A. STATEMENT OF THE CASE

I. SUBJECT MATTER

The subject matter of this consolidated hearing is one of the most controversial in circulation; DDT and what should be done with it. DDT is a well-known insecticide in practically every part of the world. It is of special concern because it is the most widely-used pesticide. The two most common allegations against DDT use are that it is detrimental to many non-target organisms, especially birds, fish, and crustaceans, and that it is possibly a carcinogen to man. On the other hand, precipitous removal of DDT from interstate commerce could seriously disrupt public health programs and agricultural yield, and probably would force widespread resort to highly toxic replacements. The need to know makes it appropriate to examine the status of DDT and to make administrative determinations therefrom.

The full professional name of DDT is 1,1,1-trichloro-2,2-bis (p-chlorophenyl) ethane. Technical DDT is composed of approximately 75% p,p'-DDT isomer and 20% o,p'-DDT isomer and 5% other isomers and other compounds. The active insecticidal ingredient in DDT formulations is the p,p'-DDT isomer. The melting point of that isomer is 108.5° C. The molecular weight of DDT is 354.5 grams. Vapor pressure of DDT is 1.0×10^{-7} mm. mecury at 20° C. DDT has a water solubility of approximately 1.2 parts per billion. One of the attributes of DDT which make it desirable as an insecticide, is its persistence.

As the testimony demonstrates, the questions raised are not confined to DDT itself. Its metabolites and isomers are question-raisers on their own. The metabolites DDE and DDD (alias TDE) are prominent factors in the pros's-and-con's of this case. In fact, TDE (dichloro diphenyl dichloroethane) was the subject of cancellation notice PR Notice 71-5, one of the three notices under consideration. For ease of reference here, it seems best to use the term DDT to mean, interchangeably, either DDT itself and/or one of its metabolites.

In addition to PR Notice 71-5, which was issued March 18, 1971, as an intention to cancel all products containing TDE, two other notices comprise the aggregate basis for this public hearing (Tr. 1:5): PR Notice 71-3 was issued March 12, 1971, and indicated the cancellation of registrations of certain products bearing directions for use on food in the absence of finite tolerances or exemptions; and PR Notice 71-1 issued January 15, 1971.

PR Notice 71-1 is the most important of the three because it declared a cancellation of the registrations of all products containing DDT not theretofore the subject of a cancellation notice. In a preamble the Notice refers to: the concern of the scientific community for several years over the levels of DDT in the environment; the recent official actions taken to restrict the uses of DDT; and the remand holding of the Circuit Court in Environmental Defense Fund v. Ruckelshaus, 439 F.2d 584 (1971). Cancellation action is based on the determination that continued registration of products

containing DDT is contrary to certain of the misbranding sections of the controlling law.

Copies of PR Notices 71-1, 71-3, and 71-5 are incorporated herein and carried as Attachment A1, A2, and A3.

II. THE PARTIES

This being an adversary proceeding, there are the usual parties: petitioners and respondent; and, in addition, the intervenors. A total of thirty-seven.

The petitioners are those registrants who seasonably filed and prosecuted their objections to the cancellation notices and their requests for a public hearing. These are 1) the Plant Protection Division of the United States Department of Agriculture (USDA) 1/; 2) 27 corporate-registrants, 2/ which for ease of communication are referred to collectively as Group-Petitioners (GP); 3) Wyco, Inc.; 4) the Wallerstein Company; and 5) Stark Brothers Nurseries and Orchards. 3/

The respondent is the Director of the Pesticide Regulation Division of the Environmental Protection Agency (Resp.).

The parties who were given intervenor-status have varied classification:

a) The Secretary of Agriculture (Int.-USDA). His reason for seeking participation, as given in his motion:

> The Secretary is charged with broad responsibilities in connection with the total agribusiness of the Nation, including the attainment of reasonable quantities of food and fiber.

1/ Docket I.F.&R. No. 105.

2/ With an aggregate of 33 actions here. The applicable docket I.F.&R Nos. are: 63, 64, 66, 70, 71, 73, 74, 75, 77, 78, 80, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 100, 101, 102, 103, 107, 148, 209, 121, 184, and 210.

3/ Wyco, docket I.F.&R. No. 96; Wallerstein, docket I.F.&R. No. 106; and Stark Brothers, docket I.F.&R. No. 149, each chose not to actively participate in the presentation of witness testimony; and with the understanding of respondent that each of those cases will be decided individually.

> * * * [illegible] the interests of the Secretary of Agriculture extend beyond those of the [illegible] Protection Division.
>
> * * * Accordingly, the Secretary is desirous of presenting a totally objective analysis of all relevant considerations with respect to the subject of DDT. * * *

b) National Agricultural Chemicals Association (Int.-NACA), a trade organization whose motion reads: 4/

> That the NAC is a membership corporation * * *, the members of which produce and formulate approximately 90 percent of the pest control chemicals used on this country's farms and orchards, and upon the behalf of its members, the NAC takes action in appropriate judicial and regulatory proceedings to promote the orderly administration of the [FIFRA], and other actions under which pesticide and residues of pesticidal chemicals are regulated.

c) H. P. Cannon & Son (Int.-Cannon), not a corporate-registrant, and who sought intervention because:

> [Cannon] will show in these objections that, Although it is not a registrant as to this use of DDT, it has standing to object to cancellation of the registration and to request a public hearing * * *.
>
> Cannon finds itself in the position of being totally unable to obtain sweet peppers for processing on the Delmarva Peninsula unless its growers have available DDT for control of the European corn borer.

d) Eli Lilly and Company (Int.-Lilly), a corporate-registrant not filing seasonably and whose motion states:

> Lilly will be adversely affected by permanent cancellation of TOPOCIDE's(R) registration as a

4/ Int.-NACA took no active part in these proceedings.

result of its loss of ability to market the product. Lilly will not adequately be represented by the present parties; products involved are not comparable.

e) Environmental Defense Fund, Inc.; National Audubon Society; West Michigan Environmental Action Council; and Sierra Club (Int.-EDF et als) who sought to represent the public-interest, and who stated in their motions for intervention:

> In the proceedings before EPA, the Department of Agriculture and the Courts, [EDF, et als] have demonstrated their interest in eliminating the adverse effect on the environment of DDT. Their role in bringing about these cancellation proceedings has been crucial. In addition, they will add considerable depth to the proceedings because of their expertise in crucial areas concerning DDT.

As can be seen from the line-up of the parties, there was a clear division of purpose between the positions taken on each side of the aisle in this hearing: the Respondent and Int.-EDF et als defending the proposed cancellations of DDT registrations; and all other parties opposing the cancellations.

III. THE LAW INVOLVED

1. These cases arise out of and are governed by the Federal Insecticide, Fungicide, and Rodenticide Act (Act) (FIFRA), 61 Stat. 163, as amended (73 Stat. 286; 75 Stat. 18, 42) and particularly by Act of May 12, 1964, (P.L. 88-305, 78 Stat. 190); 7 U.S.C. 135-135k.

The pertinent parts of the Act are:

a. Sec. 2. For the purposes of this Act --

* * * *

z. The term "misbranded" shall apply --

* * * *

(2) to any economic poison --

* * * *

(c) if the labeling accompanying it does not contain directions for use which are necessary and if complied with adequate for the protection of the public;

(d) if the label does not contain a warning or caution statement which may be necessary and if complied with adequate to prevent injury to living man and other vertebrate animals, vegetation, and useful invertebrate animals;

* * * *

(g) if in the case of an insecticide, nematocide, fungicide, or herbicide when used as directed or in accordance with commonly recognized practice it shall be injurious to living man or other vertebrate animals, or vegetation, except weeds, to which it is applied, or to the person applying it;

b. Sec. 4.c.

* * * The Secretary, in accordance with the procedures specified herein, may suspend or cancel the registration of an economic poison whenever it does not appear that the article or its labeling or other material required to be submitted complies with the provisions of this Act. Whenever, the

> Secretary refuses registration of an economic poison or determines that registration of an economic poison should be cancelled, he shall notify the applicant for registration or the registrant of his action and the reasons therefor. Whenever an application for registration is refused, the applicant within thirty days after service of notice of such refusal, may file a petition requesting that the matter be referred to an advisory committee or file objections and request a public hearing in accordance with this section. A cancellation of registration shall be effective thirty days after service of the foregoing notice unless within such time the registrant (1) makes the necessary corrections; (2) files a petition requesting that the matter be referred to an advisory committee; or (3) files objections and requests a public hearing. * * *

Other Pertinent Rules and Regulations and Law Applicable:

2. Interpretations With Respect to Warning, Caution, and Antidote Statements Required To Appear On Labels of Economic Poisons. 40 CFR 162.100 et seq; and particularly Interpretation Number 18, 40 CFR 162.116 (Re-promulgated by Environmental Protection Agency. 36 F. R. 22518, November 25, 1971).

3. Reorganization Plan No. 3 of 1970 (35 F. R. 15623; U.S. Code Cong. & Ad. News, p. 2996, 2998, 91st Cong. 2d Sess., 1970) which transferred the responsibilities for administering FIFRA; and which reads in pertinent part:

> Sec. 1. Establishment of Agency. (a) There is hereby established the Environmental Protection Agency hereinafter referred to as the "Agency". (b) There shall be at the head of the Agency the Administrator of the Environmental Protection Agency, hereinafter referred to as the "Administrator". * * *

Sec. 2. Transfers to Environmental Protection Agency. (a) There is hereby transferred to the Administrator:
* * * *

(8)(1) The functions of the Secretary of Agriculture under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended (7 U.S.C. 135-135k), * * *.

4. Rules Governing the Appointment, Compensation, and Proceedings of an Advisory Committee; and Rules of Practice Governing Hearings Under the Federal Insecticide, Fungicide, and Rodenticide Act. (40 CFR 164.1 et seq.)

5. The Administrative Procedure Act (5 U.S.C. 551, et seq.).

IV. THE ISSUES

The issues that have been tried in this case sound both in law and in equity. The notices of cancellation fall quite squarely in the statutory requirements tailored by certain segments of the "misbranding" section of FIFRA. But equally important, I think, are the equitable considerations of evaluating DDT as to its risks, vis-a-vis its benefits.

The questions to which the evidence was addressed included: (1) The nature and magnitude of the foreseeable hazards associated with DDT; and whether the hazard, if any, is inherent in the normal use of DDT or whether it results primarily from misuse; and (2) the nature of the benefit conferred by the use of DDT; whether its absence would merely cause some inconvenience to would-be users, or would cause serious risk to public health or disruption of important social needs. Likewise, available alternatives and their propensities (Exh. GP-19, Attachment A, post).

In that light, I define the issues here as follows:

A. Is the economic poison DDT, as offered under the registrations involved herein, misbranded because:

[2.z.(2)(c)] - the labeling accompanying it does not contain directions for use which are necessary and if complied with adequate for the protection of the public; or [2.z.(2)(d)] - the label does not contain a warning or caution statement which may be necessary and if complied with adequate to prevent injury to living man and other

vertebrate animals, vegetation, and useful invertebrate animals; or [2.z.(2)(g)] - when used as directed or in accordance with commonly recognized practice it shall be injurious to living man or other vertebrate animals, or vegetation, except weeds, to which it is applied, or to the person applying DDT?

B. Does the use of the economic poison DDT, as offered under the registrations involved herein, produce a risk that unreasonably outweighs its benefit?