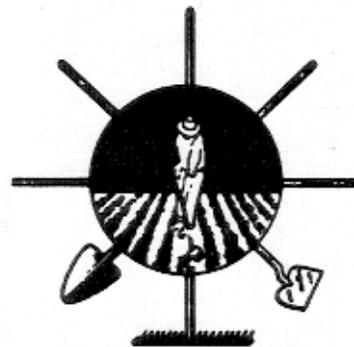


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August 2, 2004

Public Information and Records Integrity Branch
Information Resources and Services Division (7502C)
Office of Pesticide Programs
Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

RE: Docket Number: OPP-2003-0237
Comments on Interim Re-registration Eligibility Decision (IRED) for
Methyl Parathion

Dear Sir or Madam:

These comments are submitted on behalf of the Farmworker Justice Fund, Inc. (FJF), California Rural Legal Assistance Foundation (CRLAF), Beyond Pesticides (BP), and the Natural Resources Defense Council (NRDC). FJF is a Washington D.C.-based, national advocacy center, which seeks to improve living and working conditions for migrant and seasonal farmworkers and their families. For more than two decades, FJF has advocated for a phase-out in the use of agricultural pesticides which pose serious health risks to farmworkers and/or their families.

Established in 1981, CLRAF is a 501(c)(3) not-for-profit organization that provides advocacy and community education to help California's farm workers and other rural poor improve their own social, health and economic conditions. CRLAF also provides training and technical assistance to other legal services providers and non-profit organizations. CRLAF project areas include citizenship, environmental justice, pesticides and work safety, rural health, labor rights and housing.

Beyond Pesticides/National Coalition Against the Misuse of Pesticides (NCAMP) is a non-profit, 501(c)(3), public interest organization incorporated in the District of Columbia. It was founded in 1981 and has a membership of approximately 1,200

NRDC uses law, science and the support of more than 1 million members and online activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things.

We strongly oppose the Agency's recent decision to reregister methyl parathion for twenty-one (21) uses. In light of the availability of alternatives, the unacceptable health risks posed by this product to farmworkers, farm children and the environment should not be permitted.

I. Methyl Parathion Poses Unacceptable Health Risks

On August 2, 1999, the EPA announced a cancellation agreement and risk reduction strategy to increase protections for American families and their children from risks posed by the pesticide methyl parathion. Five years later, the EPA has announced its decision to allow the reregistration of methyl parathion for use on 21 crops. Among these uses are a number of labor intensive crops, including onions, sweet corn, sweet potatoes, walnuts, white potatoes, and yams. Even with engineering controls the risks to workers who mix, load, and apply this pesticide are unacceptably high. As a result of this decision, the health of the farmworkers who handle this pesticide, their children, and the children who live nearby continues to be in danger. The Agency categorically failed to quantify, or even adequately consider the health risks in its benefits assessments and for this reason, its reregistration decision must be reversed

A. MOEs are Unacceptably Low

As the EPA noted in 1999, methyl parathion is hazardous to workers who handle or apply the pesticide as part of their occupation, and who work in fields to harvest treated crops. The EPA further noted that protective clothing and equipment are not sufficient to reduce the risks to workers to acceptable levels. The Agency claimed then that worker risk would be reduced by its cancellation of all fruit and many vegetable uses, many of which are hand-harvested crops. Despite an acknowledgement that there is a significant risk to workers, even with the use of protective clothing and engineering controls, the EPA's most recent action on methyl parathion failed to cancel the pesticide for use on all labor- intensive crops. Consequently, a significant threat to many workers still remains.

Using chemical specific data in some instances and data from its Pesticide Handler Database (PHED) in others, the EPA determined the amount of exposure to handlers using available mitigation measure (e.g. personal protective equipment, close mixing and loading systems and enclosed cabs) in 19 different use patterns. In 12 of the 19 scenarios, the margins of exposure (MOE) for some crops were far less than 100 which is the minimum level required for safety. Moreover, in 16 use patterns, the MOEs for handlers using methyl parathion were 10 or less even when engineering controls or the most protective equipment feasible was utilized. These unacceptably low MOEs – calculated even when engineering controls and personal protective equipment are utilized – underscore the significant risk that methyl parathion poses for farmworker health.

B. The Magnitude of the Health Risks to Handlers of Methyl Parathion Must Take Into Account the Fact that Handlers Are Exposed to Other Organophosphates as Well as Methyl Parathion in any given 30-Day Period

The occupational health risks associated with methyl parathion cannot be viewed in isolation. In assessing the magnitude of these risks the Agency must also take into account the fact that handlers may work with other cholinesterase inhibiting organophosphates as well as methyl parathion in any given 30 day period. Thus it is not only the toxicity of methyl parathion itself but also its ability to tip the balance to cholinesterase depression that constitutes the true extent of its risk. Currently, California and Washington State have mandatory programs which monitor cholinesterase inhibition in agricultural employees who handle toxicity category I and II organophosphates and carbamates. Recent results from Washington indicate that 5% of pesticide handlers had levels of cholinesterase depression significant enough to require their removal. Another 16% had levels low enough to trigger agency evaluation. By allowing 21 uses of methyl parathion the Agency will almost certainly increase the number of handlers who will suffer cholinesterase depression. However, while California and Washington have programs to identify and remove handlers with cholinesterase depression, the other 48 states do not. As such, allowing use of methyl parathion will lead to organophosphate poisoning in many handlers throughout the nation.

C. The EPA Improperly Interpreted the Incident Data

The EPA improperly interpreted the incident data on methyl parathion related illnesses. The incident data collected by the EPA indicates that many workers have been injured by methyl parathion. Nonetheless, the IRED suggests that methyl parathion may not be as dangerous as some other organophosphates when the rate of incidents is calculated per pound of products used. The fallacy of calculating an incident rate in that manner is that both the number of incidents and the true extent of use are not known.

Underreporting of pesticide-related illnesses is recognized as a major problem. This is due to a multiplicity of factors including: lack of access to healthcare, fear of retaliatory firing, limited pesticide training, and the failure of health professionals to recognize, diagnose, and report pesticide related illnesses. One California study found that 40% of workers who sought treatment for pesticide illness said that a co-worker had not sought similar treatment. (Maizlish N, et al., "The Surveillance of Work-Related Pesticide Illness: An Application of the Sentinel Event Notification System for Occupational Risks," American Journal of Public Health, vol. 85 pp. 806-11 (1995)). A 2001 focus group study conducted by the Washington State Department of Health found that 75% of the participating farmworkers reported experiencing symptoms of pesticide illness, although most did not seek medical attention. ("Summary Results of Yakima Farmworker Focus Groups about Pesticides and Health Care," Washington State Department of Health, September 22, 2003.) According to a 1995 Washington report on cholinesterase monitoring "current record keeping on pesticide-related exposures and health problems has limitations in assessing the magnitude of the problem workers face. There is a consensus within the public health community that many exposures and health problems are not reported, so that existing data represents the tip of the iceberg." (Miller M, et al., Cholinesterase in Washington State: Recommendations from a Technical Advisory Group, pp. 5-6 (Summer 1995)).

Underreporting of pesticide related illnesses is also the result of frequent misdiagnosis. Many incidents of mild to moderate organophosphate poisoning may go undetected because symptoms are non-specific and may be confused with flu-like conditions. Through a national

interagency initiative entitled, “National Strategies for Health Care Providers: Pesticide Initiative,” the EPA and the National Environmental Education and Training Foundation highlighted this problem. Based on states which required reporting of pesticide poisonings, EPA estimates in its Implementation Plan for this initiative that while approximately 250-500 physician-diagnosed cases occur per 100,000 agricultural workers, the number of actual cases would be twice as high if undiagnosed and unreported cases were included. (The National Environmental Education and Training Program, “Implementation Plan; National Strategies for Health Care Providers: Pesticide Initiative.” March 2002, pg. 17)

E. The EPA Underestimates Workers’ Exposure to Methyl Parathion by Relying on Faulty Assumptions

The EPA underestimates workers’ exposure to methyl parathion – and hence improperly weighs the costs and benefits of using the pesticide -- by relying on faulty assumptions. The EPA’s risk assessment for handlers is predicated on the assumption that workers are exposed to methyl parathion for only 8 hours per day. This assumption does not comport with farm labor reality. According to the National Agricultural Worker Survey (NAWS), conducted by the U.S. Department of Labor, the majority of farmworkers (56%) worked on average between 30 and 50 hours per week (in 1997-98); and 15% worked an average of more than 50 hours per week. (U.S. Department of Labor, Office of Assistant Secretary for Policy, Findings from the National Agricultural Workers Survey 1997-98, Research Paper No. 8 March 2000 at p. 32). Exposure to methyl parathion, however, continues until farmworkers bathe and change out of contaminated clothing. Since the vast majority of farms do not provide showers for their handlers at the job site, exposure for all handlers continues until they return to their living quarters, bathe and change clothes. One study of settled farmworkers in the Yakima Valley found that only 50% of agricultural workers bathed and changed clothes as soon as they returned home. (Fred Hutchinson Cancer Research Center and University of Washington, For Healthy Kids 1999 Yakima Valley Survey Report at 9.) When only half the settled workers don’t bathe immediately, that indicates that among migrant workers who may live in shacks, their cars or even the fields – and often lack ready access to shower facilities – the number who wear their clothes all evening before changing would be far higher. In addition, some farmworkers sleep in their work clothes and/or wear the same contaminated clothing all week long. The unfortunate reality is that farmworkers are often too poor to have multiple work outfits, and their living conditions do not readily allow them to wash their clothes during the workweek. Additionally, when evaluating the true health risks to handlers, the EPA should consider that in many instances PPE or engineering controls are not provided or may not work properly (e.g. on hot days a handler may open the windows of a closed cab). Thus, in real terms, the risk to handlers will often exceed the risks demonstrated by the MOE calculations

F. The EPA Should Add An Additional Margin of Safety to Protect Farmworker Fetuses, Infants and Children

Although the EPA added an extra margin of safety when evaluating dietary risk, it erroneously failed to add a 10-fold margin of safety when evaluating risks to farmworker children. An additional 10-fold margin of safety should be added to protect the unborn children

of pregnant farmworkers because these babies, who are not employees, may be exposed to this extremely potent neurotoxin at a very vulnerable stage of their development.

In setting, modifying or revoking tolerances, the FQPA directs the EPA to consider, *inter alia*, “available information concerning the ... effects of *in utero* exposure to pesticide chemicals.” § 408(b)(2)(C)(I)(II). In the case of threshold effects, the FQPA also directs the EPA to add an additional 10-fold (or other) margin of safety for infants and children “to take into account potential pre- and post-natal toxicity and completeness of the data with respect to exposure and toxicity to infants and children.” § 408(b)(2)(C)(ii). In explaining its method of implementing the 10-fold safety factor to the SAP, the EPA expressly state that it would not consider pre-natal exposures to the unborn children of pregnant farmworker women because such exposures are “occupational” and hence, not within the contemplation of the FQPA. See Presentation for FIFRA Scientific Advisory Panel by Office of Pesticide Programs, Health Effects Division on FQPA Safety Factor for Infants and Children (March, 1998). The statutory language that directs the EPA to consider the effects of “*in utero*” or “pre-natal” exposures to pesticides makes no exception for occupational exposures. Nor could such an exception make sense since it is patent that a fetus or unborn child cannot work.

Indeed, in an analogous context, the California Supreme Court held that a child, who was injured *in utero* when his pregnant mother was exposed to carbon monoxide at work, could not be prevented from filing suit in tort by the workers compensation bar, which prohibits an employee from suing his or her employer. Snyder v. Michael's Stores Inc., 16 Cal.4th 991, 945 P.2d 781, 68 Cal.Rptr.2d 476 (1997). The Court dismissed the notion that the unborn child could be deemed an “employee” as “wholly without merit.” The Court also noted that every other court to consider this question, except one, had reached the same conclusion (and the only exception was a lower California court whose decision was effectively overruled by the Snyder case). Since an unborn child cannot be an “employee,” its pesticide exposure cannot be “occupational.” Thus, any pre-natal exposure to farmworker children must be considered in applying the 10-fold safety factor. As a practical matter, however, the only way to provide a 10-fold margin of safety to a farmworker’s unborn child is to add a 10-fold margin of safety when evaluating margins of exposure for pregnant farmworker women. For this reason, a 10-fold margin of safety must be added when evaluating the occupational risks from methyl parathion.

This approach is also warranted because farmworkers often bring young children into the fields with them, because of the lack of affordable day care. The U.S. General Accounting Office (GAO) has reported that seven percent of farmworkers with children five years or younger took their children with them, at least sometimes, when they worked. (U.S. General Accounting Office, "Pesticides: Improvements Needed to Ensure the Safety of Farmworkers and their Children." (March 14, 2000)). Additionally, GAO estimated there are some 290,000 children ages 14-17 who are farmworkers in the United States. This figure likely under represents the true number of young agricultural laborers. Because children can legally begin working on farms as young as 12 years old and the data doesn't report the figures until age 14, GAO's figure is likely much smaller than the true figure. A study of migrant children in western New York found that despite legal prohibitions against working with hazardous substances, 10% of children under age 18 reported mixing or applying pesticides. (Pollack, S., et al., “Pesticide Exposure and Working Conditions among Migrant Farmworker Children in Western New York State.”

American Public Health Association Annual Meeting Abstracts, (1990)). Additionally, 40% of the children had entered fields that were still wet with pesticides, 40% had been sprayed with pesticides while in the fields, and 15% reported symptoms of organophosphate poisoning although none received medical attention. Thus this additional 10-fold margin of safety is also warranted to protect other children who may accompany their parents to work in fields which have been treated with methyl parathion.

II. EPA Also Underestimated the Health Risks From Methyl Parathion by Failing to Consider Residential Exposures

In weighing the costs and benefits associated with the use of methyl parathion, the EPA underestimated the health risks by failing to take into account residential exposures. The FQPA requires that, in setting pesticide tolerances, the EPA must conduct an aggregate analysis of all non-occupational routes of exposure to methyl parathion, including food, water, air, and residential exposure. FQPA, § 408(b)(2)(D)(vi). EPA maintains that because methyl parathion is not registered for residential use, it must only consider food and water as contributors to aggregate chronic risk. EPA's decision to disregard residential exposure to methyl parathion is erroneous and must be amended. Methyl parathion, like other agricultural use pesticides, enters the home environment by virtue of drift onto labor camps and rural residential areas, through take-home exposure on soiled clothing, and by being tracked in on contaminated shoes. These residues can and have been found and measured in the household dust of agricultural families or rural residents, and on the hands of children living on or near farms. The available information on these exposures must be considered and aggregated as part of the FQPA equation.

Several studies have demonstrated that pesticides sprayed in agricultural fields end up in nearby outside play areas and the household dust of homes in which farmworker children reside. For example, a study in Washington State tested soil from outdoor play areas and dust from indoor play areas of 26 farming families, 22 farmworker families and 11 non-agricultural families, each of which had at least one child less than seven years old. N.J. (Simcox et al., "Pesticides in Household Dust and Soil: Exposure Pathways for Children of Agricultural Families," *Environmental Health Perspectives* I, vol. 103, pp. 1126-1134 (1995)). An analysis was performed to detect the presence and concentration of four organophosphate insecticides: azinphos-methyl, phosmet, chlorpyrifos and ethyl parathion. Residues found in household dust and soil were almost exclusively due to agricultural use, rather than home use. One or more of the four pesticides was found in 58% of the soil samples outside the homes of the agricultural families as compared to 18% of non-agricultural homes. Household dust in 100% of the homes of farm children had at least one of the four target pesticides and all four target pesticides were found in 62% of these households. By comparison, only 9% of non-agricultural homes had all four pesticides. Concentrations of pesticides were also higher in farm, rather than non-farm households. Interestingly, however, even non-farm homes in agricultural areas had measurable pesticides residues, which were probably due to drift

Pesticide drift is a significant problem. A review of pesticide incident data from California reveals that approximately 20% of pesticide incidents found to be possible, probable or definite each year are caused by pesticide drift.

Finally, the EPA should recognize that methyl parathion has been widely used inside homes, even though such usage is prohibited. Hundreds of homes have been contaminated by the use of this product and several people have even died as a result. In regulating methyl parathion, the EPA should recognize all common uses and sources of residential exposure to the product-whether or not they are sanctioned by the registrant.

III. Conclusion

In sum, the EPA determination that the benefits of using methyl parathion on 21 crops outweighs the risks is fatally flawed by its failure to assess the true magnitude of the health risks associated with use of this product. When the health risks are fully taken into account, it is clear that these unacceptable risks to farmworkers and their children outweigh the benefits to growers, who can use alternative products.

Sincerely,

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