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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 28, 2011

MEMORANDUM

SUBJECT: Effects Determinations for Methyl Bromide (PC Code 053201) Relative to the California Tiger Salamander and Designated Critical Habitat for the California Tiger Salamander

FROM: Mah Shamim, Branch Chief
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TO: Anita Pease, Associate Director
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Attached is the assessment of potential direct and indirect effects on the Central California, Sonoma County, and Santa Barbara County Distinct Population Segments (DPSs) of the California Tiger Salamander (CTS; *Ambystoma californiense*) arising from FIFRA regulatory actions regarding all registered uses of the methyl bromide (PC Code 053201). In addition, this assessment evaluates whether the action is expected to result in modification of designated critical habitat for the CTS. The attached ecological risk assessment addresses potential risk to the CTS for which methyl bromide was alleged to be of concern in a complaint made by the Center for Biological Diversity against United States Environmental Protection Agency on May 30, 2007 (Case No: 07-2794-JCS).

The attached assessment was conducted consistent with the Agency's Overview Document[1]. Effects determinations for this assessment are summarized below:

> Based on the best available information, the Agency makes a May Affect, and Likely to Adversely Affect (LAA) determination for the Central California, Santa Barbara County, and Sonoma County CTS DPSs from the labeled uses of methyl bromide as described in the attached document. The effects determination is based on potential direct and indirect effects to CTS. The LAA determination for direct effects to the terrestrial-phase CTS applies to registered tile, timber and space structural uses in California.
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> In addition to direct effects, there is also an LAA determination for indirect effects for reduction in prey and alteration in the habitat. The effects determination for indirect effects for the terrestrial-phase CTS includes reduction in amphibians, mammals and terrestrial invertebrates as prey. The indirect effects determination is based on a potential reduction in amphibian prey from the structural applications of tile, timber and space

[1] Overview of the Ecological Risk Assessment: Process in the Office of Pesticide Programs, U.S. Environmental Protection Agency: Endangered and Threatened Species Effects Determinations: January 23, 2004.

applications. The indirect effects determination is also supported due to a potential reduction in mammal prey from the structural applications of methyl bromide for food and commodity and tile, timber and space applications. The risk to soil invertebrates is presumed due to the absence of toxicity data and efficacy data for methyl bromide for both soil fumigant and structural applications. The determination for alteration of the habitat is based on potential impacts to mammal burrows and presumed risk to terrestrial plants. Risk to mammals that provide burrows as shelter for the terrestrial-phase CTS is indicated for food and commodity and tile, timber and space applications of methyl bromide. Presumed risk to terrestrial plants for soil and structural applications is due to the absence of terrestrial plant toxicity data for methyl bromide combined with its phytotoxic properties and available plant incident data. In addition to direct toxic effects on terrestrial plants, other effects may result from changes in soil acidity and loss of beneficial soil bacteria associated with methyl bromide use. Additionally, the Agency has determined that there is the potential for modification of designated critical habitat of the CTS in the Central California and Santa Barbara County DPSs for the use of methyl bromide based on potential reduction in prey and alteration in the environment from reduction in mammal burrows as shelter and effects to terrestrial plants.

The LAA determination for the CTS is based on current uses of methyl bromide without consideration of voluntary cancelation requests received from the registrants for all methyl bromide products. Since the Montreal Protocol is mandating the phase-out of methyl bromide due to stratospheric ozone depletion concerns, the Agency anticipates that all existing uses (i.e., stocks manufactured or imported into this country before 2005) will be substantially reduced over the next few years. These uses include pre-plant soil applications of methyl bromide on berries, golf courses, and athletic fields, and space fumigation inside structures. However, for the time being, critical use and quarantine and pre-shipment exemptions allow for newly manufactured or recently imported stocks of methyl bromide to be used. Critical use exemptions (CUEs) currently exist for methyl bromide registered uses on pre-plant treatments for orchard replanted trees, peppers, eggplant, cucurbits, forestry nursery, nursery and ornamentals, strawberries, sweet potatoes, and tomatoes. Quarantine and pre-shipment (QPS) exemptions include methyl bromide registered uses for post-harvested food and commodities, tile and timber stored in structures. Eligibility of uses under CUEs and QPS exemptions are reviewed by The Agency annually.

As required by the Alternative Consultation Agreement EPA entered into with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (Services), I have been trained by the Services to make such determinations. Additionally, this assessment was subjected to internal Agency peer review throughout its development.

Please let me know if you have any questions regarding this assessment and effects determination for methyl bromide relative to the CTS and potential modification to designated critical habitat.

Attachments