumigation involving multiple-story multiple dwelling units (i.e., condominiums, townhouses, apartment complexes). Without this data, DPR may need to limit use of sulfuryl fluoride to one-story single family residences.

Pursuant to this reevaluation, Drexel Chemical Company is hereby required to submit the following:

1. Within **60 days** from the date of this letter, submit monitoring data conducted with multiple dwelling units that your company has on file that may fulfill the requirements of this reevaluation as listed in items 2 and 3. If you conducted the study prior to initiation of the reevaluation, you do not need to submit a protocol as identified below.
2. Within **90 days** from the date of this letter, submit a study protocol for a worker exposure monitoring study with multiple-story multiple dwelling units as delineated in Table 1. Monitoring shall be conducted during aeration, untying, and reentry of multiple dwelling structures treated at maximum label rates. Monitoring shall include both area air monitoring and personal air monitoring. The exposure study must be designed to monitor



inhalation exposure. DPR will establish a date for submission of the final report, once we approve the study protocol.

Table 1. Fumigant worker exposure data requirements for multiple dwelling units.

Type of data required	Stage of Structural Fumigation			Guideline reference
	Aeration	Untarping	Reentry	
Area air monitoring	Required	Required	Required	OPPTS 875.1300, 875.1400
Personal air monitoring	Required	Required	Required	OPPTS 875.1300, 875.1400

3. Within **90 days** from the date of this letter, submit a study protocol for a residential post-application monitoring study for multiple-story multiple dwelling units as delineated in Table 2. Monitoring shall include both instantaneous and continuous air measurements within multiple dwelling structures. Monitoring shall continue until measurements from both sampling methods are below the level of detection. The structure shall be treated at the maximum application rate on the product label. DPR will establish a date for submission of the final report, once we approve the study protocol.

Table 2. Residential post-application monitoring requirements for multiple dwelling units.

Type of data required	Maximum Application Rate	Guideline reference
Instantaneous air measurements	Required	OPPTS 875.2500
Continuous air measurements	Required	OPPTS 875.2500

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If you have any questions regarding the reevaluation process, please contact Ms. Denise Alder by e-mail at <[dalder@cdpr.ca.gov](mailto:dalder@cdpr.ca.gov)> or by telephone at 916-324-3522. If you have any questions regarding the required study protocols, please contact Ms. Linda O'Connell by e-mail at <[loconnell@cdpr.ca.gov](mailto:loconnell@cdpr.ca.gov)> or by telephone at 916-445-1717.

Sincerely,

*Original signed by Liz Pelham for*

Ann M. Prichard, Chief  
Pesticide Registration Branch  
916-324-3931

cc: Ms. Janelle Kay, Pyxis Regulatory Consulting, Inc.  
Ms. Linda O'Connell, DPR, Worker Health and Safety Branch, Sr. Environmental Scientist  
Ms. Denise Alder, DPR, Registration Branch, Program Specialist  
Ms. Brandi Martin, DPR, Registration Branch, Environmental Scientist



Mary-Ann Warmerdam  
Director

Arnold Schwarzenegger  
Governor

October 14, 2009

Mr. Ken Kendall  
Ensystem II, Inc.  
P.O. Box 87329  
Fayetteville, North Carolina 28304-7329

Dear Mr. Kendall:

## Notice of Additional Data Requirements for Reevaluation of Sulfuryl Fluoride Products Intended For Structural Fumigation

On June 27, 2008, the Department of Pesticide Regulation (DPR) placed all sulfuryl fluoride products intended for structural fumigation into reevaluation. Pursuant to the reevaluation, DPR required registrants to submit: 1) a fumigation worker exposure study (area air monitoring and personal air monitoring); and, 2) a residential post-application monitoring (instantaneous and continuous air measurements).

On September 30, 2009, you submitted a protocol for a monitoring study based on the structural fumigation of a one-story single family residence. DPR is in the process of reviewing the submitted protocol.

DPR has determined that in addition to monitoring data from the fumigation of a one-story single family residence, monitoring data are also needed from a fumigation involving multiple-story multiple dwelling units (i.e., condominiums, townhouses, apartment complexes). Without this data, DPR may need to limit use of sulfuryl fluoride to one-story single family residences.

Pursuant to this reevaluation, Ensystem II, Inc. is hereby required to submit the following:

1. Within **60 days** from the date of this letter, submit monitoring data conducted with multiple dwelling units that your company has on file that may fulfill the requirements of this reevaluation as listed in items 2 and 3. If you conducted the study prior to initiation of the reevaluation, you do not need to submit a protocol as identified below.
2. Within **90 days** from the date of this letter, submit a study protocol for a worker exposure monitoring study with multiple-story multiple dwelling units as delineated in Table 1. Monitoring shall be conducted during aeration, untopping, and reentry of multiple dwelling structures treated at maximum label rates. Monitoring shall include both area air monitoring and personal air monitoring. The exposure study must be designed to monitor



inhalation exposure. DPR will establish a date for submission of the final report, once we approve the study protocol.

Table 1. Fumigant worker exposure data requirements for multiple dwelling units.

Type of data required	Stage of Structural Fumigation			Guideline reference
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3. Within **90 days** from the date of this letter, submit a study protocol for a residential post-application monitoring study for multiple-story multiple dwelling units as delineated in Table 2. Monitoring shall include both instantaneous and continuous air measurements within multiple dwelling structures. Monitoring shall continue until measurements from both sampling methods are below the level of detection. The structure shall be treated at the maximum application rate on the product label. DPR will establish a date for submission of the final report, once we approve the study protocol.

Table 2. Residential post-application monitoring requirements for multiple dwelling units.

Type of data required	Maximum Application Rate	Guideline reference
Instantaneous air measurements	Required	OPPTS 875.2500
Continuous air measurements	Required	OPPTS 875.2500

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If you have any questions regarding the reevaluation process, please contact Ms. Denise Alder by e-mail at <[dalder@cdpr.ca.gov](mailto:dalder@cdpr.ca.gov)> or by telephone at 916-324-3522. If you have any questions regarding the required study protocols, please contact Ms. Linda O'Connell by e-mail at <[loconnell@cdpr.ca.gov](mailto:loconnell@cdpr.ca.gov)> or by telephone at 916-445-1717.

Sincerely,

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Ann M. Prichard, Chief  
Pesticide Registration Branch  
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Ms. Linda O'Connell, DPR, Worker Health and Safety Branch, Sr. Environmental Scientist  
Ms. Denise Alder, DPR, Registration Branch, Program Specialist  
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