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

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OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Memorandum

From: Michael Patterson, Ph. D. /s/ 12-1-03
Environmental Field Branch
Field and External Affairs Division

To: Arthur-Jean Williams, Chief
Environmental Field Branch
Field and External Affairs Division

Subject: Effects Determination for Disulfoton for Pacific Anadromous Salmonids

I reviewed data and other information for disulfoton, an organophosphate insecticide named by the Washington Toxics Coalition (WTC) and included in the court order for 'effects determinations' and potential consultation with the National Marine Fisheries Service. Disulfoton is registered nationally for use on a variety of field crops, vegetable crops, ornamentals and shrubs. It is used both in agricultural and residential settings. The Environmental Fate and Effects Division (EFED) has completed an environmental risk assessment for Reregistration Eligibility Decision (RED) which concludes that while disulfoton does not exhibit the high level of toxicity to fish that would result in a concern for direct, acute effects, the high toxicity to organisms that serve as food for the Pacific salmon and steelhead warrants consideration. I have adapted the more general findings of the EFED assessment to develop an analysis of the potential for effects on endangered and threatened Pacific salmon and steelhead Evolutionarily Significant Units (ESUs) from current uses in California and the Pacific Northwest.

Based on the environmental risk assessment and additional considerations indicated in my analysis and other attached or referenced materials, I conclude that the use of disulfoton may affect 6 salmon and steelhead ESUs, may affect but is not likely to adversely affect 9 ESUs, and will have no effect on 11 ESUs. My determinations are based on the known or potential use of disulfoton on crops within habitats and migration corridors of each ESU, the acute risk of disulfoton to endangered fish, and the potential for indirect effects due to acute and chronic risks to their aquatic invertebrate food supply.

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