

REEVALUATION OF HEAVY DUTY WOOD PRESERVATIVES

Karen E. McCullagh, Associate Director, Plant Industry Directorate,
Agriculture and Agrifood Canada, Ottawa, Ont. K1A 0C6

The regulation of pesticides in Canada is carried out under the authority of the Pest Control Products Act. Products which control, prevent, destroy, mitigate, attract or repel a pest are required to undergo a presale assessment for safety, merit and value. This review will determine whether a product, when used according to label directions, can be used both safely and will be effective for controlling pest(s). Three federal government departments, Health and Welfare Canada, Environment Canada and Agriculture and Agrifood Canada, are routinely involved in making timely and acceptable regulatory decisions on pesticides.

There are several ways in which pesticides are regulated. The first time a product is reviewed it could be registered for up to 5 years. At the end of each five year period, pesticide manufacturers will be asked to renew their license for another 5 years. Periodically, new information or concerns come to the attention of regulatory officials. Depending on the nature of this new information, it may be appropriate to conduct a special review of some aspect of a pesticide registration, e.g. the effect of use on fresh water ecosystems. In other cases, it will be appropriate to do a complete reassessment or reevaluation of a pesticide because of the possibility of a risk of harm to humans and the environment. Presently there are approximately 20 pesticide active ingredients (of the total 500) being reevaluated.

The Canadian reevaluation process has been organized into eight (8) steps.

1. **Prioritization**
2. **Confirmation of Priority**
3. **Announcement**
4. **Identify and Assess Risk(s) and Value(s)**
5. **Discussion of Facts and Regulatory Options**
6. **Consultation with Stakeholders**
7. **Make Decision and Inform Interested Parties**
8. **Implementation of Decision**

Prioritization

In the mid 1980's it became clear that an update to the existing approach to reevaluation was in order. Federal pesticide regulatory officials from all departments worked together and developed the criteria that would be used to decide how to rank all 500 active ingredients for priority for reevaluation. The priority was in effect a determination of how soon an active would be reevaluated based on a) the age of the scientific database which supported the assessment of safety, merit and value; b) the completeness of the database; c) any special known concerns or hazards; d) possibility of exposure through food; e) possibility of occupational and/or bystander exposure; f) possibility of environmental exposure; g) the extent and/or volume of product used.

A document (R-1-226) was published in May, 1986 which discussed the ranking of pesticide active ingredients and the process used in ranking products. Of the 46 total clusters of actives, this same document ranked the heavy duty wood preservatives at 6th and 9th in order of priority.

Confirmation of Priority

This second step in the reevaluation process involves a review of the resources required to manage or conduct the reevaluation. Confirmation also entails a review of current information available to regulatory officials to determine whether, since 1986, a revision to the priority is in order eg. significant reduction to the extent of use.

Announcement

In the third step, federal pesticide officials announce, in a public document, that a reevaluation of the active ingredient(s) is planned. This announcement document includes a rationale for conducting the reevaluation and generally provides a summary of the uses for the active. The summary of uses is based on information from current labels.

Manufacturers of pesticide products are asked to provide, in the initial round, updated scientific data within a specific timeframe.

On July 2, 1992, the document A92-02 entitled "Re-evaluation of Heavy Duty Wood Preservatives", was published. It explained that for the active ingredients identified, only preservatives for long term wood preservation that were applied under pressure or applied thermally would be re-evaluated.

Fifteen manufacturers of active ingredient, including Canadian and non-Canadian sources, have indicated an interest in supporting the registrations of their product. In January 1993, these companies provided scientific data to Canadian regulatory officials to begin the process of identification and assessment of risk(s) and value.

The *nine (9) active ingredients* affected are:

- Arsenic Pentoxide
- Chromic Acid
- Cupric Oxide

- Creosote
- Pentachlorophenol
- Copper Naphthenate
- Copper-8-Quinolinolate
- Zinc Naphthenate
- Disodium Octaborate Tetrahydrate or Borax

The *rationale* for re-evaluation is the following:

- the re-evaluation of penta is underway, this is the next phase
- the scientific database does not meet present standards
- some actives are capable of causing tumours
- products and treated wood are widely used
- products are persistent in the environment
- actives ranked 6th and 9th in priority

Identify and Assess the Risk(s) and Value

During this step manufacturers of the active ingredients are asked to submit updated information that they may not have provided to Canadian pesticide regulatory officials. These data are used to conduct an assessment of safety, merit and value under the Pest Control Products Act and Regulation and make a decision regarding the registration of each wood preservative. Environment Canada and Health Canada will review this information and identify what data gaps exist i.e. what data has not been provided.

These same regulatory officials will, in consultation with Agriculture and Agrifood Canada, identify and propose data needs i.e. what information will be needed to conduct

an adequate assessment of risk. The scientific data to conduct this evaluation will most likely entail some environmental chemistry and toxicology as well as a comprehensive study of human toxicology. Some assessment of occupational exposure is likely to be required in order to come to the conclusion of whether the continued use of a wood preservative represents an unacceptable risk of harm.

The three regulatory departments (Health Canada, Environment Canada and Agriculture and Agrifood Canada) have agreed to explore the possibility of harmonizing regulatory approaches and possibly requirements with those of the United States. An evaluation of product performance as part of the value assessment is confirmed by officials at Agriculture and Agrifood Canada. Manufacturers are asked to develop and submit the needed scientific studies which, when completed, will often take many months to review.

Upcoming Actions for the Re-evaluation of Heavy Duty Wood Preservative

- Complete the identification and assessment of risk(s) and value(s)
- Prepare document for discussion
- Confirm identification of stakeholders i.e. for the purpose of consultation
- Consult with stakeholders (as per step 5 of the re-evaluation process)

The process of re-evaluating these nine active ingredients will be likely take a considerable amount of time to complete. It is not easy to predict when it will be finished because the date of completion will depend on many factors including the amount of information to review and amount of time required to provide it. A clearer prediction as to when final decisions will be possible once the data needs are identified.

At the end of re-evaluation, there are many possible outcomes. Some of the possibilities are: maintain product registrations as is; cancel or suspend registrations and therefore in effect take them off the market; phase out the use of a product; reduce or limit use; revise label recommendations for personal/environmental protection based on the newly provided data; or consider possibilities for alternate technology that will allow for continued use and result in a required reduction in risk. There are other possible outcomes not mentioned here, that may emerge as the process of re-evaluation progresses.

The destiny of this group of wood preservatives is of interest to the wood products industry - manufacturers as well as users. Consequently, federal pesticide regulatory officials will in provide current information on this re-evaluation and will be striving to develop a timely and acceptable decision at the end of the reevaluation process.