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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Memorandum

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Environmental Field Branch
Field and External Affairs Division

To: Arthur-Jean Williams, Chief
Environmental Field Branch
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Subject: Effects Determination for Acrolein for Certain Pacific Anadromous Salmonids

We reviewed data and other information for acrolein, a registered aquatic herbicide named in a Consent Decree with the Californians for Alternatives to Toxics and allies to be evaluated for potential consultation with the National Marine Fisheries Service. Although the Consent Decree requires an evaluation of effects on only three Evolutionarily Significant Units (ESUs) of salmon and steelhead, we opted to evaluate all eleven ESUs (ten listed and one proposed) that occur in California, including the Southern Oregon/Northern California Coho Salmon ESU (which was named in the Consent Decree), which also extends into Oregon. We considered including the other ESUs in the Pacific Northwest, but we found that the states are developing and/or compiling information that will enhance our assessment. Therefore, we opted to defer the evaluation for these additional ESUs until such time as this information can be used.

Unlike other pesticides evaluated for effects on listed salmon and steelhead, there is no Reregistration Eligibility Decision (RED) for acrolein; it is scheduled for 2005. In addition, there is no recent review by the Environmental Fate and Effects Division. Therefore, we developed an independent risk assessment for the aquatic risks of acrolein from its registered use to control weeds in irrigation supply canals. The assessment was basically in accordance with typical EFED procedures, but because of the high volatility and atypical application methods, some of the standard procedures could not be used, e.g., there is no way to model estimated environmental concentrations outside of the treated canals. As a result, the typical "risk

quotients" could not be calculated. Nevertheless, the aquatic toxicity of acrolein is very high and there is a potential for risks to listed aquatic species in the form of direct toxicity. Use according to the label should preclude effects on listed salmon and steelhead. However, there are sufficient uncertainties that we were only able to make unequivocal "no effect" determinations for the five ESUs where it is not used or is not used in irrigation supply canals. In the other six ESUs, we consider the labeled use to be very unlikely to cause effects, but could only reach a "may affect, but not likely to adversely affect" finding. We are not recommending additional protective measures because we believe that the potential effects are unlikely.

attachments