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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

DEC 1 7 2012

MEMORANDUM

SUBJECT: **NAFTA Guidance for Evaluating and Calculating Degradation Kinetics in Environmental Media**

FROM: Donald Brady, Director
Environmental Fate and Effects Division
Office of Pesticide Programs

TO: Environmental Fate and Effects Division
Office of Pesticide Programs

The Environmental Protection Agency's Office of Pesticide Programs and Health Canada'sPesticide Management Regulatory Authority,(PMRA) have developed a consistent approach for evaluating and calculating degradation kinetics in environmental media. This NAFTA guidance, which is effective immediately, will facilitate work sharing and joint reviews between the two countries.

The guidance can be found on the G drive in the Environmental Fate Tech Team (FTT) folder (G:\Teams and Panels\Tech Teams\Fate-Chemistry(FTT)\Current Projects\NAFTADegradationKinetics) and on the EPA website (http://www.epa.gov/oppfead1/international/naftatwg/guidance/degradation-kin.pdf).

Although degradation kinetics may be calculated using a variety of standard tools for nonlinear regression, EFED recommends that PestDF (Attachments 2 through 4) be used. An Excel spreadsheet (Attachment 5) is available as an alternative to calculate the kinetics. Additionally, the attached SOP includes information about characterizing pesticides in environmental media for data evaluation reports and risk assessment purposes (Section 4.2 of Attachment 4).

An evaluation of the NAFTA guidance will take place for a period of six months, during which time scientists are encouraged to provide feedback regarding the guidance to EFED's Fate Technology Team and the Degradation Kinetics Team. All new Data Evaluation Records (DERs) for biotic and abiotic environmental fate studies undergoing evaluation should follow the NAFTA harmonized degradation kinetics guidance during this evaluation period. If you have any questions regarding this guidance document, please contact the Co-chairs of the Fate Tech Team.

Attachments: *Note: Components that make up PestDF are attachments 2 and 3.*

- Attachment 1: NAFTA Degradation Kinetics Dec 21 2011 (G:\Teams and Panels\Tech Teams\Fate-Chemistry(FTT)\Current Projects\NAFTADegradationKinetics)
- Attachment 2: PestDFV1 (G:\Teams and Panels\Tech Teams\Fate-Chemistry(FTT)\Current Projects\Degradation Kinetics Case Studies\R program)
- Attachment 3: R-2.15.0-win (G:\Teams and Panels\Tech Teams\Fate-Chemistry(FTT)\Current Projects\Degradation Kinetics Case Studies\R program)
- Attachment 4: Standard Operating Procedure for Using the NAFTA Guidance to Calculate Representative Half-life Values and for Characterizing Pesticide Degradation (G:\Teams and Panels\Tech Teams\Fate-Chemistry(FTT)\Current Projects\Degradation Kinetics Case Studies\R program)
- Attachment 5: Degradation Kinetics Excel Spreadsheet (G:\Teams and Panels\Tech Teams\Fate-Chemistry(FTT)\Current Projects\Degradation Kinetics Case Studies)