



Department of Pesticide Regulation



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Director

MEMORANDUM

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TO: Lisa Quagliaroli
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DATE: January 27, 2011

SUBJECT: DETERMINATION IF CALIFORNIA DEPARTMENT OF FOOD AND
AGRICULTURE'S CHLOROTHALONIL METHOD (EMON-SM-05-020)
MEETS THE "UNEQUIVOCAL DETECTION" CRITERIA

BACKGROUND

The Pesticide Contamination Prevention Act (Food and Agricultural Code [FAC] sections 13141 et seq.) was passed in 1985 to prevent further pesticide pollution of ground water which may be used for drinking water supplies. FAC section 13149 specifies the conditions under which a pesticide is considered "found" in ground water or soil, and thus subject to formal review as specified. As originally adopted, FAC subsection 13149(d) specified that a finding of a pesticide shall be verified by a second analytical method or a second analytical laboratory approved by the Department of Pesticide Regulation (DPR). However, the law was amended by Senate Bill 810 in 1995 to allow a finding of a pesticide in ground water or soil to be based on a single analytical method conducted by a single analytical laboratory, if the analytical method provides unequivocal identification of a chemical. Following this change, criteria were established to identify methods providing unequivocal identification of a chemical in a February 13, 1996, DPR memo entitled "Definition of unequivocal detection method for the purposes of Senate Bill 810 (Biermann, 1996)."

ISSUE

Does the analytical method for Chlorothalonil used by the California Department of Food and Agriculture (CDFA) meet the definition of an unequivocal detection method?

DISCUSSION AND RECOMMENDATION

CDFA Center for Analytical Chemistry, Environmental Analysis Section (method EMON-SM-05-020) uses an UPLC/MS/MS system for the detection of fungicide Chlorothalonil. Prior to injection of sample into the UPLC/MS/MS apparatus, the well water samples are cleaned and extracted. Consequently the well water samples generally contain a minimal amount of background/matrix interference, facilitating the goal of unequivocal detection.



Lisa Quagliaroli
January 27, 2011
Page 3

REFERENCES

Biermann, H. 1996. Memorandum to Kean S. Goh, Ph.D. "Definition of 'unequivocal detection methods' for the purposes of Senate Bill 810."