Participation in the Development of UK Regulatory Policy for Pesticides

Thesis

Participation in the Development of UK Regulatory Policy for Pesticides

By

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This thesis is the result of my own work
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Abstract

This thesis explores possible constraints on effective participation and the scope of alternatives considered by central policy makers, in a debate on the content of regulations to control pesticides. These aspects of the policy process were examined in a case study of the Food and Environment Protection Act (1985) and the Control of Pesticides Regulations (1986). Four issues affecting manufacture, marketing and use were examined in each of three chronological phases: pre-parliamentary, parliamentary and administrative. Interview data, interest group responses to two Government consultative documents and Hansard material were analysed. Key constraining factors framing the current debate were seen to encompass "situational" factors, which were historical (existing structures, past debates and views of long-standing central participants in the control system) or current (present procedures, time available and views of newer central participants), substantive or procedural. The operation and effects of such framing in the contemporary debate on the chosen issues are discussed.

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List of Abbreviations and Acronyms

AAWNTG	Agricultural and Allied Workers National Trade Group
ABIM	Association of British Insecticide Manufacturers
ABMAC	Association of British Manufacturers of Agricultural Chemicals
ABPI	Association of British Pharmaceutical Industries
ACAO	Agricultural Chemicals Approvals Organisation
ACAS	Agricultural Chemicals Approvals Scheme
ACP	Advisory Committee on Pesticides
ACPOTS	Advisory Committee on Pesticides and Other Toxic Substances
ACPSUAFS	Advisory Committee on Poisonous Substances Used in Agriculture and Food Storage
ACSP	Advisory Council on Scientific Policy
ADAS	Agricultural Development Advisory Service
ADI	Acceptable Daily Intake
AEA	Agricultural Engineers Association
APA	Administrative Procedures Act
ATB	Agricultural Training Board
BAA	British Agrochemicals Association
BASIS	British Agrochemicals Supply Industry Scheme / British Agricultural Standards Inspection Scheme
BBKA	British Bee Keepers Association
BCPC	British Crop Protection Council
BET	Best Environmental Timetable
BIRA	British Institute of Regulatory Affairs
BPCA	British Pest Control Association
BPEO	Best Practicable Environmental Option
BWPA	British Wood Preserving Association
CA	Consumer's Association
Cap	Chapter
CBA	Cost Benefit Analysis
CBI	Confederation of British Industry
CD	Consultative Document
CDA	Controlled Droplet Application
CDEP	Central Directorate of Environmental Protection
CFoI	Campaign for Freedom of Information
CIA	Chemical Industries Association
CLA	Country Landowners Association
COP	Code of Practice
COPA	Control of Pollution Act
COPR	Control of Pesticides Regulations
CPLDS	Control of Packaging and Labelling of Dangerous Substances Regulations
CPPAS	Crop Protection Products Approvals Scheme
CSA	Consumer Safety Act
CTSCG	Committee on Toxic Substances in Consumer Goods
DDT	DichloroDiphenylTrichloroethane
DHSS	Department of Health and Social Security
DoE	Department of the Environment
DoEm	Department of Employment
DNOC	DiNitroOrthoCresol
DTI	Department of Trade and Industry

EC	European Commission
EDM	Early Day Motion
EEC	European Economic Community
ENDS	Environmental Data Services
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organisation
FEPA	Food and Environment Protection Act
FEPB	Food and Environment Protection Bill
FFPS	Fauna and Flora Preservation Society
FGCA	Farm and Garden Chemicals Act
FoE	Friends of the Earth
GA	Green Alliance
GMAG	Genetic Manipulation Advisory Group
GMBU	General Municipal and Boilermakers Union
HC	House of Commons
HCDebs	House of Commons Debates
HC-2R	House of Commons Second Reading
HC-MR	House of Commons Money Resolution
HC-Ctte	House of Commons Standing Committee H.
HC-Rpt1	House of Commons Report Day One
HC-Rpt2	House of Commons Report Day Two
HC-3R	House of Commons Third Reading
HL	House of Lords
HLDebs	House of Lords Debates
HL-1R	House of Lords - First Reading
HL-2R	House of Lords - Second Reading
HL-Ctte1	House of Lords Committee Day One
HL-Ctte2	House of Lords Committee Day Two
HL-Rpt	House of Lords Report
HL-3R	House of Lords Third Reading
HL-CA	House of Lords Consideration of Commons Amendments
HSE	Health and Safety Executive
HSWA	Health and Safety at Work Etc. Act
IAPI	Industrial Air Pollution Inspectorate
IBT	Industrial Biotest Laboratories
ICI	Imperial Chemical Industries
IEHO	Institute of Environmental Health Officers
IPM	Integrated Pest Management
IRPTC	International Register for Potentially Toxic Chemicals
ITE	Institute of Terrestrial Ecology
LFC	London Food Commission
MAF	Ministry of Agriculture and Fisheries
MAFF	Ministry of Agriculture, Fisheries and Food
MNC	Multinational Company
MP	Member of Parliament
MRL	Maximum Residue Level
MTEPD	Medical Toxicology and Environmental Protection Division

NAAC	National Association of Agricultural Contractors
NCC	Nature Conservancy Council
NFU	National Farmers Union
NGO	Non-Governmental Organisation
NOAH	National Organisation for Animal Health
NPTC	National Proficiency Tests Council
NSCA	National Society for Clean Air
OC	Organochlorine
OJEC	Official Journal of the European Community
OOP	Outline of Proposals
OSA	Official Secrets Act
PAN	Pesticides Action Network
PHIPCO	Public Health and Industrial Pesticides Council
PIC	Prior Informed Consent
PICD	Pesticides Infestation and Control Division
PMA	Paint Manufacturers Association
	Partisan Mutual Adjustment
PQ	Parliamentary Question
PRSD	Pesticides Registration and Surveillance Department
PSPS	Pesticides Safety Precautions Scheme
RA	Ramblers Association
RCEP	Royal Commission on Environmental Pollution
RPAR	Rebuttable Presumption Against Registration
RS	Royal Society
RSG	Research Study Group
RSNC	Royal Society for Nature Conservation
RSPB	Royal Society for the Protection of Birds
SA	Soil Association
SCI	Society of Chemical Industry
SEU	Subjective Expected Utility
SI	Statutory Instrument
SLC	Successive Limited Comparison
SSC	Scientific Sub-Committee
TGWU	Transport and General Workers Union
TLV	Threshold Limit Value
UKASTA	United Kingdom Agricultural Supply Trade Association
ULV	Ultra Low Volume
UN	United Nations
UNEP	United Nations Environment Program
WCA	Wildlife and Countryside Act
WHO	World Health Organisation
WIIS	Wildlife Incident Investigation Scheme
WL	Wildlife Link
WPPR	Working Party on Pesticides Residues

List of Relevant Statutes

Agriculture (Poisonous Substances) Act 1952. Cap 60.

Animals (Cruel Poisons) Act 1962. Cap 26.

Classification, Packaging and Labelling of Dangerous Substances Regulations 1984. SI 1244.

Consumer Safety Act 1978. Cap 38.

Control of Pesticides Regulations 1986. SI 1510.

Control of Pollution Act 1974. Cap 40.

Control of Pollution (Special Waste) Regulations 1980. SI 1709.

Disposal of Poisonous Wastes Act 1972. Cap 21.

Farm and Garden Chemicals Act 1967. Cap 50.

Farm and Garden Chemicals Regulations 1971. SI 729.

Food Act 1984. Cap 30.

Food and Drugs Act 1955. Cap 16 (r).

Food and Environment Protection Act 1985. Cap 48.

Health and Safety at Work etc. Act 1974. Cap 37.

Medicines Act 1968. Cap 67.

Official Secrets Act 1939. Cap 121(r).

Official Secrets Act 1989. Cap 6.

Pesticides (Fees and Enforcement) Act 1989. Cap 27.

Pesticides (Maximum Residue Levels in Food) Regulations 1988. SI 1378.

Poisonous Substances in Agriculture Regulations 1984. SI 1114(r).

Poisonous Substances in Agriculture Regulations 1988. SI 1657.

Restrictive Trade Practices Act 1976. Cap 34.

Wildlife and Countryside Act 1981. Cap 69(r).

Wildlife and Countryside (Amendment) Act 1985. Cap 31.

1. Introduction

This thesis is a case study of participation in the development of policy for regulatory control. Its subject is a part of pollution control which affects the chemical and agricultural industries, namely the regulation of pesticides. Not all Government policies become the subject of legislation, but here the focus is on the development of the debate and decisions on a number of pesticide control issues which helped to shape pesticides policy during the legislative process. The statutes concerned are The Food and Environment Protection Act 1985 (Cap 48) (FEPA) and The Control of Pesticides Regulations 1986 (SI 1510) (COPR). Part III of the FEPA, "Control of Pesticides etc." dealt with the production, distribution and use of pesticides in the UK, and placed the control of pesticides on a statutory basis, whereas before it had been largely voluntary.

This thesis investigates styles of decision making and the effectiveness of participation in the policy process, in an area which already boasted a large number of existing controls. The impetus to move to a statutory system arose as a reaction to the unacceptability of some of these existing controls, and the ineffectiveness of others. Central policy makers can incorporate a range of rationalities or worldviews, (or - to depoliticize - alternatives) into their decision making, and therefore influence the effectiveness of participation by less central interests. Their capability to do so is in turn explained in terms of situational constraints or limitations on them. These consist of a number of substantive factors (to do with pesticides issues), historical or more proximate to the current debate; and concurrent non-substantive factors such as formal or informal procedures or strategies. These factors and their possible modes of operation are elaborated in Chapter 3, where the theoretical background is described, drawing on the literature on policy making and participation. Historical substantive factors are described in the background to the current debate given in Chapters 2 and 5, respectively. Procedural factors concurrent to the substantive debate are given a section of each of Chapters 6, 7 and 8.

Chapter 2 introduces historical factors in terms of a chronology of past pesticide control debates and decisions, particularly the debate on the possibility of statutory controls up to 1979; and the participants in the latter. Chapter 5 deals with the immediate context of, and impetus for, change from voluntary to statutory controls, from 1979 to early 1984 when the decision to legislate was taken.

Chapters 6, 7 and 8 constitute the centre of the thesis, where the evolution of debates (evidence, argument and decisions) on chosen issues are elaborated chronologically. They are bounded by the stages of the legislative process: the pre-parliamentary phase, starting with the publication of the proposals for legislation, from May - November 1984; the parliamentary phase, starting with the publication of the Food and Environment Protection Bill, from November 1984 - July 1985; and the

administrative phase, which includes the consultation on the regulations and is followed up to the publication of the first set of regulations, from July 1985 - October 1986. These chapters deal with the evolution of policy objectives, the relevant evidence presented on the chosen issues, and policy developments and decisions on the latter.

The issues identified to illustrate differences in policy making and participation fall into four areas: the application of the pre-existing pesticides registration scheme to all suppliers and the rapid registration scheme for identical imports; the data requirements of the registration process; the conditions on pesticide use set at registration, specifically as regards minor uses; and conditions on use set outside registration, specifically the training of users.

The first three areas already had substantial but varying degrees of control, or practices, in place. The last had no controls associated with it. The development of debates and decisions on these issues was followed to ascertain the impact of such constraints on the range of alternatives entertained by central policy makers, and the range of views accommodated, the effectiveness of participation and the participative legitimacy of the policy process. The origin and fate of the issues could then be related to the degree of compatibility with previous controls.

The currency of "alternatives" is used in explaining the relationships between situational factors, policy making style and participation (facilitated or constrained by policy making style, selectively or generally).

Explanations of the policy process draw on the decision making literature. Policy making is often generalised as policy makers formulating very small changes and considering a very limited number of alternatives (incrementalism) as a reaction to a complex problem (Lindblom, 1965). Influencing the numbers and kinds of alternatives considered by central policy makers must be the generalised unformulated aim of sectoral participants. With respect to pre-existing situational factors, the alternatives favoured could range from a wish to conserve the *status quo* in its entirety with no additional controls, to a wish to include a large number of radical changes to the *status quo*, plus additional controls affecting all sectors. By the same token, central policy makers, acting under constraints (which may include sectoral favouritism or wider ideological principles) may adopt a position between conservatism and radicalism which selects certain alternatives for consideration. Their receptivity to other alternatives is thereby hampered.

The thesis investigates where the goals and alternatives considered arose from; why certain goals and alternatives inherited from the past were often unquestioningly the focus of debate; how this set the tone of the debate; and the source and consequences of any tendencies to favour the interests of particular sectors.

In conclusion, the thesis attempts to evaluate what scope exists for politically "rational" decision making entailing wide participation in regulatory policy making (Chapter 9).

The timing of the pesticides legislation offered an ideal opportunity to study policy formation as it was taking place, and while details were still relatively fresh in the minds of key participants in the legislative process. An offer to work as a research assistant during the passage of the Bill in the House of Commons was accepted, and this served as an intensive introduction to the participants and issues involved, and the nature and scope of their interactions. Access to civil servants in Government departments was facilitated by a senior member of the Ministry of Agriculture, Fisheries and Food's Pesticides and Infestation Control Division (MAFF; PICD). The time constraints of legislation and regulation, the limited opportunity for public participation, and the inscrutability and informality of many executive processes dealing with delegated legislation, delimit unrepresentative windows through which researchers may normally view policy making. In official documents which are made public and in parliamentary records certain issues may be elevated in importance for political reasons. Real and apparent concerns, policies, or implementation priorities may be confused with one another. Policy making may also be distorted by some issues being in a greater state of decidedness than is openly admitted.

Such problems can be alleviated to some extent by carrying out research as the legislation unfolds, although they can never be entirely resolved. However the intensive telescoped nature of the legislative process facilitates study by providing a higher degree of focus and contrast than is usually possible in other contexts. In the case of FEPA, resolution was particularly sharp in the absence of major party-political considerations, and because the times from the decision to legislate to primary legislation and from primary to secondary legislation were relatively short.

As concerns the type of policy research, the thesis is a descriptive study of the policy process, rather than policy outcomes, and of policy design or shaping (up to the decision on the selection of alternatives) rather than policy implementation. It examines how policies are made through focussing on the characteristics of issues, the political setting of issues, and the debate on issues involving the views of different participants at each stage. The thesis could be described as one type of "policy analysis". However this term is often reserved for prescriptive activities so a better classification is "policy studies", indicating an essentially descriptive or explanatory set of concerns (Hogwood and Gunn, 1984). As the study emphasises the complexity of policy making and some of the constraints on alternatives for making policy, it elucidates some constraints upon more prescriptive ventures, especially those which try to approximate ideas of rationality (both economic and political). It does not however deal explicitly with models of rational decision making.

It is also not concerned with the descriptive form of policy analysis found in political science (Mood, 1983), which focuses on the *strategies* employed by some participants in bringing issues to the attention of decision taking participants more central to policy shaping. In that some of the constraints to participation are non-

substantive, the study has some links with procedure studies in public administration which concentrate on the formal procedures of government in policy making. However more emphasis is laid here on the receptive access participants felt they had, either formally or informally, and other informal Government arrangements affecting the quality of debate.

The thesis is case study based and qualitative. The main effort in primary data collection was the conduct of open-ended semi-structured interviews with the civil servants involved (administrative and scientific), agricultural and agrochemical industry representatives, and environmental, consumer and developmental public interest groups. These data, plus private written representations on the proposals for legislation and for regulations comprise the less generally accessible sources of information. In addition, analysis of parliamentary debates was very important for the presentation of a complete picture. The methods employed in data collection and the deployment of data are reported in Chapter 4.

2. Pre-Existing Substantive Factors: UK Pesticide Controls

In 1984 there was an apparently precipitate Government policy reversal. Having maintained a largely voluntary position on and system for the control of pesticide production, distribution and use since 1972 and reaffirming this as a policy position in 1983, the Government announced that it would introduce legislation at the earliest opportunity. The circumstances immediately surrounding this change are of central interest to this thesis, providing the context within which policy making for pesticide control took place, and will be dealt with in detail in Chapter 5. In this chapter the longer-term historical context which contributed to the climate of change up to 1979 is described, helping to locate in time the contemporary policy debate dealt with in chapters 6 - 8. Such history allows causes and effects, continuities, discontinuities and sources of influence to be distinguished. Past events were therefore a crucial influence on pesticide control policy making at the time of the development of FEPA and COPR.

Section 2.1 of this chapter describes the history and evolution of controls over pesticides. The way in which the voluntary agreements, when working effectively, were envisaged to maintain control is discussed in detail, as this both stimulated the perceived need for change and provided the operating framework for the later statutory system.

Section 2.2 deals at a greater level of detail with the historical debate on potential statutory control of pesticides (at this stage more "whether" than "what") and the timing of major events. The documentation of personal views and arguments, in the historical context, also gives important insights into perceptions of the problem at the time of the decision to implement major changes. Viewpoints inherited from the past are used as political tools in such debates. Likewise interpretations of the past are part of the stuff of contemporary political debate (Rhoades, 1986). Section 2.2 therefore attempts to describe the arguments and how they evolved, particularly within the Government, the policy making centre of the pesticide control system. Other major participants in these debates are also considered. Since the 1950's, there have been several brief periods when pressure for the development of statutory regulations increased significantly. At such times events took place in a more public way and in quick succession, and views and perceptions were most vocal and well documented. Particularly important in the debate were the years leading up to the 1972 decision not to develop a statutory system. The views of those involved in this decision can help us to understand the opinions and arguments expressed in the more recent debate in 1984.

Figure 2.1 sets out key dates and decisions up to 1979.

Figure 2.1: Historical Chronology to 1979

1942	Crop Protection Products Approval Scheme established (CPPAS).
1945	Labour Government Elected (May).
1949	Government asks Advisory Committee on Science Policy (ACSP) to investigate controls on the use of toxic substances in consumer goods.
	ACSP sets up Committee on Toxic Substances in Consumer Goods (CTSCG).
	Gowers Committee Recommends legislation requiring agricultural workers to wear protective clothing.
1950	Labour Government re-elected.
	MAF sets up Working Party on Precautionary Measures Against Toxic Substances used in Agriculture (Zuckerman Working Party; ZWP).
1951	CTSCG recommends voluntary co-operation between Government and industry.
	1st ZWP Report recommends powers to enforce worker protection and manufacturer labelling requirements.
	Conservative Government Elected (October).
1952	Agriculture (Poisonous Substances) Act ensures protective clothing for workers.
1953	2nd ZWP Report recommends (a) suppliers notify Government of intention to sell pesticide, providing toxicological data; (b) standing committee of experts to collect data on pesticides, residues and risks to consumers; (c) statutory powers to make regulations to ensure the above.
1954	MAFF appoints Advisory Committee (ACPSUAFS).
	Advisory Committee appoints a scientific sub-committee (SSC).
1955	Food and Drugs Act.
	Trial notification scheme initiated.
	Conservative Government re-elected.
	3rd ZWP Report said statutory powers were not required now. Recommended Advisory Committee additionally to advise on (a) risks to wildlife (b) statutory powers if they became necessary.
1957	Notification of Pesticides Scheme (later called PSPS) formally introduced.
1958	Conservative Government re-elected.

1960 MAFF sets up Research Study Group (RSG) to look into effects of the use of toxic substances in agriculture and food storage.

1961 RSG Report recommends (a) residues surveys (b) review of pesticide research. Says voluntary control measures following ZWP satisfactory.

SSC sets up Residues in Foodstuffs Panel.

1962 Animals (Cruel Poisons) Act.

Research Committee on Toxic Chemicals set up.

Proposal for new bill with comprehensive powers extending to use fails to be introduced.

1964 Labour Government Elected (October).

Advisory Committee Report recommends (a) OC use restrictions (b) controls of non-agricultural uses of pesticides.

Advisory Committee remit now to include toxic substances other than agricultural pesticides (ACPOTS).

MAFF asks Advisory Committee to consider the desirability of pesticides legislation, specifically the ideas of
(a) approvals for only more safe and efficient products and
(b) fixed residue tolerances.

1966 Labour Government re-elected.

1967 Advisory Committee recommends comprehensive pesticides legislation.

Farm and Garden Chemicals Act can require identification of active ingredient on the label.

1968 Pesticides Bill Drafted which would replace Farm and Garden Chemicals Act and Agriculture (Poisonous Substances) Act.

Medicines Act.

1970 Conservative Government Elected (June).

1971 Pesticides Bill Ready.

RCEP 1st Report supports statutory controls.

Advisory Committee and RCEP discuss legislation and change opinion.

1972 MAFF officially abandons Pesticides Bill.

Britain enters EEC.

Robens Committee recommends legislation for worker health and safety especially toxic substances and labelling.

1973	Farm and Garden Chemicals Regulations bring Act into force.
1974	Labour Government Elected (March).
	RCEP 4th Report affirms statutory scheme not justified because of industry co-operation and the decline in OC use. But legislation should be considered if situation changed.
	DoE (CDEP) recommends non-agricultural pesticides should be subject to same degree on control as agricultural.
1976	Government suggests industry attempt self-regulation.
1978	BASIS set up with sanctions.
	Consumer Safety Act.
1979	Conservative Government elected (May).
	BAA adds sanctions to BASIS scheme.
	Advisory Committee affirms voluntary position.
	RCEP 7th Report says case for statutory control less pressing with BASIS introduction.

2.1 Voluntary Controls Over Pesticides

Before the FEPA (1985; Cap 48) there was no unified legal framework for the control of pesticides. Control of the core activities of pesticide registration and distribution had been tackled by establishing voluntary procedures. Other aspects of control were implicit in primary and secondary legislation dealing with chemicals generally or specific classes of chemical (See Appendix 2.1). Explicit pesticide-specific controls, legal or otherwise, are documented chronologically in section 2.1.1. The voluntary schemes for registration and distribution are described in detail against this background in section 2.1.2. These two sections provide the timescale and descriptive background necessary to understand the debate on a unified statutory scheme. The registration and distribution aspects of control, which remained voluntary, had been the main stumbling block to a unified legal system, and arguments about bringing the voluntary procedures into line were therefore the focus of debate.

2.1.1 A Short History of Pesticide Controls in the UK

Among those actively involved in the control of pesticides, the question of whether pesticides should be used or not has not been an issue. Pesticide technology has been regarded as essential and the issue has instead been the type and the degree of control to which it should be subject.

In the early 1940's pesticides were entirely uncontrolled, and were sold directly to

farmers without safety testing.[1] In 1942, the voluntary Crop Protection Products Approval Scheme (CPPAS) was established. This dealt with approvals for active ingredients, based on efficacy and safety to the crop, including approval for a method of application (RCEP, 1979). The Agricultural Chemicals Approval Scheme (ACAS) was established in 1960 and this replaced the CPPAS.

In 1949 concern over possible toxic hazards associated with the new synthetic insecticides, as well as some new foods, beverages, drugs and cosmetics, prompted the Government to ask the Advisory Council on Scientific Policy (ACSP) to investigate the arrangements within Government for the control of the use of toxic substances in consumer goods. The ACSP established a Committee on Toxic Substances in Consumer Goods (CTSCG) for this purpose (Gillespie, 1977). The CTSCG recommended that voluntary cooperation between Government and industry should be promoted for a trial period (Advisory Council on Scientific Policy, 1951).

Between 1946 and 1950, seven British farm workers had died from dinitro-ortho-cresol (DNOC) poisoning after spraying it as a selective chemical on cereal crops (Bates, 1965). Pressure to remedy this situation was brought to bear by the Gowers Committee report to Parliament in 1949 which recommended the introduction of legislation enabling the Ministry of Agriculture and Fisheries (MAF) to require the provision and wearing of protective clothing intended to protect agricultural workers from certain risks (Secretary of State for the Home Department, 1949). In 1950, in response to a request from MAF, Professor Zuckerman agreed to chair the MAF Working Party on Precautionary Measures Against Toxic Chemicals used in Agriculture. Over the next five years the committee produced three reports (the "Zuckerman Reports"), which established the basis of the British system of pesticide control for the next 30 years.

The first enquiry (MAF, 1951) was limited to the aromatic dinitro herbicides (such as DNOC) and organophosphorous insecticides, and the first recommendations were on the safety of agricultural workers using toxic or harmful substances. A list of protective measures for workers, and labelling requirements for manufacturers was produced, and it was recommended that power to enforce legal provisions should be made available to agricultural departments. This led to the Agriculture (Poisonous Substances) Act 1952 (Cap 60) whose purpose was to protect employees from poisoning by the more dangerous chemicals by ensuring the supply and use of protective equipment (Bates, 1965). The regulations under this Act have been revised on several occasions and are currently in force in the form of the Poisonous Substances in Agriculture Regulations (SI 1984/1114) made under the Health and Safety at Work etc. Act 1974 (Cap 37).

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[1] Interview, MAFF(PRSD), Westoning 11/1/88.

The Working Party's second report (MAF, 1953) on the impact of toxic substances used in agriculture examined the impact of pesticides on the food produced. They found the existing state of affairs unsatisfactory in that: (a) laboratory facilities were inadequate to produce the necessary toxicity data; (b) compounds could be marketed and used without reference to official bodies; (c) officials had no means of obtaining information on the introduction of new pesticides or the extent of their use; and (d) there was little information on chemicals in imported food and a lack of satisfactory sampling and detection methods.

A number of recommendations followed from this investigation. One was that a standing committee of experts should be established to collect the necessary data, to advise Ministers on maximum permissible limits for residues and on risks to consumers, and to consult with unofficial, official and international bodies (like WHO and FAO) with interests in this field. Sheail (1985) notes that the lack of scientific data and the complexity of the issue may have been the most important reasons for the Working Party not recommending any further legislation. This led, in 1954, to the Government appointment of the Advisory Committee on Poisonous Substances Used in Agriculture and Food Storage (ACPSUAFS), later the Advisory Committee on Pesticides and Other Toxic Substances (ACPOTS), and still later simply the Advisory Committee on Pesticides (ACP), to keep the incidence of residues in human foodstuffs under close surveillance. One of its first acts was to appoint a Scientific Subcommittee (SSC) to advise on problems relating to this. Another recommendation in the second report was that manufacturers, importers and distributors of agricultural pesticides should notify Government departments of their intention to sell new chemicals, and furnish toxicological and analytical data, this to be administered by the Ministry of Agriculture, Fisheries and Food (MAFF) as it was now called. This was intended to ensure that only chemicals with sufficient data in these areas could enter the market, and to enable officials to give advice on precautionary measures. The Laboratory of the Government Chemist and other departments were advised to seek methods of estimating microquantities of toxic substances in food. Over the next year the ACPSUAFS played a leading role for Government departments in negotiations over the form of the the proposed scheme with the Association of British Insecticide Manufacturers (ABIM), later the Association of British Manufacturers of Agricultural Chemicals (ABMAC) and from 1969 the British Agrochemicals Association (BAA). A notification procedure was agreed and initiated for two years on a trial basis. Then in 1957, the voluntary "Notification of Pesticides Scheme", a two-page gentleman's agreement, was formally introduced. This was later expanded and renamed the Pesticides Safety Precautions Scheme (PSPS), and formed the centre of the British system of pesticide control (MAFF, 1957).

The third report of the Working Party (MAFF, 1955) expressed a general concern about the effects of pesticides on wild birds and mammals and recommended that the

terms of reference of the ACPSUAFS should be widened to include risks to wildlife and advice on the development of new legislation, should this prove necessary. At this time the concept of "environment" as something to be protected had not developed.[2] In 1959, the SSC set up a Wildlife Panel to consider wildlife data contained in the notification from industry (Papworth, 1969).

In 1960, a research study group under the Chief Scientific Advisor to the Minister of Agriculture was set up to study the need for further research into the effects of the use of toxic chemicals in agriculture and food storage. A major recommendation (MAFF, 1961) was that selective surveys should be carried out on the amounts of residues occurring where pesticides had been applied in commercial practice. A Panel on Residues in Foodstuffs was set up under the SSC to the ACPSUAFS. The ACPSUAFS report of 1964 reviewing the persistent OC pesticides (ACPSUAFS, 1964) showed that these compounds were present in the groups of food examined, and recommended some restrictions in the use of aldrin and dieldrin. A recommendation on the withdrawal of the latter from fertiliser mixes, sheep dips and amateur use seemed likely to provide the biggest reduction in general environmental contamination (Bates, 1965).

A number of incidents involving non-agricultural pesticides stimulated the Advisory Committee to endorse the need to regulate the non-agricultural use of pesticides. At a meeting following the 1964 report it was agreed to widen the Advisory Committee's terms of reference to review all risks which might arise from (1) pesticides (2) potentially toxic chemicals on sale to farmers for veterinary medicines prescribed for use by veterinary surgeons (3) any other potentially toxic chemical referred to the committee by Ministers, and to make recommendations to the Ministers concerned. The Government accepted these proposals, and the new "Advisory Committee on Pesticides and Other Toxic Substances" (ACPOTS) became responsible to the Secretary of State for Education and Science. The scope of the PSPS remained unaltered (Sheail, 1985).

Another recommendation from the Research Study Group was that there was a need for continual review of research problems associated with pesticides. The Research Study Group also concluded that legal and voluntary measures taken following the three Zuckerman Working Party reports had in general been successful in ensuring the safe use of pesticides. A Research Committee on Toxic Chemicals was therefore set up in 1962, and its first report was produced in 1964 (Agricultural Research Council, 1964).

In 1962 legislation directed solely at pesticides was introduced in the form of the Animals (Cruel Poisons) Act 1962 (Cap 26), which provided that the use of any poison to destroy any mammal may be prohibited by regulation.

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[2] Interview, MAFF(PRSD), Westoning 11/1/88.

From the early 1960's until 1972, there was detailed debate on the possibility of statutory controls, and it became Government policy to support the statutory line. The period ended, however, in a policy reversal, and after 1972 the Government remained against statutory controls until 1984, leading to FEPA. This debate, from 1950, and especially from 1964, to 1972, is dealt with in the detail in the following section 2.2.

In 1972 the Robens Committee on Safety and Health at Work reported to Parliament (Secretary Of State For Employment, 1972). It considered that the statutory provisions for the control of toxic substances was not comprehensive; that the system for coordinating information relating to regulatory activities within Government was inadequate; and they recommended the introduction of new legislation concerning worker health and safety with provisions for the prohibition of certain toxic substances, for precautionary measures, for labelling, and for instructions in association with statutory provisions for safety testing. Most of these recommendations were implemented by the Health and Safety at Work etc. Act 1974 (Cap 37) and subsequent regulations. Also in 1972, controls concerned explicitly with the disposal of toxic waste on land were instituted by the Deposit of Poisonous Wastes Act 1972 (Cap 21). This was replaced by the Control of Pollution (Special Waste) Regulations (SI 1980/1709) under the Control of Pollution Act 1974 (Cap 40).

In 1973 the Farm and Garden Chemicals Regulations (SI 1971/729), which were pesticide-specific regulations made under the Farm and Garden Chemicals Act 1967 (Cap 50), came into force. These stated that crop protection products might not be sold without a label bearing the name of the active ingredient.

In December 1976 the Government suggested that the industry should attempt self-regulation with respect to safety of stores, transport, and the advice given on pesticide usage (BASIS, 1985a). This initiative was contained in a letter from MAFF to Mr M.H. Vaughan-Willshaw, director of what is now the United Kingdom Agricultural Supply Trade Association (UKASTA). MAFF discussions with UKASTA (representing merchants), the National Association of Agricultural Contractors (NAAC), representing contractors, and the BAA, representing manufacturers, over the next 15 months led to the formation of the British Agrochemical Supply Industry Scheme (BASIS), now the British Agrochemical Standards Inspection Scheme, in 1978. In 1978 the CSA included a Government amendment specifically designed to deal with the "loophole" where products not safety cleared could be placed on the UK market. The MAFF declared that they could now make regulations on the control of pesticides. However the Act only allowed the banning of specific chemicals.

2.1.2 The Voluntary Agreements and the Maintenance of Controls

The Agricultural Chemicals Approval Scheme (ACAS). The CPPAS (later ACAS) was set up at the behest of Government in 1942, under pressure from the NFU. The ACAS was formally agreed between Government departments and trade associations

representing notifiers. The scheme was concerned only with agricultural chemicals, only agriculture departments were involved, and the trade associations notifying the chemicals were the BAA, NAAC, UKASTA, BPCA and the NFU. The BPCA was included because its members use some agricultural chemicals for some pest control uses, and the NFU because of farmer-members proposing new uses for agricultural chemicals. The scheme was operated by the Agricultural Chemicals Approval Organisation (ACAO), a group of scientists at the MAFF Harpenden laboratories, backed by an advisory committee which granted an approval if it was satisfied that the products did fulfil the claims in respect of performance made on the label of proprietary brands, for example of its efficacy in controlling plant pests and diseases or weed growth. Later, under the PSPS, this was only done on products which had previously been given a clearance on safety grounds by the PSPS. The ACAS thus gave products an official status over and above its safety clearance, for which a charge was made. The purpose of the scheme was said to be "...to enable users to select and advisors to recommend, efficient and appropriate crop protection chemicals and to discourage the use of unsatisfactory products" (MAFF, 1985a). The Royal Commission on Environmental Pollution (RCEP) later considered that since an annual list of approved products was published by ACAS, and since this was the main source of advice on the choice of pesticides, this constituted a considerable incentive for manufacturers to have their products included, and hence to seek the prerequisite PSPS clearance (RCEP, 1979). The annual list also reproduced the BASIS list of registered distributors, who were required to deal only in PSPS cleared chemicals and to give preference to ACAS approved ones. This therefore also provided an incentive for distributors to join BASIS, and hence also supported PSPS and ACAS.

The Pesticides Safety Precautions Scheme. After two years of trials, the Notification of Pesticides Scheme (later the PSPS) was set up in 1957, 12 years after the ACAS, and was the centre of the British pesticide control system (MAFF, 1971). It was a formally negotiated agreement between the Government departments and agencies responsible for agriculture, health and safety,[3] and trade associations representing notifiers of pesticides.[4] The scheme was operated by Government departments with the advice of the ACP, supported by the SSC. Under the scheme, manufacturers provided details of a pesticide's physical, chemical and biological properties, its persistence, mode of action, and breakdown products. Before approval was given Ministers would consult the Advisory Committee and representatives of official departments. The committee drew on the advice of the SSC, made up of scientists with expert knowledge of various aspects of pesticides. The SSC scrutinized

[3] These were the MAFF, the Department of Health and Social Security (DHSS), the Department of the Environment (DoE), the Health and Safety Executive (HSE) under the Department of Employment (DoEm), and equivalent Scottish, Welsh and Northern Irish offices.

[4] These were the BAA, the British Pest Control Association (BPCA) and the British Wood Preserving Association (BWPA).

each pesticide on the basis of the manufacturer's data and by drawing analogies with related compounds. It could advise the ACP that the chemical was too hazardous for use, or that only a provisional clearance should be given so that further field tests could be held (Sheail, 1985). All data from manufacturers and ACP and SSC proceedings were confidential. Government officials from MAFF and the HSE gave a clearance for selling a product, when satisfied that, if their precautionary recommendations were followed, it could be used safely. Prior to selling, a product label reflecting the precautions had to be agreed between the manufacturer and the officials. There was also a provision to review the safe use of a pesticide in the light of new evidence. Once approved, the pesticide could be scrutinized under the ACAS.

The trade associations in turn had made it a condition of membership that their members, prior to marketing, would notify to Government officials, all products containing new chemicals for use in agriculture, horticulture or food storage for clearance as described above. New uses of chemicals already on the market, and new formulations, were treated similarly. So long as trade association members respected the rules of this scheme, price competition from foreign imports was prevented. (Unless a foreign manufacturer went through the testing procedure and received clearance for a product, it would not be offered for sale by members of the association). Since members of any of these groups could propose a new use for a chemical, or sell chemicals in different packages or combinations, "notifiers" included many companies other than manufacturers.

The British Agrochemical Supply Industry Scheme. The BASIS was set up on the 17th of March 1978, at the behest of Government. It involved the BAA, UKASTA and NAAC, all of whom helped formulate the codes of practice (COPs) and the agreements. The products covered by the scheme were those cleared by the PSPS (other than rodenticides and wood preservatives) for professional use in agriculture, horticulture, forestry and seed treatment. In order to register with the scheme, distributors (who included any individual or organisation retailing or applying pesticides under contract) gave a written undertaking to abide by Part II (for distributors), Part III (for seed chemical distributors or appliers) or Part IV (for distributors who were also appliers) of the scheme (BASIS, 1985b). Each part included amongst training and standards clauses, an undertaking:

(a) not to supply crop protection products to other distributors or wholesalers who were not registered under the BASIS scheme (which potentially excluded distributors who sold only PSPS cleared products, as well as those who did not);

(b) to store, supply, recommend or apply only those crop protection products for uses which were currently cleared under the PSPS and to give preference to the sale and recommendation of products approved under the ACAS where these were available and appropriate (motivating BAA members, obliged to subscribe to the PSPS, to also apply for ACAS clearance); and

(c) to provide evidence that the organisation was fully implementing the scheme.

Participants in BASIS (UKASTA, NAAC and BAA) all supported it by making registration with the scheme a condition of membership of the respective trade associations. Members of the BAA additionally undertook that they would only supply distributors registered with BASIS, from January 1979. The sanctions taken by the BAA were entered in the Register of Restrictive Trading Agreements (Registration Number 4726) held by the Office of Fair Trading, as was the BASIS itself. The sanctions BASIS held through its agreement with the BAA enabled some maintenance of control within the industry for a short period prior to FEPA. (It did however exclude some manufacturers and distributors who registered with the PSPS, but not with a trade association or BASIS).

2.2 The Debate on Statutory Controls to 1979

This section deals with pressures to make the existing voluntary scheme for manufacturers and distributors (the PSPS) the basis for a statutory scheme, with or without modification or addition. Since such a change would not be *de novo* the main considerations have often been the disadvantages and advantages that statute would confer on the existing scheme, participants in the debate assuming that they need not consider other matters of content. The debate was therefore mainly about whether to introduce a statutory scheme, and what the force of law might mean to the voluntary scheme. Often this was seen as simply having an equalising force, in that everybody would have to comply with the same rules. However the debate did turn more and more on additional possibilities as it intensified at different times, giving more consideration to additional or modified controls.

The main concern of this thesis is the policy making which occurred after the decision to legislate in 1984, where the climate of debate included the *certainty* of legislative changes. However earlier debates, especially that centering around the last decision to legislate prior to 1972, has explanatory potential for the main analysis. The concerns of different sectors about the control system and the types of pressure on the system experienced around 1972 had similarities to the 1984 debate and possibly predisposed its pattern. Only the main participants are examined: the Government (MAF), the Advisory Committee, and ABMAC (BAA). Other Government departments and factions within the ABMAC membership are not considered in detail here. The Advisory Committee took broadly the same official view as the Government at this time, at least from 1955, when the terms of reference of the committee were extended to include advising Government on the development of new legislation should this prove necessary. Two other actors with influence on the control system are discussed: the Royal Commission on Environmental Pollution (RCEP) and the European Commission (EC).

Special attention is given to the components of arguments for and against voluntary and statutory schemes proposed by the Government and the Advisory Committee, and to whether these accurately represent pressures operating on the control system.

Section 2.2.1 focuses on the debate from 1950 to 1979. It describes how the Government's point of view changed with changes in pressures from the various committees and from within and outside the pesticide control system. This helps to explain what factors might have maintained the three more stable periods of policy in this time period: up to 1967 (voluntary policy favoured); from 1967 to 1972 (statutory policy favoured); and from 1972 to 1979 (voluntary policy favoured); and also the two decisions which changed policy and were officially announced in 1967 and 1972. The third period, from 1972 to 1979, saw the introduction of some additional controls and peripheral legislation, having the effect of delaying the advent of a statutory scheme.

Section 2.2.2 looks at the components of arguments for and against the voluntary and statutory schemes, given as official reasons for reversing policy by the Government and Advisory Committee.

Figure 2.1 incorporates official statements of decisions to change policy. These are assumed, in the absence of official indications otherwise, to bound periods of stable policy maintenance. However the official statements or documents can only be assumed to approximate actual decisions, and apparent policy maintenance may disguise many efforts towards implementing a statutory scheme subsequently discarded. Documents from parties other than Government and its committees which may have had a bearing on the debate are included in this Figure.

2.2.1 The Debate on Statutory Controls

As already noted, the second Zuckerman working party (MAF, 1953) recommended giving statutory backing to the existing notification scheme for product registration should this prove necessary. The same group, in 1955 (MAFF, 1955), decided that the introduction of statutory controls was not required. Later, in 1961, the Research Study Group on Toxic Chemicals in Agriculture and Food Storage concluded that legal and voluntary measures had been successful in ensuring the safe use of pesticides. In 1962 a proposal to promote a new bill failed to be introduced. According to Sheail (1985) this was because as the Government was unlikely to agree to a measure covering every aspect of pesticide use, it had to focus on essential controls and there would be huge difficulties in drafting regulations to cover particular compounds, operator licensing and container disposal.

The debate which continued from these times until 1984 focussed on whether *registration and marketing* (distribution) should be subject to statutory controls.

By the early 1960s, the pesticide control system consisted of the ACAS, the PSPS and the supporting agreements as described in section 2.1.2. Pressures from

conservationists on both Government and industry in respect of OCs then shifted the climate to one more receptive to change. In addition, internal pressure on ABMAC from both large and small member companies in respect of the image of OCs were a threat to ABMAC's role in encouraging membership and thus participation in the PSPS. External enticements to members from non-members enjoying the benefits of low costs from imports were also causing problems. ABMAC in turn put pressure on the Government for a statutory scheme so that participation would be universal and the responsibility for enforcing PSPS participation would pass from ABMAC to the Government. The ABMAC saw that retaining the voluntary scheme would result in an increasing inability to maintain their policing role because any discipline could be undone by small firms. At the same time there was a public relations advantage in being seen to accept a stringent degree of control with a statutory scheme. Gillespie (1977) notes that ABMAC would have expected neither their working relationship with Government nor the clearance requirements to change under a statutory scheme. Those who stood to lose the most by a statutory scheme were firms not party to the PSPS, who would lose the advantage of lower costs from imported products which had not been cleared, in addition to having to provide a notification to the Government.

In his statement on the 1964 Advisory Committee report, the Minister of Agriculture recognised that the voluntary scheme might become inadequate:

> "The Voluntary Scheme has so far worked well, but as scientific knowledge increases and more restrictions are found to be necessary, it comes under increasing strain. The Government are asking the Committee to examine the present voluntary safety arrangements and will consider whether legislation, which the manufacturers of agricultural chemicals now advocate, would be desirable" (MAFF, 1964).

In his letter to the Advisory Committee he asked them to investigate such questions as whether 1) approval of new chemicals should be confined to those which would be more safe and effective than those in existing use; 2) approval should only be given on a provisional basis; and 3) residue tolerances should be prescribed. The Government would then consider whether the present voluntary scheme should be put on a statutory basis (Sheail, 1985).

In the meantime a Private Members Bill requiring manufacturers to identify the active ingredients - although only in farm and garden products - was brought in as the Farm And Garden Chemicals Act in 1967 (Cap 50).

The focus of the more detailed review (ACPOTS, 1967) was the *adequacy of the voluntary controls*. In contrasting the virtues of voluntary and statutory schemes, the voluntary was thought to be more flexible and thus able to cope with rapidly changing circumstances in pesticide technology and usage practices, as well as being less expensive to operate than a statutory scheme (although as we shall see a statutory scheme which just took powers to enable action has also been thought to have

precisely these advantages). However doubt that voluntary arrangements could be comprehensive was expressed, and most significantly the PSPS was seen as unable to prevent marketing of imported pesticides. The fact that importers and distributors could avoid the scheme was a weakness or loophole in its voluntary capacity as there was no legal impediment on distributors to do otherwise. In addition hazards might arise from uncleared products.

ACPOTS recommended a statutory scheme to control all marketing and use, based on the voluntary scheme. The advantages of such a move were seen to be total compliance whereby all products would be subject to controls, and enforcability of restrictions on use and requirements of labelling.

The principal recommendations were therefore (a) to create a mandatory licensing system for products, and (b) to make use of unlicensed products or misuse of certain products in specified ways an offence. More detailed proposals were that: legislation should require information provision, the content of such being determined by the licensing authority in order to retain flexibility; advice to ministers should be on a similar basis to previous arrangements; enforcement at the point of sale or supply should be instigated to ensure that products were licensed and of correct composition; provisions relating to labelling were met; specified uses of pesticides should be prohibited; misuse and abuse should be considered offences; and the controlling authority should be empowered to carry out independent testing.

Statutory control of residues was not thought to be appropriate because legislation under the Food and Drugs Act 1955 (Cap 16) (now replaced by the Food Act 1984 (Cap 30)) was available if required. According to Sheail (1985) there was a great deal of discussion on the concept of tolerance limits. However the lack of detailed knowledge about the toxicity of individual compounds meant it was possible to postpone the introduction of statutory tolerance limits.

In conclusion they stated:

> "While we do not wish to overemphasize the importance of the inevitable gaps in the voluntary scheme we think that it is true to say that only under a mandatory scheme can it be certainly established that all pesticide and veterinary products, including products imported for use by an importer, are subject to control. It is also important to ensure that, when necessary, any restrictions on the use of a particular active ingredient can be enforced, that all pesticide and veterinary products are properly labelled and that all distributors and others concerned conform to the same requirements. Another vital point...is that the Government should be possessed of adequate powers to act rapidly and effectively in unforeseen difficulties. Therefore while fully recognising the value of the existing voluntary schemes, we consider that an element of compulsion should be introduced so as to ensure comprehensiveness and to provide the Government with the means to act should the need arise" (ACPOTS, 1967).

The MAFF accepted the committee's recommendations in principle, and inter-departmental discussions on what might be included in a bill covering use in

agriculture, home-gardening, food storage, forestry and weed control ensued. Government departments drafted a "Pesticides Bill" in 1968 which included mandatory licensing controls on supply and labelling of products used in agriculture and food storage, the designation of certain forms of misuse (the use of poison baits) as an offence, and residue limits for certain pesticides in foodstuffs. It incorporated existing legislation on operator protection and labelling, and specified procedures for record keeping of purchase and usage, warning notices, and incidents reporting (Bates, 1969; Sheail, 1985). This would have replaced the Agriculture (Poisonous Substances) Act of 1952 and the Farm and Garden Chemicals Act of 1967.

On consultation, the major contentious matter was whether the proposed Bill should cover those uses of pesticides outside agriculture and food storage, extending the scope of the PSPS to match the terms of reference of the Advisory Committee. The Committee's view was that the Bill should include powers to extend the scope to include *any* pesticide product, and the Government agreed. There was discussion on whether the Bill should be enabling, or specific but with no scope for extension of controls.

In the meantime, the RCEP supported the ACP, saying that "Mandatory control is desirable, and will in the end be inevitable", and that there "...was already enough evidence to enable the Government to reach a decision and to introduce legislation at an early date" (RCEP, 1971).

However the ACP reassessed the matter in 1971, and found the situation less pressing. Imports without clearance were now few and unimportant, and most manufacturers had notified the committee of their products. There was a much reduced backlog in reviews, and the standard of labelling had improved. The recent cooperation of the industry in the phased withdrawal of certain organochlorine (OC) uses had encouraged them in this view (Sheail, 1985). However this still left the non-agricultural pesticides uncontrolled.

Following consultation with the RCEP, and with its agreement (RCEP, 1979), the Bill was officially abandoned in a statement made in 1972 by the Minister of Agriculture, Mr Prior (on the advice of the ACP) because, as he said "...the PSPS is now working so effectively". He continued that "Legislation could prove essential if the voluntary scheme lost any of its present effectiveness or if there were new technological developments for which voluntary controls would not be appropriate" (MAFF, 1972).

It had thus taken a full four years between formulating the Bill and this official decision to abandon it before going to Parliament in 1972. It can be assumed that very soon after 1967 the pressures on the Government lessened, and that this in turn led the latter to stall and eventually capitulate. A Conservative Government was returned in 1970, and it was unenthusiastic about regulation, especially as the imminent entry into the EEC posed the possibility of having to include even more regulation. Therefore

although the Bill was prepared in 1971 it seems likely that the Government was not entirely committed to its introduction. The apparent maintenance of a statutory policy was therefore only an official position at this time. Between 1967 and 1972 there was less political pressure from conservationists as OC use lessened, and the ABMAC members were experiencing less competition from non-members importing cheap chemicals, so less pressure emanated from them. With this alleviation, ABMAC gave more place to the arguments of smaller distributors in support of the voluntary scheme. At the same time the Medicines Act 1968 (Cap 67) which set up a statutory scheme for drugs, including some veterinary pesticides, may have illustrated the rigidity of such a scheme to Government. Sheail argues that the publication of the RCEP's report actually provided the pretext for abandoning a statutory scheme by apparently prompting a complete reappraisal of pesticide controls.

As noted above, between 1972 and 1979 the Government continued to maintain a non-statutory policy and to express satisfaction with the voluntary scheme. In 1974 the RCEP affirmed that there was no case for replacing the voluntary system in view of industry cooperation and the decline in the use of OCs. However they said that mandatory controls should be reconsidered (a) if the level of control fell, (b) in the case of technological developments, (c) in the case of new uses for pesticides and (d) if obligations arose from EEC membership (RCEP, 1974). In 1974 the DoE's Central Directorate on Environmental Pollution (CDEP) recommendation, that non-agricultural uses should be subject to the same degree of control as agricultural ones, was accepted by the Secretary of State (DoE, 1974). Before 1976 however, dissatisfaction was being expressed again over non-cleared imports of pesticides and the suppliers involved. It was said that there was "misuse" of pesticides,[5] presumably because uncleared imports were being sold, and there was again concern from environmental interests over the safety aspects of distribution.

The Government took the view that the safety of stores and transport and the advice given on pesticides left much to be desired (Broadbent, 1986). In 1976 the Government suggested to the trade association representing merchants (what is now UKASTA) that self-regulation should be attempted, with the aim of making all suppliers register under a scheme,[6] and after discussions with UKASTA, ABMAC and the NAAC, BASIS was formed in 1978. All suppliers registered under BASIS had to deal only in PSPS cleared chemicals and only with other BASIS members. The additional sanctions by the trade associations party to the agreement to ensure that their members registered with BASIS further discouraged the supply of uncleared chemicals, forcing more chemicals to go through the PSPS procedure. The setting up of BASIS was an attempt by the Government to avoid legislation. It effectively passed responsibility for control back to the industry, and held off legislation for an interim

5 Interview, BASIS, London 27/1/86.

6 Interview, BASIS, London 27/1/86.

period until the crisis which preceded FEPA. In addition, from 1978, the Government had the possibility of recourse to the Consumer Safety Act 1978 (Cap 38) which held the powers to allow Government to require clearance prior to marketing imported or domestic products, so it could always be said that regulations on the control of pesticides could be made if necessary. Thus the RCEP (1979) was led to comment that a loophole had been closed in the voluntary scheme and that unsafe pesticides could be kept off the market. However it said that "This earlier loophole was...more of theory than of substance, because over 95% of sales in the UK were through firms belonging to the BAA, and the BAA had already taken action in the matter by introducing the BASIS". Both BASIS and the CSA quietened the industry and led to a period of confidence in the control of pesticides flow until 1983 (see Chapter 5).

2.2.2 Reasons Given for Changes in Official Policy

As might be expected, the various governments involved have been most vocal when they wanted to change the existing official policy and promote something new. Thus more detail about views and proposals were available at these decision points, such as in 1967, when the Government wished to change to a statutory scheme. Figure 2.2 shows the views expressed at various decision points: in 1967; in 1972 when the "statutory" policy was retracted; in 1979 when the Government was obliged to express its non-statutory view, for example in formal evidence to the RCEP; and in 1983 in refutation of the latter's pro-statutory stance.

It teases out the substantive elements which the Government/Advisory Committee used, either positively or negatively, in arguments about either the voluntary or a statutory scheme. Arguments are composed of one or more elements, portrayed in one of four modes: disadvantage of the voluntary scheme, advantage of the voluntary scheme, disadvantage of the statutory scheme, and advantage of the statutory scheme.

Since the statutory scheme was always seen as a possible future eventuality with dimensions which were uncertain (viewed from a current voluntary state), views concerning it are projections, implying a lower level of precision than views on the voluntary scheme (which had known dimensions), which are perceptions.

The Government did not make any detailed retraction statements in 1972, but simply re-expressed satisfaction with the current situation in the catch-all phrase "the voluntary scheme works very well". This is understandable, because to retract in detail might have entailed showing acceptance of elements previously said to be unsatisfactory in the voluntary scheme.

In 1967, the overall argument pattern was mainly in terms of the advantages of the statutory scheme and disadvantages of the voluntary scheme (far left and far right hand columns respectively). Where an advantage of the voluntary scheme or a disadvantage of the statutory scheme is mentioned, it is always in terms of the Government-industry relationship and its flexibility, but these elements remain the same whether the thrust

Figure 2.2: Arguments about Voluntary and Statutory Schemes

		VOLUNTARY SCHEME		STATUTORY SCHEME	
		DISADVANTAGE	ADVANTAGE	DISADVANTAGE	ADVANTAGE
CURRENT SCHEME	(a) range of supplier compliance (b) range of products covered	gaps in powers (67)	substantial powers available in existing legislation if necessary (83)	powers not necessary (83)	control all suppliers if wish (67) control all products if wish. (67) clear up anomalies
COMPONENTS/ FORMAL AIMS OF CURRENT SCHEME	(a) assessment standards (b) safeguards (c) hazard control (d) data provision (e) labelling		very effective (83) powers unnecessary (83)	no increase (79) no different (79) BUT	increase (67) powers to enforce greater (67) powers to enforce greater (67)
RESOURCES TO RUN CURRENT SCHEME	(a) "cost" (b) time (c) civil servants (d) toxicological expertise			increase (67) increase (79) increase (79) increase (79) increase (79)	
ADDITIONAL CONTROLS	(a) "more detailed controls" (b) use restrictions			difficult to enforce (monitoring) (67)	BUT Opportunity to incorporate improvements (67)
GOVERNMENT BARGAINING POSITION					greater (67)
GOVERNMENT/ INDUSTRY RELATIONSHIP	(a) "grmt-ind relationship" (b) flexibility of scheme (c) workability of scheme (d) effectiveness of scheme		good (67) flexible (67) works well (72) works effectively (72)	less easy (67) less flexible (79) less flexible (67)	

KEY: 1967 ACP Report (yes to legislation)
1972 HCDebs (no to legislation)
1979 ACP Evidence to RCEP (no to legislation)
1983 Government Response to RCEP (no to legislation)

of an argument is for or against a statutory scheme. By comparison, the argument pattern surrounding the voluntary scheme (1972, 1979 and 1983) was in terms of disadvantages of the statutory and advantages of the voluntary (centre two columns): nothing positive was said of a statutory scheme, and the full range of costs was stressed.

Elements of resource and formal aims categories tended to be argued in tandem. When arguing for a statutory scheme (1967) cost was seen as likely to increase, but so

was hazard control. In contrast when arguing for a voluntary scheme (1979) an increase in all resource elements (cost, time, civil servants, expertise) was said to be likely, yet no increase in formal aims (hazard control and assessment standards) was envisaged and safeguards were not mentioned. Safeguards were later (1983) stressed as very effective, although it is not clear that there had been any improvement since 1979.

In 1967, stresses on the Government resulted in emphasis on some elements. For example the Government's bargaining position was thought to be greater with a statutory scheme, and this was at the time when they felt the need for more influence in the ongoing argument with the industry over labelling. In addition, enforcement of use restrictions was seen as important, as the Government wanted to restrict the use of OCs. Also, enforcement of membership of the control scheme seemed important as some firms would not cooperate in performing tests on old products.

As concerns powers backing the coverage of the voluntary control scheme (members and therefore chemicals) and compliance, it has always been acknowledged that there were shortcomings. However in 1983 one of the arguments against a statutory scheme was that there were already substantial powers available (FGCA 1967 Cap 50; CPA 1974 Cap 40; HSWA 1974 Cap 37; and CSA 1978 Cap 38). Nevertheless, as will be seen later, when arguments were being developed in 1984 for a statutory scheme substantial gaps in these powers were listed.

3. Participation and Policy Making

This chapter first looks at the conceptions of policy making as rational decision making, which are embodied in prescriptive policy analysis frameworks (section 3.1). It goes on to examine the development of descriptive models of policy making leaning towards a more "political" rationality, which are based (a) on ideas of limits to rationality and (b) on observations of real-world policy making behaviour (section 3.2). The development of prescriptive frameworks which try to incorporate a more political rationality, and an attempt at introducing such frameworks in real-world environmental policy making are described in section 3.3. Political models of participation are described in section 3.4; and section 3.5 considers political rationality and procedures for participation, and the possible situational limits on these.

The chapter then sets out the problems examined in the thesis. The framing or constraining qualities exerted by "situational limits to rationality" (pre-existing substantive factors which may be more historical or more proximate to the present debate; and concurrent substantive or procedural factors) on policy shaping are examined in section 3.6. In section 3.7 an interchangeable terminology used in the descriptive analysis of the influence of the above is described, in terms of the alternatives available: for objectives, routes to objectives, system perception and problem perception. Alternatives can denote evidence offered by participants; evidence considered in decision making by more central participants; and the situational influences on policy making, describing general categories of influence as alternatives-broadening or alternatives-limiting in policy making. The issues chosen for detailed consideration include three likely to be seriously affected by situational limits, and one likely to be affected only slightly, as described in section 3.8.

3.1 Prescriptive Analyses Embodying a Rational Decision Model

Policy analysis is today largely concerned with social and economic problems such as regulation and pollution control, energy and education, housing and health care (Hogwood and Gunn, 1984). Its methods derive from a model which describes decision making as rational. Its problems are decision problems and are cast as choices (under uncertainty) between alternative means for achieving a goal; and rationality means choosing the *best* means to attain a given goal. Its methods are *prescriptive*, aiming to assist the decision maker with the choice, and include cost-benefit analysis (CBA); risk-benefit analysis and decision analysis.

A rational decision model portrays a policy problem as a choice facing a single political actor as to which course of action to take to reach a desired end. The actor goes through a sequence of mental operations to arrive at a decision. These steps are (1) defining goals; (2) imagining alternative courses of action for attaining the goals;

(3) evaluating the alternative consequences associated with taking each course of action; and (4) choosing the course of action most likely to attain the goal (Stone, 1988). One version of this model has been formulated as subjective expected utility (SEU) theory, the basic idea of which is to load all values into a single function, the utility function, in this way facilitating the quantitative comparison of alternatives from the perspective of the values of a single actor. In this case, before analysis takes place the decision maker is assumed to have a well defined utility function such that he/she can assign a cardinal number as a measure of his/her preference for any particular potential scenario.

When CBA is applied to public decisions it assumes a well defined decision maker who is objective and already has goals, a selection of explicit alternatives and explicit constraints. Thus problems are assumed to be well defined decision problems and analysis can concentrate on the assessment of consequences as the basis for a decision. The decision maker is assumed to want to act in the public interest such that his/her utility function is already based on maximization of total welfare and therefore he/she will choose an alternative or strategy based on a criterion of maximising the expected value in terms of this utility function. Consistency is expected of the decision maker (he/she can assign a consistent joint probability distribution to all future sets of events consequent on the strategy so that lower level decisions will be consistent with higher ones) and this assumes that he/she is fully informed. In this paradigm, politics and human nature belong to institutional or behavioural givens and are outside the scope of the analysis (Simon, 1983).

3.2 Policy Making Behaviour and the Idea of Limits to Rationality

However in public policy making, human nature and politics are all too present, as demonstrated by descriptions of policy making behaviour. In a paper on power in the policy formation process, Bachrach and Baratz (1962) use the concept of non-decision making, where account is taken of how political issues are kept off the policy agenda by those in political power.

Edelman (1971) again sees some policies as purposeful, and draws attention to symbolism, where politicians formulate policies which make them appear to be in favour of certain goals, whilst having no intention to ensure implementation (for example by not providing the necessary funding).

Lindblom's conception of decision making in the policy formation process is somewhat less purposeful than Bachrach's or Edelman's. Lindblom (1965) sees policy makers reacting to a complex problem by "muddling through", formulating only very small political changes, and considering only a very small number of alternatives - essentially steering existing policy and having only a few limited goals amongst a mass of political rhetoric. He calls this political pattern "incrementalism" (regardless of any methods of analysis used). In 1979 he described it as coming somewhere between

taking big steps in policy, such as dealing with environmental problems as an integrated whole, and a comprehensive and scientific analysis of policy alternatives with respect to particular smaller issues, "synoptic" in its aspiration to be complete. Incremental politics (a) is intelligently exploratory when linked to sequences of trial and error, (b) reduces the stakes in each political category, encouraging losers to bear their losses without disrupting the political system, (c) maintains the general value consensus because no specific policy issue ever centrally poses a challenge to participants, and (d) can accomplish drastic alterations in the *status quo* without stirring up the great antagonism which would meet a single larger change, if the sequence of small changes is fast moving. The first three attributes are considered necessary for widespread voluntary acceptance of democratic government. *Incremental analysis* based on this pattern, is described in the next section.

Viewed from the perspective of incrementalism, policy makers often refrain from thinking through or spelling out objectives to avoid conflict or to avoid providing standards by which their performance could be judged. As well as making small adjustments to existing policies, they accept that policy making is serial and that they will have to come back to problems again and again to reconsider the problem in the light of new data (successive limited comparison or SLC). Policies are made by the interactions of many actors; such actors adjust to one another through bargaining, negotiation and compromise; and a value is placed upon consensus seeking amongst actors so that what emerges as policy is a compromise (Lindblom, 1959; 1965; 1968).

Etzioni also describes policy making as a strategy somewhere between synopsis and big steps and finds that some rationalistic decision making is used in conjunction with incrementalist decision making, calling this "mixed scanning". Mixed scanning entails a decision process in two phases. Initially a broad sweep is made of policy alternatives and these are assessed against stated values in general terms. Then within this framework, decision making proceeds incrementally in matters of detail.

> "Incrementalism reduces the unrealistic aspects of rationalism by limiting the details required in fundamental decisions, and rationalism helps to overcome the conservative slant of incrementalism by exploring longer-run alternatives...incremental decisions are made within the contexts set by fundamental decisions - made by the actor exploring the main alternatives he sees in view of his conceptions of his goals without specifying details" (Etzioni, 1967).

Dror (1964) also seeks an alternative model consisting of a recapitulation of some aspects of rational planning but with heavy caveats of the form "*some* clarification of values"; "*preliminary* estimation of payoffs"; or "explicit arrangements to stimulate creativity".

Smith and May (1980) believe that the contrast between incrementalism and rational models has been overdrawn - in explanatory mode the two models of decision making converge. They say that rationality and incrementalism *as principles* are

however diametrically opposed, and cannot be reconciled by mixed scanning, as fundamental decisions in one context are incremental in another and vice versa. Their objection to Dror is that he does no more than restate the opening commitment to both rational and non-rational elements and does not change the central features of the dispute between the principles of incrementalism and rationalism. Richardson and Jordan (1979) similarly emphasise the agreement between rationalism and incrementalism as descriptive approaches. Smith and May conclude that:

> "the components of 'decision making' in social policy are by no means obvious...the relationship between rationalism and incrementalism can only be shown through empirical research. More sophisticated accounts are required of the impact of policy makers' ideologies, the nature of decision making, the conduct and outcomes of the various stages of the policy process within the machinery of policy administration".

They doubt the utility of expending any more intellectual energy in developing a priori models of decision making: "...the way forward lies in producing more, and more carefully researched data based answers to the following questions: what do relevant professionals, administrators, policy makers and laymen actually mean by decision making? What tactics do they employ? When? Where? How? and to what effect?".

Distinct from such empirical descriptions, Simon and Lindblom describe real-world policy making behaviour in terms of deviations from the perfect rationality set up in the prescriptive frameworks. The idea of perfect rationality requires a person to consider all the possible alternatives and evaluate all the possible consequences of each. Simon's descriptive model (1957; 1976) therefore argues that policy makers will always be subject to a "bounded rationality", able to consider only some alternatives and equipped with only limited information, so that they will always be obliged to "satisfice", or stop looking for the best alternative when they have found a satisfactory one. Simon concentrates on what Hogwood and Gunn (1984) call "organisational limits" to rationality and "psychological limits" to rationality. "Psychological limits" recognises that we lack the knowledge of alternatives, the skills to calculate the consequences of them, and the clarity and consistency about values which are needed to achieve complete rationality. "Organisational limits" refers to the compartmentalisation of different aspects of a problem in organisations which gets in the way of the "whole problem" approach; the departmentalism of outlook; and the fact that information flows do not relate to information needs in policy making. Apart from identifying "resource limitations", which recognises that rationality has costs in terms of time, energy and money, Hogwood and Gunn also identify "multiple-value limits" and "situational limits" to rationality.

This thesis will try to elucidate the effects of such situational factors on participation in policy decision making. These occur in the past as well as the present and may be substantive or procedural. These are discussed in section 3.6 in sections

entitled Pre-Existing Substantive Factors and Current Substantive and Procedural Factors. The factors may constrain policy makers; be a constraint flowing from policy makers as a result of such constraints on them; or be a constraint originating with the policy makers.

As concerns "situational limits", Lindblom emphasizes the political environment of policy making and the constraints of the given situation in which policy is made. Hogwood and Gunn (1984) note that "...a policy maker does not write on a clean sheet, he does not decide in a vacuum. We are all influenced by the past (for example by precedents), by powerful vested interests in the present, and by people's assumptions and expectations concerning the future".

In policy making, the ideals of explicitness and consistency are not achievable because political processes involve diverse actors, all making choices and not sharing objectives (Majone, 1985). There is therefore no such thing as a unitary decision making body in the policy area. Rationally it is impossible to accommodate all the relevant value and interest considerations (Simon, 1983). The existence of multiple values has been seen as a limit to rationality as mentioned above. However in this thesis the extent of their accommodation by, and the comprehensiveness of, policy makers is investigated in relation to substantive and procedural situational factors, which latter *include* existing preferences for certain values held by certain sectors in the exiting pesticide control system.

In the rational model, situational factors relevant to the framing of policy issues are ignored. No attention is paid to questions such as: how did decision makers recognise that there was a problem; from where or from whom did the goals emanate; from where or from whom did the alternatives emanate; how were the choices made; were certain alternatives chosen regardless of the consequences for the goals of some of the actors; and were the criteria of only some of the actors used as a basis for the choice of alternative? Policy problems can be framed by key decision makers who can make routine screening decisions about the existence of problems and the need for remedies in formulating legislation and then translating that largely self formulated legislation into regulations. This discretion can condition what is appreciated in evidence presented at all stages.

3.3 Prescriptive Models Aspiring to a More Political Rationality

Conventional policy based research on pollution control and risk assessment stresses the importance of scientific rigour (Hoel *et al*, 1985) and the belief that decisions should be based on a strict separation of facts and values, with values only explicitly brought in at later stages of assessment (Rein, 1983). The political process by which a decision is reached is thus usually ignored in rational analyses, because they assume a unitary decision maker who will inject values and objectives, and prioritize these (there being no internal mechanisms for determining such in a rational

model). In addition, although decisions by politicians and civil servants are given a role to play by virtually all writers on policy analysis, the more rationalistic ones assume they are depoliticized (Hogwood and Gunn, 1984).

Prescriptive policy analyses sometimes *add on* political aspects to the technical and economic aspects, for example Dror (1967). They include a stage where what are seen as political and institutional constraints that limit the freedom to choose an alternative are listed, so that consequences for the achievement of policy objectives can be estimated (Majone, 1985).

Holling (1978) called for an adaptive environmental management and policy process, which integrated environmental with economic and social understanding at the very beginning of the design process, in a sequence of steps during the design phase and after implementation. He directed this argument "...to senior administrators and policy makers who are responsible for dealing with environmental issues".

The Open University's Hard Systems Approach (Open University, 1984) attempts to incorporate multiple political values into its decision making framework by explicitly acknowledging them as an important part of the system under consideration in having two stages, Problem Framing and System Description, at the beginning of the analysis. These explore and make explicit the perceptions of all key organisations and individuals in relation to the issue involved. The initial perception of, for example a risk-regulatory problem, exerts an influence on all subsequent stages of the decision making process, and so political factors are kept in view throughout the analysis. There is an inbuilt provision for returning to the first two stages at any time (iteration). This approach to analysis recognises that qualitative aspects of decision making inevitably influence the choice of objectives and hence all later stages, and that their concealment leads to risk-related conflict. The importance of the sequence in which Problem Framing and System Description is carried out (wittingly or unwittingly) in a real world situation was demonstrated by Tait (1988) to have repercussions for the selection of measures of performance by which to evaluate alternatives, which may selectively serve the values concealed in the "problem definition", again providing a source of conflict. In conventional Hard Systems Analysis a decision on measures of performance follows directly from objectives setting, before generating alternatives; whereas if alternatives were considered first a broader range of values could be explored. This has repercussions for "effective participation" and the alternatives considered. In Tait's study, a county council's behaviour in an urban road planning case study was described as first deciding on the alternative they wished to implement, then framing the problem and describing the system so as to ensure this outcome (thus using the analytical process as a weapon of argument to support a course of action which had been chosen before the analysis was carried out). The favoured alternative supported their long-term policy objective of developing an integrated computer-controlled system of traffic lights for the town, in line with the needs of commuters.

However it conflicted with the wishes of local residents, cyclists, and parents of children at an adjacent school, who had other views on the acceptability of the extra traffic.

The RCEP (1988) has gone some way towards linking qualitative and quantitative approaches to risk assessment. In its report on the method of selecting a Best Practicable Environmental Option (BPEO), it suggests including qualitative evaluation at the third of seven steps in the analysis (evaluating the options), the objectives having been set as a first step. The RCEP consider consultation to be necessary as part of this third step:

> "The advice of experts may be sufficient to ensure that the best results for the environment are secured. However where the trade-offs are difficult or controversial, the selection of a BPEO cannot be left to scientists, industrialists and regulatory experts alone. Public involvement is needed so that the public values underlying the choice of a BPEO are identified and clearly understood... In the case of a new industrial project...the proposal for which planning permission is being sought should be the outcome of the kind of sympathetic process which we have advocated. In particular, the process of consultation and public discussion about the project should begin as soon as possible. It is also important that the different regulatory bodies should have early discussions about an industrial project so that conflicting requirements can be avoided".

In their step 4 (summarising and presenting the evaluation) weighting of non-monetary values is recognised to imply a set of values which are not obvious.

> "The scale of values must be clearly stated and the reasoning for them clearly explained. Presentation should be of data, scores and descriptive words; and numerical or other values should not be combined into a single value as this may obscure the controversial nature of the value judgements which lie behind it. This is more readily understood and far more informative".

In their step five (selecting the preferred option) it is recognised that different decision makers might come to different conclusions about the BPEO based on the same evidence.

Lindblom (1977) and Wildavsky (1980) see politics as more than just a means of injecting values into rational choice, having analytical significance itself. A multiplicity of participants in the political process reduces the chance of a feature being overlooked because of the way an issue has been defined by a particular decision maker. Wildavsky (1980) writes that "...the purpose of policy analysis is not to eliminate advocacy but to raise the level of argument among contending interests...the end result, hopefully, would be a higher quality debate and perhaps eventually public choice among better known alternatives".

Lindblom's (1977) conception of policy analysis entails a process-aiding, negotiative, consensus-building, and not a problem-solving, orientation: the analyst designs procedures for group decision making and acts as a catalyst in the process.

Such analysts find the social interactions involved too complex to be fully grasped by the intellect and deny that explicit problems exist. Policy problems may be temporarily resolved (removed from current debate) because a consensus had been reached by participants in the policy process. Analysts may *aid* this process (Majone, 1985). Lindblom recognises real world clients for such analysis: the participant in existing interactions; the public official intervening in existing interactions to pursue a public purpose; and those interested in institutional reform who will analyse such interactions.

Incremental *analysis*, which Lindblom divided into simple incrementalism and disjointed incrementalism, is also useful in *describing* policy making. Simple incremental analysis is limited to a consideration of alternative policies all of which are only incrementally different from the *status quo*. Disjointed incrementalism is a more complex method of analysis which entails (a) limitation of analysis to a few familiar policy alternatives, (b) intertwining of analysis of policy goals and other values with empirical aspects of a problem, (c) a preoccupation with ills to be remedied rather than goals to be sought, (d) a sequence of trials, errors and revised trials, (e) exploring only a few possible consequences of a considered alternative and (f) fragmenting the analytical work to many (partisan) participants in policy making (Lindblom, 1979).

Hogwood and Gunn (1984) believe that a finished analysis should be a supplement to an ongoing political process, to be consumed, critically appraised, and possibly discarded by it, in the process of reaching a decision. The alternative is to let analysis replace politics and take over centre stage in the policy process.

In Simon's more recent work he stresses the role of political mechanisms, envisaging circumstances (issues of high controversy) where debate and confrontation may be the only way to handle an issue (Simon, 1983).

This thesis will not try to demonstrate how observations of real world policy making may affect prescriptive frameworks for practice. However by being more specific about situational constraints on policy making it may suggest that these should be examined more carefully. More successful analyses may be undertaken by the appreciation of such limits, and by reducing expectations of rational analysis.

3.4 Models of Political Participation

Partisan Mutual Adjustment (PMA) is a means of describing a pluralism typified by political interactions among many participants. Lindblom (1979) thinks of PMA as a mechanism for "social rationality" which sits well with the fragmented policy making involving SLC posited as disjointed incrementalism. PMA posits decentralised political decision making in which autonomous participants mutually affect one another resulting in (a) policies being better described as happening than as decided upon, (b) policies being influenced by a broad range of participants, (c) the connection between a policy and the reasons for it being obscure, since participants act for diverse reasons,

and (d) a coordination of participants as policy makers, superior to any attempt at central coordination.

Assuming PMA as a description of the real-world rather than as an ideal, Lindblom (1979) lists two common objections to PMA. First, not all interests are represented by participants in the debate and participants do not exert an influence proportional to the numbers they represent. (However centralised policy making often does not achieve this either and can even be an instrument for protecting historically inherited inequalities.) The second objection is that the participants do not represent the interests and values of the population but share dominant interests and values so that there is not a "healthy competition of ideas", and sometimes "policy is set by a ruling class with the trappings of a pluralist diversity". (However, if you divide policy issues into grand issues to do with the fundamental structure of politico-economic life and the simpler issues that ordinarily come onto the political agenda, only with the grand set is PMA weak or absent. In the case of the simple issues - the large majority - PMA is active, though with defect of inequality in participation and tendencies towards corporatism.)

The fragmentation of policy making and consequent political interaction among many participants is seen by Lindblom as a method of raising the level of information brought to bear on decisions, thus a mechanism for "social rationality" (Lindblom, 1979).

Given the SLC style, Richardson and Jordan (1979) believe that SLC itself is a reason for avoiding a preliminary insistence on clarification of values and objectives - the probability of harmony at that stage is low. There is more chance of agreement on a specific proposal than there is of agreement on objectives. The best policy is one that gains agreement. The emphasis on accommodation between groups explains why decision making takes the form of comparison between pragmatic available alternatives. Too radical proposals are unlikely to have wide attractions for the various interests. This encourages only relatively minor changes to be put on the agenda. In Richardson and Jordan's view, Lindblom's model accurately describes what happens *because groups are integrated in the process*, and this leads to an incremental style.

The thesis will try to say in what ways PMA and SLC may or may not actually take place in a legislative context.

3.5 Political Rationality and Procedures for Participation

The procedures involved in making a decision are rarely considered in the rational model. However sometimes the way in which a decision is made is valued above the decision itself. Stone (1988) writes that "People value town meetings not because they render correct decisions but because they offer individuals a chance to participate in making policy decisions". In talking of court decisions, Brooks (1976) says that the legitimacy of court decisions about conflicts between individuals is based on the

parties involved being prepared to accept as unbiased a set of rules and a procedure for applying the rules. Majone (1985) notes that "When the factual and value premises are uncertain and controversial, when objective criteria of success or failure are lacking, the formal characteristics of the decision process - its *procedure* - become significant". He goes on to say that the rationality and legitimacy of public policies must also depend on the acceptability of procedural considerations as well as substantive ones. In talking about the legitimating role of Parliament, Hogwood (1987) mentions the "...often supported view that policies are only fully legitimate if relevant interests are consulted in advance. Thus the legitimacy of a policy is seen as adhering to the process by which it was arrived at rather than parliamentary authorisation".

This thesis examines the procedures involved in "consultation" during the legislative process and the views of participants as to the legitimacy of these procedures. It investigates the extent to which procedural practices operate as constraints, in conjunction with other situational constraints, to inhibit effective participation in this legislative context.

3.6 Factors Examined for their Framing Qualities in the Policy Debate

Jackson and Keys (1987) define a problem context as including the individual or individuals who are the would-be problem solvers, the system(s) within which the problem lies (in this case the pesticide control system), and the set of relevant participants. This set contains all those who can make decisions which affect the behaviour of the system(s). The nature of the system(s) and the nature of the relationship between participants greatly affect the character of a problem context.

3.6.1 Pre-Existing Substantive Factors

Established Participants in the Pesticide Control System. Previous judgements made by certain partners, for example the agricultural industry and the regulators, or the chemical industry and the regulators, about who should be responsible for pollution and its control, are important factors in the debate about pesticide regulation. Arguments and proposals for intended rules and changes are likely to be premissed on vaguely moral safety grounds, well rehearsed by industry and government in the past. A perceived identity of values shared by the industry and the regulators may have had a large degree of influence on key policy makers, in what they appreciate as evidence, and on their policy framing.

Hawkins (1984) talks about enforcement by regulatory agencies in terms of "capture theory". An agency is seen as being co-opted by those it seeks to regulate, incorporating and reflecting their concerns into its decision making in the interests of stability and self-preservation (Selznick, 1966). The shift is a subtle one in which "...the mores, attitudes and thinking of those regulated come to prevail in the thinking of many regulatory officials" (Bernstein, 1955).

Barrett and Hill (1984) (also with reference to implementation) in their work on implementation theory, emphasize that there is not necessarily an hierarchical relationship between actors formulating policy and actors implementing policy with respect to initiating policy. In the context of this thesis the people who influenced or made policy might have been those who officially made rules about policy, interpreted policy, or would execute policy. Or they may have been people who believed that policy would impact on themselves or others. Policy making entails compromises with any or all of these people (involving conflicts of both interests and values).

Already Implemented Controls and Practices. The theoretical literature on implementation in the policy process holds some especially interesting theories regarding the *relationship* between policy and implementation which may help to explain where some policy comes from (and also why the nature of the source can have implications for effective participation). The conventional approach to the conceptualisation of the policy process is that policy originates "from the top", that is that policy precedes action and that actions can be related to specific policies. Barrett and Hill (1984) argue that action may precede policy: that policy may be a response to actions, like pressures, problems or innovation, and that actions cannot be directly related to (or evaluated against) specific policy goals. Even where a policy appears to exist it may not entail clear goal specification. Policy and action are therefore not necessarily sequential. A corollary of this is that actions may take place without policies, and possibly never lead to policies, and vice versa. Also actions and policies do not necessarily have a one-on-one relationship (that is, many separate actions can lead to a single policy or many different policies can lead to the same action). It is reasonable to assume that policies which *are* related in substance and sequence are not necessarily closely related in time. This thesis will suggest that, given multiple participants, *someone's* policy, witting or unwitting, always precedes action. Where actions appear to precede policy it is because either (a) the participants making policy are not in roles where public declarations of policy are necessary or the norm, or (b) the policy decisions are made at a time when those who might make such declarations on their behalf (administrative civil servants) are not in the public eye. Policies may also appear to precede actions when administrative civil servants articulate a pre-existing policy-action sequence as policy, implying that it is yet to be put into action. This happens when they are in the public eye, such as during legislation, when good public relations are important.

Existing Formal Recommendations. Reports in circulation influence the civil service and Government, especially if seen as authoritative. The RCEP, for example has two main functions (Lowe, 1975): to provide an alternative mechanism to the Whitehall bureaucracy for considering the effectiveness of pollution control, which involves assessing relevant areas to reveal areas of neglect; and to provide a channel for new ideas, initiating novel and long term policy proposals. The latter demands a

long term view of pollution to anticipate problems arising from technical change, which is a function often lacking in executive government. It includes a commitment to maintain a high level of informal and sustained public interest in pollution abatement, as only in such a climate would Government action be prompt and decisive (RCEP, 1971). The RCEP has no formal powers other than persuasion and the provision of information, which depend on the prestige of the Commission (arising in part from its independence from Government) and the influence of the Commission (arising in part from its cooperation with Government). Lowe writes that this effectiveness therefore rests on two antithetical elements (independence and cooperation), ensuring that it is responsive but not subordinate to Government.

Unlike other commissions the RCEP examines *present* executive activities. It has generally not sought to inspect decision making in the Government's pollution program, but to "monitor the executive machinery" for pollution control. The Commission therefore shares Parliament's role of scrutinizing the executive. Lowe considers that this is desirable as there is no public accountability for organisational matters in the UK, and Parliament has not evolved to meet the challenge posed by the modern corporate/industrial state.

3.6.2 Current Substantive and Procedural Factors

Participants. The identity of central policy makers (whether they are established members of the pesticide control system and what their values are), and the extent to which they are affected by substantive factors, shape their substantive policy making (the evidence from participants admitted as viable alternatives) and their non-substantive or procedural practices (and hence the level of impact of procedural factors on effective participation).

The Legislative Process and Participation Procedures. The legislative process in Britain can be divided into pre-parliamentary, parliamentary and administrative phases, and the central three analytical chapters of this thesis (chapters 6, 7 and 8) follow this division. The pre-parliamentary phase of the process is "legislative" because considerable shaping takes place at this stage, and "pre-parliamentary" because the legislature is not involved at this stage.

In each of these phases the role of the executive is predominant (Hogwood, 1987). Walkland (1968) went so far as to argue that "...legislation is now an almost exclusively executive function, modified, sometimes heavily, by practices of group and parliamentary consultations". Richardson and Jordan (1979) characterise the British system as one in which Parliament plays little direct role in the policy process, with the formulation of policies being determined through consultation within relatively closed "policy communities" of Government departments and interest groups. In the context of this thesis, meetings with interest groups and debates in Parliament are all seen as executive consultations so far as alternatives generation goes: some are merely

more private than others.

According to Brickman *et al* (1985), rules of participation take on an overriding significance in chemical regulation, because it is a contentious area of public policy. Access to regulatory authorities permits private interest groups to shape the policy agenda and influence individual decisions. The regulatory process admits the views of non-governmental participants, but the extent, format and timing of participation may vary considerably. Consultation in Britain is a central element of the decision making process, but it is not as highly structured as in the US (as open or as formal). Major regulatory proposals are circulated to other Governmental departments, to affected industries, and to consumer and public interest groups regarded as competent by regulatory authorities. Comments made by these parties are carefully considered in reaching final decisions so that groups drawn into the consultation process exert considerable influence on policy making. However groups not recognised as important by the authorities remain outside the administrative process and exert little or no influence (Brickman *et al*, 1985). Participation by a broader range of interests would avoid "capture" by powerful interest groups as described above. In rational terms wider participation would avoid bias and broaden the agency's information base, helping to ensure decisions are reached in a more "rational" and less arbitrary way. If some sectors cannot participate, their versions of rationality with their associated choice of alternatives and objectives cannot be considered.

Brickman *et al* (1985) explain that the British regulatory system has repudiated the attempt to legislate procedural rules for administrators. In the same year that the Administrative Procedures Act was enacted in the US, the UK abolished an existing requirement for prior publication of administrative regulations. The Statutory Instruments Act (1946; Cap 36) terminated a movement towards a British APA and instead firmly established informal consultation as the preferred means of drawing the public into administrative proceedings. Such procedural informality means that Government officials act as gate-keepers, regulating entry into the consultation process, and controlling the flow of information to and among interested parties. Brickman *et al* see this systems advantages as being more suited to negotiation and consensus building because compromises can be made in private and kept confidential, as opposed to the open adversarial system in the US, which induces hardening of positions.

In one sense this may be seen as more accommodating of politically rational behaviour, since administrators do not have the same pressure to put their political decisions in terms of artificially scientific or economic rationality. However, it does nothing to accommodate plural rationalities nor does it favour the widening of administrators' appreciation of available alternatives, since through informality the administrators have the discretion to admit only certain participants - either preserving existing bias or positively exercising preference.

3.7 Description of the Contemporary Debate: Participants and Alternatives

Alternatives. In the prescriptive Hard Systems Approach (Open University, 1984) the generation of alternatives is a stage of the approach which is described as the most imaginative and free-thinking; where a large number of alternatives should be put forward for consideration, and an influx of new ideas is sought. It is the stage which calls for the most divergent, rather than convergent, style of thinking, and where a considerable amount of searching and a wide range of answers are tolerated. It is emphasized that if new and better ideas about objectives or problem definitions are unearthed at this stage, the latter should be reconsidered in the light of them - a process called iteration.

During the legislative process, alternatives are generated continuously by a wide range of parties. These have the potential to enlarge central policy makers' range of alternatives (for broad objectives, or design of specific actions related or unrelated to stated objectives); to widen or change their appreciation of the control system, its behaviour, the problems, and the opportunities for change; and therefore to alter or add to the alternatives they consider. Through a detailed descriptive examination of the handling of a range of pesticide control issues, the thesis examines the extent to which new alternatives were considered, objectives were re-examined, and appreciation of the systems involved became more sophisticated, all of which could have been enhanced through a range of sources including central policy makers and less central participants.

The main currency involved in these potential dynamics is alternatives. Alternatives can be offered as addressing problems or indicating opportunities. Although a wide range of alternatives may be offered, it is argued that a number of influences operate to constrain their consideration - even of those alternatives favoured by central policy makers. The views of some participants may hold more sway than others. The range of alternatives considered may in some cases be influenced by the legislative process, including the time available, access afforded and standard procedures for consultation. The timimg of access in the process could be early or late and hence the degree of influence could be lessened or heightened, and central policy makers can regulate access and hence the expected alternatives they have to consider. The range of alternatives considered may be skewed by the control system in place, the participants in this control system, and the pattern of previous debates, depending on the importance (witting or unwitting) attached to such by central policy makers. This thesis will indicate to what extent and in what ways such factors can constrain the range of alternatives considered by central policy makers, indicating if possible the sources of goals and alternatives.

Participants. Since all participants have ideas which could contribute to central policy, all can be described as "policy makers". Some policy makers are more central, and some have an elevated capability for effecting their policy decisions as change in

central policy. Like Barrett and Hill, the thesis assumes that the policy making relationship between administrators and regulators is not hierarchical. Regulators also make policy and can influence the choices of policy makers who are more central (more central in that they are organizationally the administrators, who state decided policies). If one considers hierarchical *influence*, regulators may be superior in the number of their ideas which become official policy, compared to those of administrators which do.

Different goals and alternatives are favoured by different participants (entailing criticism of the goals and alternatives advanced by others). This thesis is interested in the emergence and submergence of goals and alternatives in the policy making process. The offering of alternatives as evidence in the policy debate is seen as potential participation. The opportunities for consultation (access) are also seen as offering the potential for participation. The consideration of alternatives, and the timing of this consideration, is seen as indicative of the degree of participant influence and therefore effective participation. Key decision makers may control or influence (purposefully or otherwise) the number and kinds of alternatives considered. They can keep alternatives off the official range of alternatives agenda, or postpone their appearance on it so that they cannot be considered and selected, or so that they can be considered more privately, under less pressure or with selected participants.

3.8 Pesticides Issues Examined in Detail

The substantive issues picked for detailed consideration fall into four areas, each of which is treated in separate sections (repeated in each of chapters 6, 7 and 8): the market and distribution; the registration process; spectrum of use; and use itself. Specific problems addressed in each area are: the extension of the PSPS to all suppliers and the introduction of a rapid registration scheme for imports; the data requirements of the registration process; the limitations on the use of a pesticide set at registration, specifically as regards minor uses; and conditions on use set outside registration, specifically the training of users.

The issues considered here therefore include three which were closely associated with the existing voluntary scheme for controlling pesticides, and with the reasons for legislating, and thus had a large existing situational burden. The fourth issue, the training of users, was further removed from the *status quo* of pesticide controls, was not related to the reasons for legislating, and was not initially stated as official policy, providing a contrast.

Major topics discussed in the context of these issues include the data requirements and standards in the registration process and changes in the administration to accommodate consideration of efficacy. The questions of public data disclosure and the introduction of fees for approvals are also discussed. Also seen as important is the setting of conditions to circumscribe pesticide use at the time of registration, and the

resulting debate on the marginalization of certain pesticides users and the expected changes in the types of approval sought.

Knoepfel and Weidner (1982) see constituent policies as a substantive issue (the policy core) embedded in programme shells. A policy concerned with cleaner air for example needs: a monitoring programme to identify problem areas and ascertain progress; regulations governing emitter behaviour; an administrative structure to enforce the regulations; and financial resources to sustain the structure. Interest groups may seek to influence any or all of these areas. For the purpose of this thesis all such issue-shells are regarded as adjacent and overlapping substantive issues, attended by a continual development of debate and decision evolving substantive policies (each of which can in turn contribute to the shape of broader policy or - more unusually - be shaped by broader policy). The "core" in Knoepfel and Weidner's conception is here called "broad policy" and is seen as spanning the many relevant substantive policies. When broad policy has been formulated and stated as a general aim, the extent to which individual policies fulfil it can be debated, and groups can seek to implement individual policies in new issue areas in line with it. Alternatively, the broad policy may become so generalised that every substantive policy appears to follow it, entailing apparent consensus. Groups may try to influence broad stated policy in the hope of engendering further change, perhaps at a later date or under new management.

4. Working Methods: Data Sources, Fieldwork and Analysis

The first section (section 4.1) presents the research methods and protocols employed in gathering data. Use of a variety of sources was considered important to the corroboration and therefore increased validity of the data. The methods included actual participation in the parliamentary process, documentary analysis and interviews with public and private interest groups and regulators. Interviews were conducted during and after the consultation period on the regulations. The interpersonal aspects of gathering this type of data pose threats to validity and care was taken to minimise these, in design (question type and format), in preparation, in interview conduct, in recording methods and in transcription and interviewee assessment. Section 4.2 deals with analysis of the data and explains which data were used, and for which chapters.

4.1 Data Sources and Fieldwork

4.1.1 Introduction to the Field

Early in this project the opportunity was presented of working as a research assistant to a member of Parliament who was very involved in the FEPB. In representing the MP I took part in many informal meetings to gather material for speeches and notes, for example with environmental, developmental, conservation and worker groups, as well as members of the pesticide manufacturing and supply industries and other MPs. In the lobbies and through attending committee and whole house debates it was also possible to meet and talk with members of MAFF and other Government departments.

In participating in the Opposition preparations and meetings on the legislation during Standing Committee stages in the House of Commons it was necessary to attend meetings to decide tactics and apportion work, personally undertake certain tasks and issues on the Bill, prepare speeches for all amendments for one MP including the lead speeches on three issues, and prepare issue papers on amendments for him and others. The job also included receiving, editing and promoting certain amendments for selection; telephoning universities for recent research results; scanning recent pesticide legislation from Europe and the US; keeping up with developments in the Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO); attending committee debates and all other debates from this stage to the regulations debate; liaising with MPs in handing late or additional information to the floor of the house; composing and gathering signatories to an Early Day Motion; checking and correcting *Hansard* rendering of speeches; and collecting documents relating to the parliamentary process, briefing documents, parliamentary questions (PQs), amendments and letters.

True participant observation is defined by Becker (1958) as a situation where

> "...the participant observer watches the people he/she is studying to see what situations they ordinarily meet and how they behave in them. He/she enters into conversation with some or all of the participants in these situations and discovers their interpretations of the events he/she has observed".

My work in Parliament fulfilled Becker's participant observation criteria to some extent in that although there was only observation in parliamentary chambers (confined to galleries and benches), participation was possible behind the scenes, including interaction within the context of action with some of the subjects of study. Investigation of participants' interpretations of events was not however undertaken in a formal or systematic way, and the time spent as a research assistant was treated more as a useful and intensive introduction to the issues and participants involved.

Working in Parliament for an opposition MP led to a degree of initial suspicion of my research motives in later interviews with managers from the agrochemical industry, but exposure to interest groups and regulators led to an awareness of the number and range of actors involved and greatly enhanced access to these groups for interview. This outweighed any negative effects, particularly since initial suspicions were easily overcome.

4.1.2 Additional Involvement

Invitations to attend meetings of the Pesticides Group of the Agricultural and Allied Workers' National Trade Group of the Transport and General Workers' Union (AAWNTG(TGWU)) and Friends of the Earth (FoE) were taken up during the parliamentary phase of the legislation. These invitations were as a researcher on the Bill and it was felt that groups acted in the way they normally would have in my absence. The meetings included comments from me as part of the group. Attendees at the FoE meetings included most other environmental and developmental group representatives who were negotiating priorities with the aim of coordinating their efforts. These were therefore particularly helpful towards matching groups to issues of concern. I also attended conferences attended mainly by public interest groups (OXFAM, 1985; London Hazards Centre, 1985).

It was also possible to attend a number of conferences held by or mainly attended by private interest groups to discuss the effects of the legislation on particular sectors. These included conferences held by the British Agrochemicals Association (BAA) in association with OXFAM (OXFAM, 1985), UKASTA (1986), The British Institute of Regulatory Affairs (BIRA, 1986), The Society for Chemical Industry (SCI, 1985), and a seminar on the changes in registration data requirements (Berry *et al*, 1989). In addition, a local ADAS group held a meeting at which I gave a talk on the legislation as it concerned farmers.

Again these conferences, especially the working-group sessions where ideas were expressed by individuals when surrounded by others of like interests, contributed enormously to my understanding of the problems as perceived by manufacturers, distributors and users of pesticides at various intermediate stages of the legislative and regulatory processes.

As with private interest groups, access to Government departments as an observer was not available. One useful opportunity did arise however to attend a formal consultation meeting on the regulations with my supervisor, based on our response (Tait and Russell, 1985) to the consultative document.

This provided some insights on the process itself: how the meeting was conducted, which actors were involved, which issues there was most interest in, what notes were taken on, and so on. The content of the meeting was noted, as with the above observation sessions, all of which were useful pointers to the intermediate states-of-play (between public occasions) in the policy process. The seminar on registration data changes mentioned above had PRSD and ACP speakers and all the other conferences had PICD speakers.

A fourth source of information was the Agriculture Select Committee which considered the Effects of Pesticides on Human Health, from February to July 1986 (House of Commons Agriculture Committee, 1987a; 1987b; 1987c). Evidence relating to the operation of the FEPA was taken from Government departments and private and public interest groups.

4.1.3 Documents

The documents collected were mainly in the public domain. From Parliament, collected material included the Official Journal (Hansard) debates for all stages of the legislation, which also recorded attendances and divisions on votes; written and oral answers to PQs; copies of all stages of the Bill, the Act and the ensuing Statutory Instruments (SIs); order papers containing amendment selections and progress on the Early Day Motion (EDM); pre-selection collections of amendments; and House of Commons library research briefs. Briefing documents and materials sent in by lobbies, as well as letters to, from and between Ministers, MPs and the public were collected. Agriculture Select Committee material was retained.

From the Government, useful documents included memoranda to Parliament, consultative documents and COPs issuing from the consultation period, and various departmental organization charts showing divisions of responsibility. No interdepartmental correspondence was available, and there was no access to administrative papers which remain confidential until they become public at the Public Record Office in 30 years time.

From private interest groups organisational newsletters containing news on actions taken and current positions were collected. Minutes of some private meetings on the

legislation were also obtained, as were conference papers including records of discussions. An attempt was made to obtain copies of interest group responses to MAFF's consultation papers on legislation and the regulations. Of those who prepared responses four out of nine private interest groups acquiesced. Reasons for non-cooperation included confidentiality and the heat of the debate about pesticide use.

The material collected from public interest groups was similar to that from private interest groups but, as would be expected, the degree of cooperation with respect to providing copies of consultation responses was higher (eleven prepared and eleven received).

National and local newspaper cuttings, trade magazines and press releases were also collected. Such documents were used mainly to complement or reinforce the interview material and particularly to provide a chronological grounding of public events, where such material was lacking or unclear from interviews.

4.1.4 Interviews

Interviews were conducted in two main blocks. The first included public and private interest groups and some MPs and took place in late 1985 and early 1986 during the period of consultation on the regulations. Actors' involvement in the legislation was easy to recall at at this time and opinions regarding the regulations were highly articulated because of the necessity to prepare written responses to MAFF. The second block of interviews was conducted with administrative and scientific civil servants involved in the pesticides legislation in participating departments of state. In anticipation of one interview per actor and consideration of the long time period over which information would be required, it was decided to stage these interviews after the main group of regulations had been passed. However it took approximately eight months after the initial request to obtain clearance in Whitehall, resulting in a longer than ideal interval before the interviews were conducted in late 1987 and early 1988.

Round One Interviews.

Scope. The scope of the first set of interviews was confined to public and private interest groups with an interest in pesticides. Within the same period a number of MPs known to have an interest in pesticides were approached, including those who were more involved in the legislation (Standing Committee H) or less involved (House debates in the Commons), and some were interviewed. In addition, some interviews with public and private interest groups were conducted in the second round, and also interviews with an advisor to one of the private interest groups. These are included here.

Access and Interviewee Choice. Access to the interest groups was excellent (no request for an interview was refused). In contrast, cooperation from MPs, other than those worked with directly, was minimal. Of 21 MPs not on Standing Committee H which considered the FEPB, nine replied to a letter enquiring about an interest in the

pesticides legislation, and none thought an interview appropriate, usually because their interest was simply in "reducing pesticides use" or "poisons use". Of 16 MPs on the Standing Committee, seven replied but only four were prepared to be interviewed.

The general form letters sent out prior to choosing the interviewees are set out in Appendices 4.1, 4.2 and 4.3. These were modified where necessary to take account of personal factors like previous informal meetings or requests for interview. The nature of my involvement in Parliament was clearly specified so that it could then be stressed that the present work was on my own behalf and for research purposes only. This was especially necessary as the fact seemed to be well known. A summary of letters sent, responses, follow up interviews and access to material is presented in Appendices 4.4, 4.5 and 4.6. After each interview a letter of thanks was sent which also followed up on promises of further material or help with introductions.

The initial choice of interviewee was guided by knowledge of individuals with a high degree of involvement in the legislation as identified during the time spent in Parliament, or as indicated by correspondence, responses to Government proposals, or information from personal contacts. Some groups more marginally involved were selected also, to achieve a broader view.

As the interviews progressed additional groups who were very involved but less vocal were uncovered. Also some groups who had an input to make had decided that their aims were similar to those of another group and had formed a coalition where one group acted as spokesperson on issues. In such cases it was necessary to have formal interviews only with the group which was actively involved, and informal talks and material collection sufficed for others. Other groups simply made a thorough examination of proceedings and satisfied themselves that their views were adequately covered without entering negotiations of any sort. In these cases (usually public interest groups) informal discussion and collection of material was all that was necessary. In the case of FoE, the Campaign for Freedom of Information (CFoI) and OXFAM, extensive previous contact in Parliament obviated the need for formal interview. Nine private interest groups were approached for formal interviews and 11 interviews were held. Similarly six public interest groups were approached, with seven interviews. Formal interviews with MPs totalled three.

The organisations and people contacted included the BAA; NFU; BASIS; BWPA; UKASTA; NAAC; AEA; PHIPCO; AAWNTG(TGWU); Green Alliance (GA); Soil Association (SA); Consumer's Association (CA); NSCA; Wildlife Link (WL); FFPS; RSNC; OXFAM; FoE; CFoI; LFC; RSPB; Dale Campbell-Savours MP; Joan Maynard MP; Peter Lloyd MP; John Wilson (research assistant to Brynmor John MP); and Salingbury Casey Ltd. (advisors to BAA). Details of the interviewees are given in Appendix 4.7.

Interview Design. The interview design focused on the experiences of the primary participants and enabled the interviewee to provide contemporary, anticipatory and

retrospective accounts of, and justifications for, action. Open-ended semi-structured interviews were carried out with representatives of the interest groups. The parts of the interview dealing with past events were semi-structured because of the need to ask a number of specific and/or corroboratory questions. Those parts which dealt with involvement, evidence and the effects of procedure and decision makers' views on involvement and evidence were more open-ended and discursive. The checklist of areas covered is contained in Appendix 4.8.

The questions were designed to probe the relevance of the legislation to the organisation, and the extent and content of interaction with MAFF and Parliament, to determine participation in the policy process and evidence given. Questions about the extent of interaction with other groups, the interests of the organisation, and the facility of access they felt had been afforded were also considered important as they could influence the extent and content of representations, the manner in which they were delivered and ultimately the way in which they were considered and/or acted upon. An attempt was made to gain an impression of the values, background and role of the interviewee: if he/she was primarily responsible for representations to MAFF then his/her worldview was important to consider, although this data was not specifically sought. By the same token, if the interviewee was not primarily involved, this would be an indication that another actor might be a more appropriate contact.

Questions enabling a more specific assessment of the importance of the legislation were asked, for example: (a) how much time the legislation took up at different stages; (b) what would usual behaviour be in it's absence; (c) were there other more important items on the agenda at the time; and (d) how other pieces of concurrent or past legislation would compare in importance with FEPA.

The checklist was not allowed to constrain the sequence of the interview, which was seen as an open-ended conversation with an exploratory purpose which could fairly naturally be guided to cover most of the points without particular regard to their order. However an effort was made to keep to sequences within blocks. In this way it was possible to pick up and follow new and interesting items not previously anticipated. Subsequent questions arising from interview information were therefore not curtailed. Interviews with MPs were similarly open-ended, but the questions were more personalised.

The checklist was brought to the interview and the numbers were used to code the subject of discussion in a notebook. Numbers were ticked off from the list as the interview proceeded, so that it was readily obvious which areas still had to be covered. If time was running out the remaining question areas were prioritized.

In asking questions, Belson's principles (as used in questionnaire surveys) were followed (Belson, 1986). Negative formulations were avoided, as were words which may have been unfamiliar. The use of qualifying clauses at the end of a question, posing compound questions, posing questions that explicitly offered alternatives or

were suggestive or "leading" of particular answers were similarly avoided. Some similarity of wording for the standard questions across all interviews was attempted by memorizing, although information already received often made rephrasing a tactical necessity. A degree of consistency was achieved by such rehearsal. The wording used in supplementary unplanned questions depended on the context.

The interview began with assurances about confidentiality, to avoid inhibiting the discussion. The sequencing of blocks and questions within blocks were arranged in a series going from more general to more specific. For example a question about duration and nature of involvement to fix the limits of the recall period would set the scene for the remaining questions, which would be about specific events and policies during that time.

Interview Protocols. The style of interaction followed certain general rules: not showing surprise or disapproval; not offering alternative explanations of questions; and not suggesting possible replies. However the rules were not invariably adhered to. For example surprise was used sometimes to elicit more material. In the interest group interviews there was no negotiation of information and information sharing was considered inappropriate.

As concerns self-presentation, an attitude of familiarity and implicit sympathy with the experiences of the interviewee was adopted, as this was expected to enhance the quality of the information. Attention was paid to specific knowledge so that the role of the actor could be understood and appreciated. This entailed detailed background reading prior to the interview on the organisation and the issues with which it was likely to be concerned. Cannell and Kahn (1968) believe that this is one of the main barriers to a good interview and observe that the interviewer must be perceived to be within range of communication on the desired topic.

With regard to more practical protocols, it was decided that the use of a tape recorder was not appropriate as it might inhibit conversation in what were considered highly sensitive and confidential areas. Instead, as much as possible was noted and coded with respect to the checklist. Apart from the checklist the main aid used was a diagram showing the dates of the main events in the legislative timetable, which was used as a prompt in the last resort. The checklist was kept on the left side of a hardbacked folder for easy reference, and the notebook on the right was flip-backed so as not to obscure it.

Round Two Interviews.

Scope. The second set of interviews involved civil servants in Government departments who were responsible for various aspects of pesticide control, and who had a decision making role before, during or after the development of the statutory system. Most interviewees were involved in the regulation of pesticides before the decision to legislate, but in the Pesticides and Infestation Control Department (PICD) and other divisions, some had been allocated solely to work on the legislation and/or

the regulations. These individuals were of particular value in explaining the roles and procedures involved in the legislative process.

Access and Interviewee Choice. Access to Government departments was excellent. A list of potential interviewees was prepared, and with the aid of a senior civil servant in MAFF a selection of potential contacts was made. The civil servant then approached interviewees on my behalf. However clearance for the interviews took several months to materialise. Further contacts were suggested during the first few interviews. After consultation on my choices and clearance, initial approach letters were sent to heads of divisions in which interviews were proposed. These requested permission to proceed and enclosed a standard letter intended to be sent to members of their staff. An assurance of personal confidentiality was given: this was enforced in all cases and was a condition of further access. The general form letters sent out to heads of departments and individuals are set out in Appendices 4.9 and 4.10 respectively. As in Round One, these were modified to take account of personal factors. Thankyou letters including follow-ups were sent.

The heads of both PICD and the Pesticides Registration and Surveillance Department (PRSD) were reluctant to allow some members of their staff to be involved in the interviews. PICD refused permission to interview several of their more junior staff but allowed approaches to heads of branches. PRSD refused access at a similar level but access at a higher level was possible as a result of personal commitments.

As the number of individuals who could be approached in one division was restricted, individuals' backgrounds were investigated so that, where possible, they had membership of two or three decision making groups or structures, or were involved in two or three different roles. Care was also taken to have minimal role-overlap between interviewees so as to achieve as wide a range of views as possible. In addition, a small number of individuals were chosen for their historical perspectives.

All of those contacted directly agreed to be interviewed, and without exception mentioned the constraints of the Official Secrets Act (OSA 1939, Cap 121) governing the confidentiality of advice to Ministers in so doing. The central decision makers interviewed were: administrative civil servants in the PICD of MAFF; scientific civil servants in the PRSD of MAFF; members of policy branches of the Department of Health and Social Security (DHSS), the Department of the Environment (DoE) and the Department of Trade and Industry (DTI); members of the Government's Advisory Committee on Pesticides (ACP) and its Scientific Subcommittee (SSC); and the Nature Conservancy Council (NCC). Ministers were not interviewed and the highest civil servant grade interviewed was grade 5 (assistant secretary level).

Seventeen individuals were interviewed, two of whom attended a single interview, and one of whom was interviewed thrice. The people interviewed and their area of responsibility were as follows: Head of PICD (MAFF); Head of Branch A, PICD

(MAFF); Head of Branch B, PICD (MAFF); Head of Branch C, PICD (MAFF); Director of Harpenden, ADAS-R&D(MAFF); Ex-Head, PRSD (MAFF); Present Head, PRSD (MAFF); Head of Risk Evaluation Branch A, PRSD (MAFF); Head of technical Services Branch, PRSD (MAFF); Director of Slough, ADAS-R&D (MAFF); Ex-Head Toxic Substances Unit, CDEP (DoE); Present Head Toxic Substances Unit, CDEP (DoE); Head of Pesticides Unit, CDEP (DoE); Chief Medical Officer, MTEPD (DHSS); Head of Chemicals Branch, (DTI); Chairman of ACP; Chairman of SSC; Pesticides Specialist, Chief Scientist's Directorate (NCC). Appendix 4.11 gives details.

Interview Design. Open-ended semi-structured interviews were carried out with all individuals, but unlike Round One interviews there was no standard checklist of questions. Questions were individualized and differentially prioritized as the concern was with roles and specific issues of concern in policy making. The more general towards more specific rule applied as regards sequencing of questions. Some negotiation of information was entered into in the Round Two interviews to be absolutely sure of the sequence of activities.

Interview Protocols. Interview protocols and self-preparation were similar to Round One, although particular attention was given to dress and manner, which is considered by Young and Mills (1980) to be particularly important when interviewing members of an elite such as Government actors, but is equally true of all interest groups.

The nature of the precise roles and methods of decision making used could not be anticipated, but special attention was given to detailed background reading on the person's likely roles, memberships, contacts, expertise and issues of concern. Appropriate sections of the Act, Bill and Consultative Document were rehearsed, as well as all recent updates. A summary of relevant information was prepared prior to the interview. Such background reading aided communication in interviews and hence conserved interview time. In the case of scientific civil servants this was particularly important, and many interviewees admitted that they were more at ease talking "jargon". My scientific background was especially advantageous in this respect. This gave better interview depth, conserved valuable time and preserved goodwill with respect to future contact and recommendations.

Questions relating to issue involvement were devised as guidelines. A "floating" list of questions to be answered during any of the interviews was maintained. Many arose from other interviews, and an attempt was made to allocate questions to those individuals thought most able to give a full answer.

After the Interview: Making the Transcript. After the interview, the notes were examined and any short hand notations, badly written words and questions remembered but not noted were filled in in a different coloured pen. Transcripts were made as soon as possible after the interviews. The right hand pages of a hard backed notebook were used for writing out transcripts of both the questions and answers. The left hand page

was devoted to various marginalia: comments related to the text which might be useful in analysis; further questions arising from the text to add to my "floating" list of questions in Round Two; alternative interpretations to the immediately obvious; actions to be taken; notes on points which might be lost on later reading (explanations of gaps or linking themes between statements, or the reason for an additional question); and words which were clear in notes but which may have been incorrectly heard as they did not then make sense. After making the transcript, a letter of thanks was sent which also followed up any practical questions which had arisen in the interview, and confirmed any arrangement for future contact.

A file was kept for each individual, containing literature associated with the organisation, original notes of preparation and question sheets, original interview notes, letters to and from, requests for material and material received, details of addresses, telephone numbers, dates letters sent and received, log of phone calls, letters, notes from phone calls and actions taken. The time each interview took and the amenability of the person to future contact were also noted.

After the Interview: Interviewee Assessment. Interviewee assessment consisted of attaining a "feel" for the constraints that an actor was operating under, as this is helpful when revisiting transcripts for the purpose of analysis. Impressions of the interviewee were noted, especially with respect to whether they were hesitant, cooperative or initially offputting; whether their attitude towards me changed during the interview or they had obvious preconceptions of my "motives"; whether they gave me full attention or there were interruptions or sidetracking; or whether there were questions they were not happy to answer.

Notes were made on questions which may have been unclear or which interviewees had difficulty in answering, as well as any explanatory answers given by myself. Difficulty was often indicated by implicit modification of a question by an interviewee in order to answer it better. Modifications were also sometimes made to avoid answering a question altogether, or in order to fit experience if this created an opportunity to express an opinion. Also noted were words which might have meant different things to different people. All of these considerations led to modifications of similar questions in subsequent interviews.

An attempt was made to identify factors or conditions which might operate against interviewees giving an accurate reply with respect to the required information. The kind of item considered included (a) the person's position as regards access to facts; (b) the person's authority (were they in a position to say what they wanted to); (c) the person's experience and capability; and (d) the extent of personal involvement in the legislation from documentary evidence and other interviewees. These helped in gathering an impression of incentives to be accurate; the likely period of direct involvement and therefore memory; and other constraints on the information given. In the case of access, for example, the rationale might be that if an organisation is

worried about its lack of inclusion in the process it may overstate the extent of its involvement. This sometimes changed the way questions were asked, for example not asking questions in such a way that they assumed maximum access. Additionally, the views of individuals on what might hinder certain admissions was noted so that subsequent questions could be modified to be more enabling of answers.

4.2: Content Analysis and Use of Results

Interview data, responses to the Outline of Proposals and responses to the Consultative Document were analysed, along with data in the public domain, such as the Outline of Proposals itself, parliamentary debates, and the Consultative Document itself. Content separation, into the categories outlined in Figure 4.1 was undertaken.

Figure 4.1: Content Analysis Categories

	Destination
EXISTING SUBSTANTIVE FACTORS: HISTORICAL	
Historical Pesticide Controls And Their Evolution. Views on Statutory Controls. Individuals' Involvement in the Past. Explanations of Events.	CHAPTER TWO
EXISTING SUBSTANTIVE FACTORS: PROXIMATE	
Events Leading to Statutory Control Decision. External Events with an Influence. Explanations of Events.	CHAPTER FIVE
CONCURRENT SUBSTANTIVE AND PROCEDURAL FACTORS	
Formal and Informal Procedures. Individual Roles with Respect to These. Individual Views with Respect to These	
SUBSTANTIVE ISSUES	CHAPTERS SIX SEVEN AND EIGHT
Evidence on Issues. Debate on Issues. Decisions on Issues. Reasons for and Views on Decisions.	
Worldview Statements from all of the Above Categories plus some more.	NOT USED IN THESIS: SEE APPENDICES
Individuals' Involvement and Interactions in Lobbying.	

The data were not always easy to place in a single category and a duplication rule was adopted in these cases. For example much "worldview" data were contained in issue-explanations, and this was useful in building a picture of an individual or

organisational worldview, and also in linking evidence with motivation in issue analysis. The data for each category were selected in separate sweeps of all interviews, bearing in mind, as much as possible, *only* the category in question, to avoid confusion.

A useful distinction for types of explanation was kept in mind for each sweep, following Brown and Canter (1985), who distinguish between three kinds of explanation: describing an experience; ascribing agency; and attributing morality. Descriptive explanations referred to by Kaplan (1964) are those that make the meanings of events or experiences clear in a simple and straightforward sense. They are most likely to be factual accounts or provide background information from which clear inferences can be drawn. Ascriptive explanations are identified by Antaki and Fielding (1981) as serving to ascribe *agency* to sequences of actions: define who is present or why events happen. They can refer to experiences of wants, needs or feelings; or to regular or consistent patterns of behaviour, such as habits, rules or norms. Morality explanations are explanations which justify, mitigate, excuse or defend actions, and entail blame to oneself or others (Brewin, 1982). In analysing explanations given in interviews the research aim was not only to represent actions, but also to understand them from the perspective of the primary participants.

The types of explanation sought differed in each category of content separation. Morality explanations were on the whole ignored initially, or were relegated to the worldview maps referred to below. Descriptive explanations were favoured in the construction of historical event sequences found in Chapters 2 and 5, whereas ascriptive explanations were deployed in conjunction with the authors own attempts to interpret events. In Chapters 6 - 8 descriptive explanations of personal participation or evidence offered on issues were again heeded first in reporting the development of the debate on the chosen issues. Ascriptive explanations played a part in the sections describing informal and formal Government arrangements concurrent to this debate. Morality judgements did come in to play in the reporting of perceptions of participative effectiveness.

For Chapter 2, descriptive historical explanations of pesticide controls and views on the necessity of a statutory system at different times were constructed from all interviews, cross-checked with each other and relevant documents, and used in conjunction with established literature, the task being to construct a multi-perspective account of the event sequence. Thus a more complete picture than was available to any one participant was constructed.

In Chapter 5, explanations as to why legislation came about were treated as new data which were relevant to the thesis in providing the immediate context for the main analysis in chapters 6, 7 and 8.

Chapters 6, 7 and 8 focus on the contemporary debate. Data on the substantive issue areas referred to at the end of Chapter 3 form the basis for interpretation of

policy making, participation and factors influencing them. Evidence and decision chronologies are established. In addition concurrent factors including formal and informal procedural arrangements, which might influence policy making and participation are presented in these chapters, as well as views of participants on the legitimacy of participation. Interpretive discussion sections align decision and evidence with alternatives generation, consideration and choice, and indicate substantive and procedural factors influencing the latter.

Checking on authenticity was essentially a mental exercise carried out whilst separating the contents and later writing the accounts which appear in Chapters 2, and 5. The degree to which a single interviewee contradicted, corrected or gave inconsistent information was considered; accounts were corroborated against secondary evidence such as documents; and the degree of concordance between accounts given by different interviewees of the same event was taken into consideration.

Some of the data were used to construct individual worldview maps (based on the template shown in Appendix 4.12), this exercise being seen as providing additional insights within the context of issue analysis, but not central to the thesis. Some data of this type, collected from PICD decision makers was however used directly in interpretation, since they were seen as central policy makers. The "evidence" data used in the issues analysis is nevertheless seen as inextricably bound up with and expressing "worldview".

Data on the timing, nature and extent of lobbying was treated similarly. It was tabulated and used to construct interactions spreadsheets (based on the blueprint shown in Appendix 4.13). Group involvement in particular issues was taken as implicit in the emergence of evidence on issues. However views on access to policy making were used in the assessment of participative legitimacy.

An amalgamation of statements on the formal sequence of events, checked with official versions and documents, was used to construct the time-charts which appear in Chapters 2, 5, 6, 7 and 8. These provide a baseline for the discussion of contemporary evidence and decisions within the context of issues analysis.

5. Pre-Existing Substantive Factors: The Context of Change

This Chapter deals with the period immediately preceding the official decision to legislate, from early 1979 to 10 May 1984. It analyses in detail the changes in factual circumstances, pressures and the climate of opinion which help to explain the policy reversal. The voluntary arrangements remained unchanged in this period, but the trade sanctions supporting them were disabled. A distinction is made between pressures which catalysed the decision to legislate, pressures which, although real, only contributed to the buildup of the feeling that there should be legislation, and marginal pressures about areas which ought to be included only *if* there were legislation.

Section 5.1 deals with broad-ranging recommendations or general events which may have influenced the following debate on pesticide controls. The second and third sections deal with the evolution of the earlier pressures for legislation, to involve pressure from Europe (section 5.2), and from industry (in turn explained in terms of pressures *on* the industry) (section 5.3). Section 5.4 deals with practices implemented by the regulators during this period, ahead of the decision to legislate. Section 5.5 deals with the possible reasoning behind the decision to legislate. It brings into play a consideration of other influences, internal to the Government, MAFF and the ACP, in attempting to explain how a combination of factors tipped the balance in Cabinet Office towards legislation. Figure 5.1 summarises key dates in this period.

Figure 5.1: Proximate Chronology (1979 - 1984)

1979	RCEP 7th Report.
1980	HL Select Committee. NCC (Dr Moore) recommends statutory controls to prevent misuse/abuse of pesticides and that PSPS should be returned in strengthened form.
1982	WPPR
1983	Conservative Government re-elected. European Commission formally objects to trade arrangements and BAA Code of Practice. Trade agreements disabled. MAFF states pesticides legislation unnecessary. Royal Society Report on Risk Assessment. DoE response to RCEP 7.
1984	MAFF Announces Legislation at Earliest Opportunity. RCEP 10th Report. Food Act. DoE response to RCEP 10.

5.1 The Climate of Opinion: Influential Reports and Events

5.1.1 The Royal Commission on Environmental Pollution

The RCEP's seventh report, on "Agriculture and Pollution" (RCEP, 1979) had a major influence on the content of the debate and the alternatives offered at all stages. It expressed concern over some aspects of pesticide control, especially the scale of application, the quality of the decisions about the need for pesticides and the type which should be used, and the environmental effects of excessive use and misuse. It laid emphasis on countering resistance to pesticides. The recommendations central to the issues considered in the thesis are discussed below; the full set of recommendations are summarised in Appendix 5.1.

On overall objectives, the RCEP said that it would seem desirable in principle to seek to ensure:

> "...that the amounts and toxicities of the chemicals used are as low as possible consistent with agricultural objectives, and it might be expected that such an aim would be furthered if it was embodied in declared policy for pesticide use...There is, however, no such policy in the UK; nor does the possible need for it appear to have been considered, notwithstanding the great increases that have occurred in the usage of these chemicals".

MAFF, and the agricultural and agrochemical industries' view was that if chemicals were applied in accordance with the manufacturers label instructions their safety was ensured through PSPS testing. The RCEP's concern was:

> "...that this attitude is likely to be conducive to the unnecessary application of pesticides and that it will tend to create a climate in which the investigation and exploitation of developments in control techniques which might reduce the dependence on these chemicals is not pursued with sufficient vigour. Unnecessary pesticide usage...is undesirable because of the risks of pollution both direct and indirect to man and to wildlife, because it is likely to enhance the development of resistance to the pesticide and so squander its benefits and because it may destroy natural predators and so lead to subsequent and heavier infestation of a crop and to dependence on further applications that would have been unnecessary. We think there should be a considerably more questioning attitude than is now apparent, especially in the Government departments concerned, to the scale of pesticide usage, and we believe that this should be exemplified by a declared policy to reduce usage to a minimum consistent with efficient production".

On safety and efficacy, they recommended that in spite of practical difficulties and the increase in resources that would be necessary ACAS and PSPS should be integrated in line with the proposed "Acceptance Directive", and that information relevant to the environmental effects of pesticides should be presented to farmers in close association with that on efficacy, so that both aspects could be considered in the selection of the most appropriate pesticide for particular applications.

> "The aim should be to assist the farmer not only to choose an efficacious product but one that will meet his needs with least risk of environmental

damage. We think this aim is more likely to be achieved if safety and efficacy are considered together, within a joint scheme".

On application machinery, the RCEP noted that the PSPS covered methods of application, and that pesticides were cleared for specific methods of application. But:

> "...in the matter of ULV/CDA, the arrangements for validating new application methods have not matched the pace of innovation and the desire of farmers to make use of these techniques...The potential advantages offered by ULV/CDA from both the environmental and farming viewpoints are such that we wish to see work proceed on the development and assessment of these techniques with considerably more urgency than we have discerned among the organisations involved...if there are to be early advantages an integrated approach is needed, by a team drawn from the several disciplines involved, i.e. biologists, chemists, engineers and safety experts...There is a clear need for official efficacy testing of equipment for spreading pesticides and for environmental considerations to enter fully into performance criteria...these testing facilities would form an integral part of a combined PSPS and ACAS scheme".

The RCEP felt that the case for a statutory control scheme should depend on whether such a scheme would reduce misuse and bad application practices. However they also expressed the following concerns: stricter controls over use would be needed in the future to support strategies for countering the development of resistance; there would be wider use of other pest control agents which may impose new hazards which would have to be controlled; the powers of the Consumer Safety Act to ban a particular pesticide was only a limited "stop gap" measure which fell short of providing a statutory basis for control over use; and if conditions set for safe and efficacious use were made mandatory and could be effectively enforced, legislation would be justified to give the control scheme the necessary cutting edge. The argument against legislation had been given by the ACP who thought a statutory scheme would be inflexible, costly and time-consuming, would tie up additional toxicological expertise, would require an increase in the number of civil servants required to operate it, and would not lead to improved standards. The BAA had urged that only the PSPS should be given statutory backing, rather than a detailed new Pesticides Act. They feared that political considerations might produce an act, compliance with which would entail increases in expenses, staff and time in companies and Government. The RCEP concluded that the case for statutory control was not strong enough to risk disturbing existing control arrangements - but also that Ministers should have the power to act quickly should circumstances change. They recommended that general reserve powers should be taken to enable the Government to make regulations and to appoint a statutory advisory committee. Statutory powers would bring pesticide control into line with the other countries of the European Community.

On information availability, although some of the information supplied by pesticide manufacturers should remain confidential for commercial reasons, access by the public, especially researchers, to some of the data and to proceedings between

parties to the voluntary scheme should be considered. The ACP should review its confidentiality arrangements with the aim of ensuring that information was not unnecessarily withheld.

The Government did not respond to the Royal Commission until late 1983, when it rejected the need for the general reserve powers. The PSPS was operating effectively and the Farm and Garden Chemicals Act (1967, Cap 50), the Control of Pollution Act (1974, Cap 40), the HSWA and the CSA gave firmer support to existing controls. Also "...any regulations that might be introduced would be designed to give the existing controls firmer support rather than change the way in which they operate" (DoE, 1983). On safety and efficacy combination, the Government was already making plans to do this. On information availability, the Government argued that they favoured the release of as much information as possible, but that a "guarantee of confidentiality" was essential to the success of the control arrangements. It enabled companies operating in a competitive industry to make full information available for safety assessment. As regards the ACP, "...the Government's consultations revealed a wide measure of support among interests concerned, both for the Committee and for the Royal Commission's proposals for extending its role", but "...the overriding consideration is to preserve its independence rather than to enshrine it in legislation". The Committee would publish annual reports, and its terms of reference would be widened so that it could advise on research work. On the issue of a policy aim, the Government accepted this main recommendation:

> "...indeed it is already the Government's objective...The Government concur with the Royal Commission's view that more efficient application techniques, further development of integrated pest control systems...emphasis on pest- and disease- resistant varieties and better forecasting techniques...offer the best prospect of fulfilling this policy objective".

On the assessment of new techniques of application, the Government would rather collaborate in approved industry testing facilities rather than introduce specific efficacy testing arrangements for equipment. On training, provided an industry-based national unified arrangement could be formulated, the Government was prepared to give official recognition to it, sponsor the training programmes, monitor proficiency standards and give official status to the certificates of competence issued. The Government would arrange discussions with representatives of the organisations primarily concerned.

The Tenth Report of the RCEP (RCEP, 1984) also affected consideration of evidence on certain aspects by the Government, which brought out its response during the pre-parliamentary phase (see Chapter 6). The Government would have had access to the report at this time, before it was published. It concluded that Britain's pollution control policy was in need of a new momentum. Within Government, arrangements for the formulation of environmental policy needed strengthening. It was essential to reverse a decreasing emphasis on environmental protection, characterized by significant

reductions in the resources available for research, monitoring and forward thinking. On information availability its recommendation was that:

> "...a guiding principle behind all legislative and administrative controls relating to environmental pollution should be a presumption in favour of unrestricted access for the public to the information which the pollution control authorities obtain or receive by virtue of their statutory powers, with provision for secrecy only in those circumstances where a genuine case for it can be substantiated...Administrative and statutory requirements for public information, including those relating to pesticides...should be brought progressively onto a common footing...In cases where the protection of trade secrets is agreed to be justified, the position should be reviewed regularly, and Ministerial certificates withdrawn or varied at the earliest opportunity".

The Royal Commission restated that "...we adhere to the recommendation of the Commission's Seventh Report that the voluntary PSPS should be given statutory force".

The report's theme was the need for anticipation and prevention to be brought to bear on pollution control policy. Formal procedures were needed to ensure that the principle of "Best Practicable Environmental Option" (BPEO) was made a reality. This was reinforced by a new concept of "Best Environmental Timetable" (BET), in which clear goals set in advance allowed polluters to plan their pollution control investments. Continuity and anticipation were the key features of these principles. "Pollution control policy, and environmental policy generally should be accorded the priority and resources adequate for their integration in the national decision making process, so that their potential benefits can be realised and at least cost".

In December, the Government brought out its response to the RCEP's tenth report (DoE, 1984). It contained one major policy initiative on the disclosure of information, but there were no plans to strengthen the capacity of the DoE to anticipate new environmental problems.

The Government accepted the thrust of the recommendation for public access to information which the pollution control authorities obtained or received by virtue of their statutory powers. However it said it would be wrong to introduce a new uniform system which imposed unacceptable costs on industry or the control authorities or which required "...cumbersome bureaucratic procedures, for example to obtain exemptions from disclosures on agreed grounds". However "...our overall objective in this area is to satisfy as fully as possible the public's legitimate demand for information without imposing a regime which could undermine the proper relationship between the pollution control authorities and industry". Annual reports on the work of the ACP were again promised.

With respect to the recommendation on BPEOs the Government replied with a restatement of the principles of its pollution control policy. Environmental goals, it said, must be realistic and based on sound science; the BPEO concept was accepted, as was the importance of new technology in cutting abatement costs and winning export

orders. But the Government rejected or glossed over virtually all the RCEP's recommendations for administrative change, leaving environmental policy making in a weak position. A CBI proposal for an advisory body on BPEO was one casualty: having rejected the RCEP's earlier proposal that the Industrial Air Pollution Inspectorate (IAPI) should be extended to tackle cross-media air pollution, and having failed to complete its draft circular on BPEO, the Government was now saying that the BPEO was embodied in its approach to "major environmental considerations" and that where necessary they would continue to seek advice from experts on specific issues rather than consult an additional standing advisory committee. They therefore saw no need for a statutory advisory committee.

As concerned BET and pollution control planning there were to be two new measures: the DoE, with IAPI and the Office of Population Censuses and Surveys was to launch studies to improve methods for detecting changes in health patterns around emission sources; and DoE was to work with the Genetic Manipulations Advisory Group (GMAG) on guidelines governing possible hazards from the release to the environment of genetically modified organisms.

5.1.2 The Royal Society

The civil servants involved in regulating pesticides and in administration said that they had taken great notice of the Royal Society's Report on Risk Assessment published in 1983 (Royal Society, 1983). Particular note was taken of the chapter on "Laboratory Experiments for the Estimation of Biological Risks", marked up for me by a PICD administrator. These sections noted that:

> "Some adverse reactions in man are predictable in only general terms from animal experiments...the laboratory tests on animals are of limited value in making quantitative predictions of the incidence of these reactions in man because of the species-specific differences in metabolism and response to drugs...Another important consideration is the reliability of the test procedures currently used. The scale on which it is practicable to carry out most animal experiments means that the chance of failing to observe some reaction or event is probably of the order of 1 in 10^3 or 1 in 10^4. This does not really form an adequate basis for extrapolation of the risk to the human population, which involves many millions of individuals, and is the reason why exposure should be restricted as far as is reasonably practicable, despite the value which has been ascribed to the ADI [Acceptable Daily Intake] or the TLV [Threshold Limit Values]". "The UK regulatory authorities have long recognised, as have many other national administrators, that it is impossible to give an assurance of "complete safety" or "zero risk". It is therefore in the public interest to avoid exposure to potentially hazardous chemicals in so far as this is reasonably possible...Exposure to environmental contaminants also needs to be reduced as far as practicable".

One of the conclusions was that a possibly regulatory formula was needed "...in which a consistent commitment to the steady reduction of risks and detriments is coupled with the use of both quantitative guidelines and the open weighing of costs and benefits".

5.1.3 Other Influences

At a conference on the principles of pollution control in 1980, Dr Moore of the Nature Conservancy Council argued that the PSPS should be retained, in a strengthened form, because it was doubtful whether a more effective scheme, based on flexibility and cooperation, could be found. However the existing system of control was unable to keep the use of pesticides under scrutiny. This made it difficult to prevent farmers using excessive quantities of approved pesticides, to prevent the use of poison baits, and to assess the affects of pesticides on wildlife. He believed that statutory controls would have an important deterrent effect on such abuses (Moore, 1981).

5.2 The Crisis: Pressures from the EC

The decision to legislate appears to have been catalysed mainly by extant *obligations* arising from Community membership and insisted upon by the EC, but additionally influenced by anticipated future requirements from proposed and adopted EC Directives. The calling into question of UK practice with respect to trade obligations contained within the Treaty of Rome is treated in section 5.2.1. (This was brought about mainly through the complex proprietary rights debate in the UK and the pressures of a maturing agrochemical industry, as is explained in section 5.3.) Section 5.2.2 deals with the future harmonisation of registration requirements; section 5.2.3 with proposed residues directives; and section 5.2.4 with the implementation of existing directives on marketing and use, and on classification, packaging and labelling.

5.2.1 Trade Obligations: The BAA, BASIS, and Pesticides Imports

In the summer of 1981, price differentials between UK and continental markets enticed some brokerage companies and farmers to import UK agrochemicals back into the UK from the continent and sell them here, undercutting the originating UK companies' home market price. Products identical to those in the UK which originated in the continent were also imported. Alick Buchanan-Smith (Minister of State for Agriculture), speaking of this period said that "Substantial values of pesticides, claiming to be identical with comparable products developed for safe use here, were imported into the UK this year" (*Financial Times*, 1982).

Clearance for such parallel imports under the PSPS could not be effected because, although the chemicals in question were identical to those already cleared for use in the UK (and in most cases had already been cleared under the PSPS since they had originated here),[1] they were treated as new chemicals in that PRSD refused to use the data they held for clearance purposes, insisting that the importer produce the data to support a new clearance, as PSPS rules required.

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1 Interview, MAFF(PRSD), Westoning 11/1/88.

Since all data supporting a registration is treated as proprietary in the UK, even if the product has come to the end of its patent life, a generic manufacturing or trading company would have to secure permission to use the data (which would involve the payment of compensation) if they were not to go through the lengthy process of producing their own data.[2] In the case of identical products, UK manufacturing companies may deny that their own products are in fact their own, even fudging batch numbers or changing minor details of formulation to prevent identification,[3] in effect making it impossible for short-term opportunists to obtain clearance.

Parallel importation as described here, was a practice which had been pursued for a long time previous to 1981.[4] However distributors found themselves in a new situation where marketing a product without PSPS clearance risked ousting from the scheme and consequent debarment from receiving other cleared products from BAA or BASIS members. Thus the BAA's agreement with BASIS effectively limited distribution, and therefore use, to products which had been cleared under the PSPS,[5] and the BAA was seen to be policing a scheme which kept prices on their products high. BASIS trading companies who chose to ignore the rules simply relabelled the product with an English label in order to sell it. Such merchants and contractors thereby broke the contracts they had signed with BASIS not to market or store uncleared products (Broadbent, 1986). BASIS made 42 visits to check on suspected storage on non-cleared products (BASIS, 1984). In December 1982 five firms were suspended from BASIS for periods ranging from 90 - 180 days and members of the BAA were asked not to supply them with their products (*Guardian*, 1983). According to the Guardian all five firms had been supplying one chemical which had not been cleared. The firms concerned complained to the European Court that by withholding their means of trading, BAA and BASIS were breaking free trade laws.

Some individual farmers also undertook parallel importing of chemicals for their own use. In this case, the chemical is considered already evaluated (effective clearance), but these imports had labels in foreign languages or carried recommendations that differed from those on products cleared for use in the UK (*Financial Times*, 1982), and the HSWA, requiring employers to instruct employees in the safe use of pesticides - which includes the provision of a label stating precautionary measures in English - was being infringed[6] in the absence of repackaging.

A complaint was sent to the European Court of Justice on the basis of the unfairness of a system where a product could not be marketed without clearance data, when the data was already in place for that product and was technically public when

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2 Interview, MAFF(PRSD), Westoning, 11/1/88.

3 Interview, MAFF(PICD), Harpenden 1/2/88.

4 Interview, MAFF(PRSD), Westoning 11/1/88.

5 Interview, MAFF(PICD), London 6/5/86.

6 Interview, MAFF(PRSD), Westoning, 11/1/88.

the product had come off patent. The complaint was laid against the manufacturing companies involved.[7] It is not clear whence the complaint to the European Court arose, but according to one PICD interviewee it was from the NFU[8] who considered that MAFF was being obstructive, in effect *preventing* imports.[9]

The EC was specifically concerned about paragraph 9 of the PSPS which assures a person who notifies a pesticide to the Ministry for the purpose of seeking safety clearance that the data submitted will be used only in considering notifications.[10] The Commission drew the attention of the Ministry to recent judgements of the European Court of Justice which in their view meant that the Ministry ought to be prepared to use the data already in its possession where an identical product is the subject of a later notification (BASIS, 1983). MAFF upheld its position with regard to its role in the protection of proprietary rights, that is on not using data held by the PRSD to clear identical products[11] under the PSPS, even though the second company did not want to manufacture the pesticide. The Commission said that it regarded the UK Government's position in this regard critically because of the competition implication (UK companies were in effect being dissuaded from trading with the continent), arguing that the arrangements for safety clearance could contravene Article 30 of the Treaty of Rome[12] by restricting trade in community products identical to those which had been cleared under the PSPS to a degree greater than necessary for the protection of human health as provided in Article 36[13] of the Treaty (MAFF, 1984m). According to an interviewee from the Department of Health[14] another criticism was that the only information source recommending pesticides was the ACAS list of approved products, and it only included British pesticides.

Soon after the complaints were lodged, the European Commission started to investigate the trade agreements, indicating that they believed these to be infringing

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7 Interview, MAFF(Slough Labs), London 9/11/87.

8 Interview, MAFF(PICD), London 17/12/87.

9 Interview, MAFF(PRSD), Westoning 11/1/88.

10 "(9) Departments undertake that the information supplied in accordance with paragraph 7.3 above will be treated as confidential; will not be disclosed to persons other than those whom departments wish to consult and who have given the undertaking referred to in paragraph 10 below [to sign a non-disclosure and non-commercial interest undertaking]; and will not be used without the notifier's consent other than in connection with the notification to which it relates. The Ministry of Agriculture, Fisheries and Food and the Health and Safety Executive, as coordinators, undertake to deal expeditiously with notifications, although Trade Associations recognize that Departments must have enough time to study the possible hazards before agreeing to a product being cleared for use".

11 Interview, MAFF(PRSD), Westoning 11/1/88.

12 Treaty Establishing The European Economic Community 1957. Part I: Principles. Title I: Free Movement of Goods. Chapter 2: Elimination of Quantitative Restrictions Between Member States. Article 30 "Quantitative Restrictions on imports and all measures having equivalent effect shall, without prejudice to the following provisions, be prohibited between member states".

13 Part I, Title I, Chapter 2. Article 36 "The provisions of articles 30 to 34 shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on the grounds of public morality, public policy or public security; the protection of health or life of humans, animals or plants; the protection of national treasures possessing artistic, historical or archaeological value; or the protection of industrial and commercial property. Such prohibitions or restrictions shall not, however, constitute a means of arbitrary discrimination or disguised restriction on trade between Member States".

14 Interview, DHSS, London 6/10/87.

Article 85(i) of the Treaty of Rome[15] by preventing or restricting competition, and it seems likely that the BAA and BASIS were invited to submit their observations at this point. In June 1982 BASIS submitted its scheme to the Directorate-General for Competition of the EEC to be considered for exemption from Article 85(i) under 85(iii) (a clause allowing discretionary exemptions to be made), and also to the Office of Fair Trading in the UK for assessment in respect of the Restrictive Trade Practices Act 1976 (Cap 34) (BASIS, 1984). In December 1982 officers from Brussels inspected the BASIS office files. Sometime thereafter, a letter of intent, dated 23 February 1983 (Haigh, 1987) was sent from the European Commission to the BAA, formally objecting by reasoned opinion to the two trade agreements and criticising the BAA Code of Practice (which supported the agreements by sanctioning only pesticides handled according to them) as distorting competition, infringing Article 85(i) of the Treaty. The Commission considered that sanctions against those who broke BASIS rules were not compatible with European free trade. The BAA was warned that if they continued to police their industry through BASIS they could be fined up to 10% of their annual turnover (*Guardian*, 1983), which could have meant £700 million for a firm like ICI. BASIS was therefore not considered exempt from the treaty, although the UK Office of Fair Trading had decided that the Restrictive Trade Practices Act did not apply to it. The Commission sought to have changes made to the BAA Code of Practice and the BASIS scheme, to ensure no conflict between them and community law.

The pressure from the Commission caused the BAA's sanctions policy to collapse, in that the BAA had to tell its members not to act against firms breaking the BASIS Code of Practice, and this left firms free to ignore BASIS (Broadbent, 1986). Some distributors withdrew from BASIS when it became clear that sanctions against them could not be maintained and were likely in any case to be withdrawn. After sanctions were withdrawn, about 50 companies withdrew from BASIS (BASIS, 1985a). The BAA realised that it could no longer police the PSPS and that enforcing legislation would be necessary.

According to a BASIS newsletter (BASIS, 1984) BAA and BASIS had meetings with representatives of MAFF, and with the Minister of Agriculture, to try to persuade the Government to introduce a regulation making it illegal to sell agrochemicals which had not been cleared under the PSPS, including a mechanism to enable *proven* identical products to be cleared in the scheme by the quickest and most reliable means.

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[15] Part III: Policy of the Community. Title I: Common Rules. Chapter I: Rules on Competition. Section I: Rules Applying to Undertakings. Article 85(i): The following shall be prohibited as incompatible with the common market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market, and in particular those which: (a) directly or indirectly fix purchase or selling prices or any other trading conditions; (b) limit or control production, markets, technical development, or investment; (c) share markets or sources of supply; (d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; (e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

In summary, the main pressures on the Government were

(a) the import of cheap pesticides, which increased pressure on the BAA, and passed it to the Government;

(b) the EC's criticism of the Government's position with respect to proprietary data and restriction of trade; and

(c) the EC criticism of the trade agreements directed at the BAA's Code of Practice, another pressure passed to Government via the BAA.

5.2.2 The Future Harmonization of Registration Requirements

In addition to the Commission's concern about the parts of the PSPS which restricted trade, it wanted the UK Government to make other changes in the PSPS to speed up the handling of notifications. It saw this as increasing cooperation between safety authorities in member states in line with its harmonisation concerns. Following the concern over the import of uncleared pesticides, the Minister of State for Agriculture, Alick Buchanan-Smith, retorted by publicly calling for the *EEC* to adopt a Community-wide scheme for the registration of agrochemicals, saying that it was time they acted on their six-year-old proposal for "...a modest measure designed to establish a method for the acceptance of plant protection products on a Community basis", which would operate in parallel with national registration systems. "The time has come to bring this directive into operation at the earliest opportunity", he said (*Financial Times*, 1982). He was referring to the Commission proposal for a Council directive concerning the placing of EEC-accepted plant protection products on the market which was proposed in 1976[16] under which manufacturers could have the choice of applying for Community-wide marketing, giving "European Community Acceptance" which would be granted by national authorities according to the provisions of the EC directive (Cailleres-Briquet, 1986).

Adoption of the plan had been delayed because of concern over uniformity whereby manufacturers and distributors would be able to use the least stringent regulatory authority. There was also concern that national authorities would be deprived of their ability to adapt the use of pesticide products to local conditions (Brickman *et al*, 1985). Both would remove the national prerogative to allow or disallow entry of pesticides (whether identical or not). The cost of registration procedures would also vary, again attracting manufacturers and distributors to possibly less stringent authorities. MAFF's argument was that if the "EC Acceptance" option were available then there would be no need for them to introduce a rapid clearance scheme for identical products.

[16] OJEC, C2212, 9, 1976.

5.2.3 Proposed Residues Directives

A third reason for contemplating a statutory scheme was based on the fact that the UK was almost alone in having no statutory residue limits for pesticides in foods, whereas the preference of the Community as a whole was for a mandatory system of controls (Haigh, 1987). The first EC Directive on residues,[17] which established maximum residue levels (MRLs) for about 40 pesticides on certain fruits and vegetables, was delayed because member governments did not accept the Commission's proposal to set maximum pesticide tolerances for residues, a procedure which would have required each government to prohibit the marketing of produce exceeding the levels. Instead, the final agreement simply required governments to allow onto their markets produce meeting the minimum EC standards, whilst giving them the option of allowing or refusing products with higher residue levels. As the directive was optional as regarded the fixing of limits and the requirement to ensure compliance by random sampling, the UK had decided to take advantage of this derogation, arguing that the PSPS worked satisfactorily. It adopted Codex standards as presumptive MRLs (Gilbert, 1987), relying on PSPS recommendations for use and harvest intervals to ensure that residue levels did not create a risk to human health (Haigh, 1987). Thus the UK had avoided the need to set up official standards for residues. The EC however told the Government that by not having fixed levels the UK was leaving it open to discriminate against imports and this could again be seen as restrictive trade practice.[18]

Further proposed directives on residues in and on cereals, and on foodstuffs of animal origin[19] were delayed by the UK on the grounds that the PSPS was adequate, but these directives when adopted were known to be going to be non-optional, and had to be implemented by June 1988 (Haigh, 1987), and it was this knowledge that led the UK to consider that national legislation to cover the Directives would become necessary, and to take powers in FEPA to "...specify how much pesticide or pesticide residue may be left in any crop, food or feedingstuff".

As it transpired, a further requirement of these Directives, that "...member States take all necessary measures to ensure, at least by check sampling, compliance with the maximum levels laid down", had a derogation, requested by the UK, which allowed member states not to apply the limits if (a) a residue monitoring system which attained the same effect was applied, and (b) total population dietary exposures in representative surveys of typical diets were assessed. However this did not apply to pesticides exported to other member states or to pesticides imported from outside the Community.

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17 76/895/EEC (OJEC L340 19:12:76); first proposed in 1969.

18 Interview, DHSS, London 6/10/87.

19 Respectively 86/362/EEC (OJEC L221 7:8:86) and 86/363/EEC (OJEC L221 7:8:86) when adopted (proposed 6:3:80). These lay down maximum residue limits for organochlorine and organophosphorous pesticides, applying to cereals and food of animal origin. Member States may not prohibit or impede the "putting into circulation" of products on the grounds that they contain pesticide residues if the residues are below these limits.

The non-optional items might have been seen by the Government to necessitate legislation at some later stage. However although such legislation was not immediately necessary, it would have been difficult to pass legislation that did not take control over residues, without attracting the EC's attention.

5.2.4 Implementation of Directives 79/117 and 78/631

A further factor in the decision to legislate may have been that without it, Directive 79/117 on marketing and use,[20] and 78/631 on classification, packaging and labelling[21] could not have been enforced.

Directive 79/117 prohibited the marketing and use (but not the manufacture, export or emergency use) of nine persistent organochlorine and five organo-mercury compounds (Haigh, 1987), and these uses were withdrawn under the PSPS. Member states could permit uses in certain specified cases but had to inform other member states and the Commission. The UK was at the time making use of these derogations, principally for certain uses of mercury based compounds (MAFF, 1986a). The breakdown of the voluntary control system may have accentuated a feeling that total compliance with the restrictions on marketing and use was not feasible without statute.

Directive 78/631 was also relevant to distribution and use. In this case, packaging and labelling requirements were specified, with a classification of "very toxic", "toxic" or "harmful". Pesticides were not to be marketed unless they complied with the Directive, and in the UK the PSPS's established procedures already implemented this. As with 79/117, those who complied with the PSPS complied with the Directive, but with the breakdown of the support afforded by BAA and BASIS, full enforcement could not be guaranteed without statute.

Both Directives are now implemented by the Control of Pesticides Regulations (1986/1510), and 78/631 additionally by the Classification, Packaging and Labelling of Dangerous Substances Regulations (1984/1244), the responsibility of the HSE.

5.3 The Crisis: Pressures from Industry

The import of cheap pesticides and the EC interest in the BAA and BASIS brought ongoing concerns about the PSPS and proprietary rights to a head. Price competition and the questioning of the rights of manufacturers to claim ownership and hence confidentiality of data after patents on products had run out (proprietary rights) appear to have been the main pressures on the agrochemical industry which led them to support legislation. Not all members of the BAA wanted legislation however: their push for legislation was an "on balance" consideration. As far as BASIS was concerned, they had no option but to push for legislation. The loss of their BAA-backed role as enforcers of the PSPS meant the credibility of their role as standards-

[20] 79/117/EEC (OJEC L33 8.2.79): the "Prohibitions Directive".

[21] 78/631/EEC (OJEC L114 29.7.78).

keeper had to be promoted in legislation if they were to retain viability as an organization.

Competition and proprietary rights have not always been such an important issue to the agrochemical industry, and there has always been some unwanted trade from the continent which was ignored. Until this time there was very little pressure on the agrochemical industry, with high growth and little competition between companies. However from the late 1970s the industry had been entering the phase of development known as maturity: as more pesticides were produced the number of potential new markets declined, so that there were now few slots in the market capable of absorbing new high-cost pesticides in competition with existing products. The market, in other words, was saturated. Also, because public pressure for greater emphasis on conservation in the countryside was increasing, some multinationals had diversified into biotechnology crop protection products, which could cut back on environmentally undesirable inputs like pesticides. The biologically active pesticides that were cheap to make and safe to people and the environment had become difficult to find. In 1985, 25% more money was invested in R&D than would ever be recouped in sales, and the market had become starved of new pesticide products. This combination of market saturation and new product starvation had led to a significant decline in the inflation-adjusted price of pesticides, making it all the more difficult for companies to fund further R&D (Tait, 1988). The rate of growth was expected to decline still further (Tait, 1981).

Such market forces naturally led to increasing competition for markets, and many agrochemical companies had already gone out of business. Total demand for pesticides was likely to decrease further because the agricultural policies chosen to deal with food surpluses entailed taking land out of agricultural production. Under such conditions price competition, especially from extra-UK markets must have assumed a more threatening aspect, and the import of chemicals from the continent which created such concern in 1981 particularly threatened the livelihoods of the British companies with a UK-only market in pesticides.[22]

Because there were fewer new products, despite increased R&D expenditure, a higher importance was given to preserving a company's manufacturing rights to those which it already controlled. However there were also a greater number of generic manufacturing companies trying to obtain those rights for themselves. Research based companies were therefore clearly interested in patent extensions and the restriction of data availability, only releasing data by commercial agreement (if they did at all), while generic manufacturers were interested in obtaining licences to the manufacturing rights when a patent ran out, and the facilitation of data availability. In 1981, patents on a number of major products, for example Glyphosate,[23] were running out and large

[22] Interview, BPCA, London 17/2/86.

[23] Interview, MAFF(PRSD), Westoning 11/1/88.

R&D companies were fiercely contesting cases brought by generic companies for a "licence to rights" to sell in competition. The original company in these cases objected to the license being given unless compensation was paid, and it was left to the courts to decide whether to grant the license, and what the level of compensation should be. This, in combination with the threat of fines from the EC for obstructing the import of pesticides by denying their identicalness (and thereby forcing inability to register through the withholding of the necessary data), worried the larger companies also.

The multinational R&D companies were used to complying with legal registration schemes, for example in the US, so legislation in the UK would have little impact on them, so long as there was some data protection. The UK-only R&D manufacturers were reluctant to have legislation.[24] They were keen to keep a voluntary scheme, as they had more reason to fear price-competition from the continent, having only one market, and more reason to wish to protect their data. They saw legislation as threatening, in that their data would be used to register identical products (whether UK-originating or not) and so imports would be facilitated.

Within the BAA membership there are MNCs, UK-only R&D, and also combination (R&D and generic) companies who wanted to protect data on their own products whilst also wishing to secure rights to manufacture other companies' chemicals. Generic-only companies were usually not members of the BAA. The MNCs were largely in favour of legislation and the UK-R&Ds largely against. The combination companies were largely in favour of legislation if an MNC, but largely against if a UK-only company. As might be expected the BAA expressed the research-based companies' views more than the generics, "...because generics depend on R&D companies, so if R&D are not in a good environment, neither will the generics be".[25] However, in pushing for legislation, it was actually expressing *MNC* R&D companies' views over *UK* R&D companies views. Although its members preferred a voluntary scheme, the BAA probably knew that it could no longer perform this service for them in the absence of sanctions, and that it therefore had no option but to push for legislation, and, having made this decision, to be *seen* to push for legislation.

It was in the BAA's interests, and in the UK Government's interest, to support BASIS in its remaining role as a standards body, both to preserve its image and to secure a standing for it in the new legalised system. BASIS had been the Government's way of postponing a legalised system, and it now owed allegiance to it for having performed this function.

Other possible reasons for the BAA pressure for legislation were the possibility that legislation might act to *restrict* trade, in controlling *all* distribution; and that some liability for the results of misuse and abuse of products might be displaced from the industry onto the Government, in controlling use.

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[24] Interview, MAFF(PRSD), Westoning 11/1/88.

[25] Interview, BAA, London, 12/12/85.

If the confidentiality of data within the registration scheme could be preserved, and the data only used for approving identical products, income on products could be protected to some extent after patents ran out. Also, legislation could have been viewed as potentially promoting growth or arresting decline by creating new slots in the market and/or a longer lease of life for "pesticides" as a whole.

5.4 PRSD Implementation Arrangements Ahead of FEPA

The RCEP noted, in 1979, that the question of whether the safety and efficacy schemes should be amalgamated was under consideration by MAFF, prompted by the EEC proposals for the Acceptance Directive incorporating safety and efficacy in clearance schemes for markets throughout the EEC. MAFF noted that the principle of integrating the PSPS and the ACAS commanded general support, although integration would present practical difficulties and take time to implement. One difficulty was that an extensive increase in resources would be needed to undertake the backlog of efficacy evaluations for products now outside the ACAS.

The Government's response to the RCEP's Seventh Report (DoE, 1983) said "...the Government will shortly be discussing with the interests concerned how best to achieve the objectives of this recommendation". They had however, been discussing this for some time, more because of a concern with the proposed Acceptance Directive than with the RCEP's recommendations. They said:

> "As a major first step a Pesticides Registration Department has been established within MAFF. This has brought together the separate cadres of MAFF specialist staff previously engaged separately on safety aspects of crop protection, food storage practice and animal husbandry chemicals, and those engaged on efficacy evaluation of crop protection products...The ACP will in future...be concerned not only with the safety of products but also with their efficacy. Safety considerations will however continue to have first call on the Committee's attentions and resources".

In 1984 the PRSD decided to start preparing a more scientific "evaluation document" appraisal for the SSC, thus defining their role as scientific *advisers* helping their Government departments make judgements on approvals, and not judgement formers themselves. This evaluation document became the public disclosure document, in line with Ministers' wish for public disclosure during the parliamentary phase. In the parliamentary phase Ministers appeared to be directing this development, and it is unlikely that they would have promised such disclosure during the public debate unless it had already been implemented, as with all other areas of controls. However they did take the credit for this apparently "new" policy at that time. This was frustrating for members of PRSD:

> "...what [the public] failed to grasp was that during 1984 - 1985 *we* decided that we should be accountable to the public and help our departments. When we do the committee report, we decided that instead of a few bits of paper we

should put in the scientific chit-chat".

They felt pressure from pesticides coming under attack and wanted to put levels of toxicity into perspective for the departments by detailing chemistry, properties, manner of use, fate and behaviour, and persistence. They "had very strong views on format". It was stressed that "...this was a local decision: [name], [name] and me. The scientists saying we should be more scientific...the idea was initiated *here*. In those days we ruled the roost". This interviewee made it clear that the move was not made with the legislation in mind: "I don't mean that we did it in anticipation of this, but it came before and so made it easier".[26] Being less accountable for judgements on approvals in addition to a standardisation of the evaluation document could also have the effect that manufacturers would be less likely to use personal pressure on members of PRSD to influence judgements. Since they have less contact with the committees and administrative departments this would mean less overall day to day influence.

5.5 Deliberations Leading to the Decision to Legislate

The discussions with the EC the wake of the BAA crisis clearly signified to MAFF that the EC expected something to be done with respect to the trade practices, and that "their attitude would cause problems".[27] In 1982, with the BAA also lobbying for a statute the Cabinet Office wanted to manage this without recourse to primary legislation. In the words of one MAFF civil servant, "...we could have seen the EC off at this stage: all you've got to do is give them a firm answer really, but the EC had got the industry rattled...",[28] and the first search, for *a means of regulating supply* , was initiated.

At this stage the first objective of central policy makers at Cabinet level became to appease the EC. The approach taken was remedial: to try to modify the EC's attitude so that they saw it as less of a problem, but then to remedy the problem situation themselves. Thus to begin with the Government discussed the situation with the EC to see whether their concerns could be minimised. It was realised that the EC intended to produce an opinion which would result in the trade sanctions being disabled and a further loss of control of the supply chain: this was not in the interests of the trade or the UK Government, who concurred in their view that control of the supply chain had to be regained swiftly. As described in Chapter 2, there had been a history of loss of control and then regaining it, but thus far the UK Government had avoided assuming full responsibility for control. The Government realised that this time *they* would have to take the responsibility. The other immediate problem in the view of the EC was the obstacle to processing identical products applications, which was the responsibility of

[26] Interview, MAFF(PRSD), Harpenden 1/2/88.
[27] Interview, MAFF(PICD), London 17/12/87.
[28] Interview, MAFF(PICD), London 13/3/86.

the Government. The Government must speed up the process, and use the data they held on existing approvals to this end.

It then became clear that the EC favoured a full scale statutory scheme, and that directives on residues and other matters would have to be complied with in the future. MAFF's departmental lawyers also advised that control of residues could not be covered by other legislation, such as the Food and Drugs Act 1955 (Cap 15) which related only to direct adulteration of food.

The harmonisation of data requirements and residues limits were envisaged by the Government as causing problems in the future, but were less immediately pressing. Although appeasing the EC was an objective, the EC had not insisted on legislation, and none of their concerns in themselves forced the Government to consider primary legislation. A rapid clearance scheme for identicals was set up without legislation. However the effect of the EC's actions on control in the supply chain led the Government to review existing legislation with a view to creating subordinate regulations to ensure that all agrochemicals were registered before being marketed. There would be an advantage in taking powers to implement EC requirements ahead of the implementation date, in that the Government would appear cooperative, at least in this area, which was not one of major political or sovereignity importance.

At this time the Cabinet decided that it wanted a full position paper on pesticides, to see whether the legislation covered future needs adequately and to determine the necessary extent of controls should they decide to have a pesticides bill (mainly as a result of the need to control supply). There were many questions in the House of Commons about the Government's position with regard to the EC and the trade agreements. The Government also had to decide on its long overdue response to the RCEP report.

The level of public and officials' consciousness on the need for legislation was raised by the RCEP report (RCEP, 1979),[29] although neither the Government nor the ACP accepted that there should be legislation *as a result of it.*[30] However with the pressure from the EC and industry, and bearing in mind that they might decide to legislate, the commitments which would be given in the Government's response to the RCEP (DoE, 1983) had to be carefully considered.

Civil servants examined secondary legislation to see if it could meet the demands of the EC and industry, and the items it would be necessary to include in any primary legislation, including items recommended by the RCEP. It seems likely that the position paper had been started in early 1983, at the time of the EC letter to BAA/BASIS. The long delay in the response to the RCEP was probably a result of Government uncertainty on the necessity of legislation as a result of EC and industry pressure which had become full blown in 1981 and 1982. As the *Farmers Weekly*

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[29] Interview, MAFF(PICD), London 28/9/87.

[30] Interview, ACP, Leicester 18/1/88.

(1983) said, "It is understood that the delay in Ministry action has been due to toing and froing between MAFF and the DoE about which pieces of legislation might prove applicable in new regulations". It therefore seems likely that the primary versus secondary legislation debate was concurrent with deliberation on the Government response to the RCEP. In 1983 the Government must have decided that it could delay primary legislation for a little longer, and so wrote a negative response to the RCEP. As one DTI interviewee put it, "...the Government resisted right to the end - for doctrinaire reasons they thought the PSPS was marvellous because of its flexibility".[31] This resistance continued to apply, at least officially, right up to the public announcement in 1984 that there would be legislation.

In preparing the position paper, participating Government departments held meetings to decide what would be needed in new legislation. The debate on legislation in relation to the RCEP report had continued between MAFF, DoE and the Department of Transport (DoT) since 1979, and the DoE would have preferred to see action on the aspects to which a commitment had been given. As concerns the tone of the position paper, the PICD was influenced by current reports.[32] According to a MAFF interviewee[33] the volume of official and academic reports in circulation must have raised consciousness to such a degree that they tipped the scales in support of legislation through civil servants taking a degree of initiative with the policy content of the position paper submitted to Cabinet.

The Royal Society Report on Risk Assessment (Royal Society, 1983; see section 5.1.2) was also influential within PICD[34] and the ACP.[3536] As noted above, its main theme was that, because of the limits to risk assessment in general, we should attempt to reduce the quantity of new chemicals distributed in the environment. This was in line with the aim of the RCEP report to reduce pesticides use to a minimum consistent with efficient production, in the context of low volume application methods.[37] Some MAFF administrators and scientists at Harpenden were beginning to assume a more cautious outlook.[38] The civil servants involved were divided on the question of legislation, but the "polluter must pay" principle, and regulation, was seen to be more appropriate than ideals of "freedom of the individual" and the flexibility of voluntary schemes. There was therefore a rising new school of thought on risk assessment within the civil service at the same time as the EC enquiry on the BAA and BASIS schemes.[39]

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31 Interview, DTI, London 11/11/87.

32 Interview, MAFF (Harpenden Labs), Cambridge 25/11/87.

33 Interview, MAFF (Harpenden Labs), Cambridge 25/11/87.

34 Interview, MAFF(PICD), London, 13/3/86.

35 Interview, SSC, London 30/11/87.

36 Interview, ACP, Leicester 18/1/88.

37 Interview, SSC, London 30/11/87.

38 Interview, MAFF(PICD), London 13/3/86.

39 Interview, MAFF(PICD), London 13/3/86.

The Government felt vulnerable on environment and food policy, and needed to be seen to be doing something on the environmental front.[40] They were also under pressure from environmental interests[41] with regard to environmental contamination by pesticides[42] and aerial spraying.[43] The conservation lobby was also active.[44] Their contention had always been that too much land was farmed unnecessarily, as the UK was producing more food than it needed, and that in future more land would have to be diverted to recreational uses.[45] This meant that there was a focus of public interest (which was likely to grow) in land use and conserving wildlife. Less land used for farming or less intensive farming were both possibilities which would minimise pesticide use in line with the RCEP recommendation. Environmental interests overlapped considerably with those of the conservationists at this point. According to the civil servants concerned, the time was ripe for environmental legislation, and their "long view" prompted them to look in detail at existing statutes on *environmental* issues, to see whether the legislation would cover the issues they knew would be important in the future. They concluded that the environment was not protected adequately from pesticides by existing legislation. This new "environmental gap" as it was presented by the civil servants, provided the politically timely reason for legislating.

Whether it was due to the strength of the civil servants' arguments or the conviction of the Government that it needed environmental legislation for political reasons, "the environment" must have tipped the scales, already loaded by the more serious pressures. Apparently it was suggested by the DHSS that residues could have been included in a Food Act which they were promoting in 1984, (became Cap 30),[46] but the pressures were wider than this and it was considered better to focus on the environmental aspect.[47]

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40 Interview, MAFF(PICD), London 6/5/86.
41 Interview, AEA, London 10/2/86.
42 Interview, NCC, Peterborough 29/1/88.
43 Interview, AEA, London 10/2/86.
44 Interview, DHSS, London 6/10/87.
45 Interview, AEA, London 10/2/86.
46 Interview, DHSS, London 6/10/87.
47 Interview, DHSS, London 6/10/87.

Once it was decided to take a statutory route, for the above reasons, the protection of the environment was stressed, especially controls on misuse and abuse in line with the RCEP report. The opening line of the pesticides section of the FEPB stressed safety to the environment, and this was deliberately placed in the pesticides section and not at the beginning of the Bill.[48]

Although a combination of these additional factors led the Government to develop primary legislation, the initial concentration on the immediate political problems and the remedial attitude to them set the scene and later led to a bias in the consideration of all other issues in that alternatives were screened by the Government to ascertain minimum effect on the existing control system.

Despite these deliberations, just eight days before the announcement of the decision to legislate, the Commons Parliamentary Secretary for agriculture merely stated that the PSPS had served the nation well and would be given statutory support if necessary (MAFF, 1984i).

[48] Interview, MAFF(Slough Labs), London 9/11/87.

6. The Contemporary Debate: Pre-Parliamentary Phase

The Right Honourable Michael Jopling MP, Minister of Agriculture, Fisheries and Food, publicly announced the Government's intention to legislate at the earliest opportunity to ensure the safe and efficient use of pesticides on 10 May 1984 (MAFF, 1984a). This chapter covers the period from this date to 7 November 1984, when the Food and Environment Protection Bill went to Parliament. PICD issued a consultative document giving an outline of its proposals for a new Bill (henceforward "the proposals")(MAFF, 1984b) on 22 June. The proposals and the responses and debate associated with them constitute the bulk of the data in the substantive policy analysis sections of this chapter. PICD expected the Bill to be introduced in the next parliamentary session. The closing date for responses was 30 July 1984. On 15 July 1984 MAFF began circulating its draft Bill around Whitehall. On 31 July, the day after the consultation period ended, the Department of Transport announced additional controls on aerial spraying (DoT, 1984), and Parliament recessed on 1 August. Responses to the proposals were still coming in throughout August and there were meetings between MAFF, the NFU and the BAA who were worried about certain proposals. MAFF collated the responses in September. The Bill was due to be considered by the Cabinet Legislation Committee in October. On October 25 MAFF announced that "...the comments received from the consultations have been taken into account in preparing primary legislation" (MAFF, 1984c).

The Bill was passed through Cabinet Committee and was allocated a slot in the next session of Parliament, as the Food and Environment Protection Bill (*Financial Times*, 1984). It was published on November 7 and introduced into the House Of Lords. Key dates in the pre-parliamentary phase are given in Figure 6.1.

6.1 Debate and Decision in Substantive Policy Development

6.1.1 Broad Policy Objectives

The MAFF press notice of the 10th May, accompanying the announcement of the legislative intention, stated that:

> "This decision has been taken following increasing pressure on the present non-statutory arrangements, both from the import of cheap uncleared pesticides from the continent and from the European Commission which has been critical of the competition implications of the trade arrangements which support the Pesticides Safety Precautions Scheme" (MAFF, 1984d).

In a press release on the proposals (MAFF, 1984e) the document was described as outlining "...the aim of the legislation, and the powers which Ministers wish to take to regulate the approval of pesticides, their distribution and their use". It introduced the

Figure 6.1: Pre-Parliamentary Phase Chronology (1984)

MAY 10 MAFF announces decision to legislate.

JUN 22 Proposals for legislation published for consultation.

JUL 15 Draft Bill circulated in Whitehall.
JUL 30 Official closing date for written responses to proposals.

AUG Parliamentary recess.

SEP MAFF collating consultation responses.

OCT Bill considered by Cabinet Committee.

NOV 7 Food and Environment Protection Bill published.

concept of charging industry to cover the cost of approving pesticides, and proposed the conditions to be satisfied before approval could be granted. The reasons for legislation were again described by the Government, this time by Mrs Fenner: "In the first place, the Government is looking increasingly hard at all environmental questions and in doing so is directly reflecting the concern felt by people that we may not be doing enough to protect the environment we live in". In addition the voluntary scheme had, she said, come under pressure from two sources: "...firstly from the import of cheap, uncleared pesticides, particularly when currency fluctuations have made continental prices attractive; and second, from the European Commission who have criticised the competition implications of the trade agreements which support the PSPS".

At the beginning of June the BAA drew up a nine-point action plan on which it believed Government legislation on pesticides should be based. It was said to be hoping the PSPS would be backed by legislation in the next parliamentary session based on its own plans. The BAA director said "For years we have made representations to both this and the last Government to introduce statutory support. Now this has been finally accepted, we must make sure the legislation is effective". The BAA wanted no sales of pesticides without PSPS clearance; legal controls on pesticide imports with the onus of proving identicalness to UK-market products resting with the importers and hefty penalties; delays in processing notifications reduced, with the Government providing resources for registration; and enforcement of user label

compliance. They also suggested that safety and efficacy should be combined into a single registration scheme, and that they would lobby for more information about the work of, and greater recognition of the independent role of, the ACP (Chemistry and Industry, 1984a).

On 16 October Michael Jopling gave a speech at the annual dinner of UKASTA outlining what he called "...our main objectives as we prepare our enabling legislation for Parliament". Firstly, a desire to protect the environment had led to a concern over the efficacy as well as the safety of pesticides, as it was important that no more chemicals than essential were released to the environment. Thus all pesticides would be screened for efficacy in future, a change referred to as having "major implications", and there would be detailed planning after the Bill was passed. Secondly, the Pesticides Safety Precautions Scheme had not effectively regulated imports, minor uses, novel application systems, tank mixes and so on:

> "...most of which, because of the care which has been taken with the clearance of pesticides hitherto, is safe, but with which the statutory scheme will have to occupy itself with to some degree if it is to deliver what it seeks - a higher standard of safety to the worker, the consumer, wildlife, the crop, the bystander and the neighbour, the environment - than it now does".

They did not want to strait jacket the industry or unduly restrict imports. The extension of regulation to the use of pesticides was a new departure, which would be implemented. Thirdly, the new arrangements:

> "...would look different from the old because of the amount of information which will be available about their operation. We have been concerned that for reasons of commercial confidentiality the procedures which we now operate have done good only by stealth, and have as a result suffered from some lack of public credibility. I fear we have not been demonstrating the fullness of the testing we insist on in our clearance processes. Nor have we perhaps presented all the information which we have on pesticide use and pesticide residues in the most informative way. We are looking at this, and I am sure we can strike a better balance" (MAFF, 1984g).

The Queen's Speech in November referred to the Bill as aiming to provide "better protection of food and the environment" (*Financial Times*, 1984).

The broad aims of the Outline of Proposals were:[1] "...to empower Ministers to control the supply and use of pesticides in the UK with a view to protecting the health of humans, animals and plants; having regard to the environment generally; and with a view to securing the efficient use of pesticides".

These were not contested, with both the BAA "supporting" the Government's aims[2] and FoE congratulating the Government on accepting the (presumably FoE's

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1 Proposals: Paragraph 1.

2 Response to Proposals, BAA, Undated 1984.

own) broad aim.[3] However there were various responses that sought to add to the broad aims. The RSPB[4] pronounced it practical and desirable for the Minister to take a lead in exploring the scope for reducing overall levels of pesticide use. Research into minimum input programmes, Integrated Pest Management (IPM) and more efficient methods of application, together with operator training and an improved advisory service to farmers would all make a valuable contribution to this end. In relation to the environment, the RSPB said it would like to see the Government taking the opportunity to secure higher standards of environmental protection than just making the PSPS statutory would ensure.

In addition a number of policy items were perceived as omissions from the proposals. FoE said that there was a need for a clear Government statement on reducing use.[5] The IEHO also said that there was no proposal to limit the amount of chemicals used: the Government had failed to recognise the buildup of resistance due to the pesticides treadmill.[6] FoE noted the need to promote IPM, for a policy for exports, and for a policy of moving from broad spectrum to pest-specific pesticides.[7] The RSNC wanted a commitment to research into alternative chemicals.[8] FoE proposed systematic epidemiological research on the effects of pesticides on the health of workers, users and those in spray drift areas, and better PSPS test procedures, for example regarding wildlife and invertebrates.[9] The Ramblers Association (RA) said that:

> "...the manner and scale on which crop spraying is now practised is becoming as unacceptable to the public as straw-burning. The Government should take much firmer action to control spraying and should encourage research into methods of reducing spray drift and into farming techniques that reduce dependence on pesticides".[10]

The provision for strict controls over marketing and distribution was endorsed by one academic because previously restrained behaviour in developing markets was unlikely to continue in the face of falling demand for pesticides. However the most urgent need was to control the user, as there was widespread misuse and abuse of pesticides. There was a need to encourage vigilance and concern by emphasising education.[11]

FoE suggested that the opportunity of supplanting all previous pesticide legislation with this one piece of proposed legislation should be used to consolidate all aspects of

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3 Response to Proposals, FoE, 19/07/84.
4 Briefing Note on Proposals, RSPB, 22/10/84.
5 Response to Proposals, FoE, 19/07/84.
6 Response to Proposals, IEHO, 8/8/84.
7 Response to Proposals, FoE, 19/7/84.
8 Response to Proposals, RSNC, 8/8/84.
9 Response to Proposals, FoE, 19/7/84.
10 Response to Proposals, RA, 30/7/84.
11 Response to Proposals, Joyce Tait, 28/09/84.

pesticides law, which were presently contained in 59 acts and 35 orders, regulations or rules, but noted that the Government had no such intention except in the case of aerial spraying.[12]

6.1.2 Products Subject to Approval and the Case of Identical Imports

Products Subject to Approval. It appeared that all pesticides categories covered by the PSPS could come within the scope of the new provisions. Thus wood preservatives, products for protecting animals against ectoparasites, plant growth regulators, some plant preservatives, pest control agents and pesticides used in water systems and buildings as well as agrochemicals could be included.[13]

Non-Agrochemical trade associations complained about this wide scope. The animal health group of the Association of British Pharmaceutical Industry (NOAH) worried that "...the definition of pesticide was so wide that it could cover a number of things which could be called pesticides, for example substances 'protecting animals against ectoparasites' or products which are not defined as medicines and are not registered under the Medicines Act".[14] UKASTA said "I think the Ministry didn't realise what a big job it had taken on - the ramifications of the word 'pesticide' includes all sorts of things".[15] And the BWPA: "Basically we are very unhappy with the proposals especially with the definition of what a pesticide is. 'Pesticide' should relate to a purpose rather than to a chemical".[16] The BPCA appeared to be totally unprepared for the proposals: "From the moment the Outline of Proposals was out we realised they had got it completely wrong as far as our side was concerned. We realised we were being misrepresented".[17] The AEA was surprised because previously "...when we heard a rumour that MAFF were going to revise the PSPS we told [the PICD] we would like to know where our interest slotted in. We were told it was none of our business".[18]

Inclusion under this provision meant that the other proposed provisions directed towards agrochemicals rather than pest control and wood preserving chemicals (for example data requirements) would be inappropriate. Both the BWPA and the BPCA pointed out that nothing covering training and certification for firms active in their fields had been included (ENDS, 1984b), something they had long demanded, whereas agrochemical training and certification for storage and supply had been covered. Presumably this was because BASIS already existed and had a training role.

The IEHO was concerned about the withdrawal of facilities previously utilised by local authorities at the Slough laboratories in relation to control of public health pests.

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12 Briefing Note on Proposals, FoE, 14/9/84.

13 Proposals: Paragraph 13.

14 Interview, ABPI, London 28/1/86.

15 Interview, UKASTA, London 28/1/86.

16 Interview, BWPA, London 29/1/86.

17 Interview, BPCA, London, 17/2/86.

18 Interview, AEA, London 10/2/86.

This it felt was due to emphasis on agricultural products, which was the underlying theme in the proposals.[19]

The fact that some products which had previously been outside the scope of the PSPS might also be included was suggested by the phrase "manufactured products". This suggested that anti-fouling paints might be controlled. The BWPA and the Paint Manufacturers Association had been in disagreement over whether preservative stains and varnishes should fall within the voluntary scheme, and this longstanding argument was highlighted by the possibility that they would now be regulated statutorily.

The BAA on the other hand were more concerned with inclusion than exclusion, and accepted the proposals so long as products used with pesticides, such as adjuvants and wetters, were included.[20]

Identical Imports. The main provision in the proposals was to create general powers to enable Ministers to "...make regulations to prohibit the import, supply or use of any pesticide unless Ministers have approved conditions for its supply and use".[21] The relevant requirement was that *all* suppliers (importer, manufacturer and distributor) were to seek approval of a pesticide prior to its use in the UK.[22]

The BAA supported the proposals so long as: approval would need to be obtained, and not simply sought; and would be needed before first sale, not simply first use; and providing that users importing products for their own use were included in the definition of an importer.[23] The BAA said they did not want identical products coming in with French labels for health and safety reasons.[24] BASIS likewise wanted importers to have their labels cleared.[25] The CA[26] implied that market protection might go too far: with regard to the EEC, would there not be a problem with the UK requiring submission of data prior to approval, where a product was already approved in another member state? If harmonisation of approvals was to take place in the future under the "acceptance directive", there should not be such a legal impediment (assuming identical products).

At the beginning of June a Government initiative to curb parallel imports of drugs into the UK was announced. Mr Clarke (Minister for Social Security) said:

> "A new statutory instrument tightens the provisions which were allowing substantial quantities of imported drugs from all over the world to be imported exempt from our product licensing. New licensing arrangements for EC manufactured drugs will ensure that nothing from other EC member states is marketed in the UK unless it is either identical to or has no differences in therapeutic effect from a product licensed here".

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19 Response to Proposals, IEHO, 8/8/84.

20 Response to Proposals, BAA, Undated 1984.

21 Proposals: Paragraph 2.

22 Proposals: Paragraph 3.

23 Response to Proposals, BAA, Undated 1984.

24 Interview, BAA, Peterborough 29/1/88.

25 Interview, BASIS, London 27/1/86.

26 Response to Proposals, CA, 22/8/84.

As for pesticides, this initiative had been stimulated by the entry of cheaper products from Europe, undercutting British product prices (*Chemistry and Industry*, 1984b). However in this case there was no apparent European Commission involvement.

MAFF's press release of September 6 (MAFF, 1984f) mentioned that the legislation would not outlaw imports from the continent, avoiding restraining free trade. They had been discussing with the NFU and the BAA the introduction of a rapid clearance scheme for identical products from abroad which would facilitate trade, and hoped to introduce this system as soon as possible.

6.1.3 Conditions Applied to Pesticides in the Approvals Process

The inclusion in the proposals of more detail on the concept of efficacy excited much comment, and is dealt with under the first three headings in this section. The proposals noted that, in accordance with its commitment (to the RCEP) to look for a means of combining the PSPS and ACAS (that is safety and efficacy data handling), the Government intended this legislation to permit such and would frame regulations accordingly (MAFF, 1984h). The meaning of the term "approval" was to encompass both senses, of "safety clearance" under the PSPS, and of "approval for efficacy" under the ACAS.[27] Existing cleared pesticides, not previously cleared under ACAS, were to be deemed "approved".[28] Account would be taken of alternative efficacious products which might be markedly safer, in exercising powers to withdraw or withhold approval.[29] An explanatory note[30] stated that:

> "...this is not intended to imply that when approval is sought for a new pesticide it risks refusal if an efficacious product already exists...The provision is intended to cover the situation where of two products of comparable efficacy, the use of one involves markedly greater safety risks than the other. In such a situation Ministers might wish to evaluate the risk/benefit equation of the pesticide in the light of the need for its use".

The next three headings deal with issues felt to be serious omissions in the proposals, the substance of the testing requirements, specific chemicals, and the more fundamental issue of reliance on one source of data. Two further headings deal with information disclosure and fees.

Merger of PSPS and ACAS. The aim of merging PSPS and ACAS initially seemed laudable to environmental groups such as FoE,[31] WL,[32] RSNC[33] and the CA,[34] who had long urged such a merger in line with the RCEP proposals, and had assumed that all

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27 Explanatory Notes to Proposals.

28 Proposals: Paragraph 5.

29 Proposals: Paragraph 5.

30 Explanatory Notes to Proposals.

31 Response to Proposals, FoE, 19/07/84.

32 Response to Proposals, WL, 21/8/84.

33 Response to Proposals, RSNC, 8/8/84.

34 Response to Proposals, CA, 22/8/84.

products would have to be submitted for efficacy approval if it came about. The BAA supported the merger, so long as it did not result in future delays in bringing a product to market.[35] UKASTA was against it, arguing that it would make the process slower and more expensive and suggesting a simple standard for efficacy within the process which could later be raised to full approval after a period of commercial use (*Agricultural Supply Industry*, 1984).

A strict efficacy test was seen by FoE[36] as:

> "...being in the best interests of the public, the environment and the agrochemical industry. Using pesticides which are wholly or partly ineffective increases environmental, health, and safety risks, and constitutes needless overuse. There are already suggestions that many farmers employ pesticides which are not approved for efficacy. This may suit the chemical companies but it is not acceptable to the public, and cannot be a sign of competent Government regulation".

Cleared Pesticides Deemed Approved. The proposal to extend efficacy approval to pesticides already cleared for safety but not formally approved as efficacious[37] was controversial. Far from the RCEP's idea of increasing efficacy testing, the degree of efficacy testing would be very substantially reduced overall.

The Guardian (1984a) considered that the proposal made a mockery of the previous approval testing, and thought it suggested "...that there will be a more relaxed approach to proving efficacy, perhaps working towards a complete dropping of this bit of consumer protection". There would be no re-testing, "...even though toxicology techniques have advanced greatly since many of the pesticides were first introduced" (*Guardian*, 1984b). Martin (1984), in the *New Scientist*, similarly thought that the proposal was a sign that testing for efficacy would be relaxed.

The BAA, for obvious reasons, accepted this proposal, although they were concerned that "only" already-cleared pesticides were to be deemed approved. They recommended that products already inside the approvals process should have staging arrangements made to enable efficacy data to be produced.[38] Environmental groups were more concerned with the 2,300 products which might escape efficacy testing[39,40,41,42,43] and might be used more freely, with the reduced consumer protection this entailed given a public assumption that "approval" meant efficacious.[44] FoE and the RSNC found the proposal particularly distasteful in conjunction with the statement

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35 Response to Proposals, BAA, Undated 1984.
36 Response to Proposals, FoE, 19/7/84.
37 Proposals: Paragraph 5.
38 Response to Proposals, BAA, Undated 1984.
39 Response to Proposals, FoE, 19/7/84.
40 Response to Proposals, CA, 22/8/84.
41 Response to Proposals, RSNC, 8/8/84.
42 Response to Proposals, SA, 24/7/84.
43 Briefing Note on Proposals, RSPB, 22/10/84.
44 Briefing Note on Proposals, FoE, 14/9/84.

that the word "approval" was to be used to encompass the sense of efficacy approval in addition to that of safety clearance.

Recommendations were based on an aim of efficacy testing for all products, and were that: products which were only safety cleared should not be accepted or should be revoked until efficacy data were available;[45][46] such products should be assessed for safety and efficacy in a continuous review;[47] all safety cleared pesticides should be approved but those without ACAS efficacy approval should have their overall statutory approval revoked (FoE alternative 2).

There was concern that legal backing would be given to unreviewed pesticides whose clearance might rest on inaccurate safety assessments,[48] and to the use of products which had given concern in the past (2,4,5-T, OCs in general, Dieldrin and Aldrin in particular, Aldicarb, Mevinphos, Captan, Thiram, Dichlorvos and Oxy-demeton methyl).[49] FoE's recommendation on this point was that a Rebuttable Presumption Against Registration (RPAR) such as that operated in the US[50] could be built into the Bill to give Ministers a clear way of dealing with contentious products.

Alternative Efficacious Products. The BAA said that the availability of alternative efficacious products should only be considered when there was adverse safety data available concerning a particular product.[51] In the absence of markedly different safety risks the law would make it easier to market new "me-too" products with no proven benefits over their predecessors. FoE on the other hand wished such consideration to extend to all products (assuming that information on their efficacy would be made publicly available), not just those submitted for approval. Pesticides suspected of causing a serious hazard should never be approved in the first place where adequately tested safer products were available for the same purpose.[52] The RSNC went further, saying that approval should be withdrawn when there was evidence of a hazard, even where no alternative existed.[53] An advantage of such measures was seen by FoE to be the reduction of the total number of pesticides in use, because the likelihood of pests developing resistance to a wide range of products would be diminished and some pesticides could be held in reserve for emergency use.[54]

The RSPB[55] and FoE[56] identified a weakness in the proposals in that since efficacy

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45 Response to Proposals, RSNC, 8/8/84.

46 Response to Proposals, FoE, 19/7/84.

47 Response to Proposals, CA, 22/8/84.

48 Response to Proposals, SA, 24/7/84.

49 Briefing Note on Proposals, FoE, 14/9/84.

50 The RPAR was brought in in the US to provide for de-registering products which appeared to pose unacceptable risks (to health, wildlife etc) but to leave the option of re-registration open, should manufacturers be able to produce adequate data (National Research Council, 1980).

51 Response to Proposals, BAA, Undated 1984.

52 Response to Proposals, FoE 19/7/84.

53 Response to Proposals, RSNC, 8/8/84.

54 Response to Proposals, FoE, 19/7/84.

55 Briefing Note on Proposals, RSPB, 22/10/84.

56 Briefing Note on Proposals, FoE, 14/9/84.

trials results would be absent for cleared products deemed approved, it would be impossible to evaluate the "risk-benefit equation" of comparable products. Martin (1984) considered that the power to ban the import, sale or use of a pesticide if an alternative efficacious product already existed could be used to protect manufacturers from inexpensive foreign imports even if the product was already approved for use in this country. He suggested that this could be another way of circumventing the Treaty of Rome (as well as making a mockery of the Government's philosophy of efficiency and value-for-money through competition). The BAA certainly supported the new proposals, largely because "...they would help to block the imports of cheaper pesticides from Europe, called parallel imports" (*Financial Times*, 1984).

The Substance of the Tests: Types, Criteria, Standards and Harmonisation.

The proposals required all suppliers to provide such information as was considered necessary by Ministers for the purpose of granting approval.[57] It was to be left to Ministers' discretion to decide what information might be necessary.[58] This requirement was not contested. No detail was given and it apparently merely enshrined the *status quo ante*. However the BAA noted that it would expect to be consulted on what information would be deemed necessary,[59] presumably concerned that information requirements could be changed at any time.

The CA considered it a serious omission that details of the assessment criteria to be used in testing were not included in the proposals.[60] The RSPB wanted to know if the tests would provide sufficient data to evaluate the "risk-benefit equation" mentioned - would there be tests of target-specificity?[61] The Institute of Environmental Health Officers[62] was concerned that the method of application should be taken into account in judging efficacy. This was prompted by the issue of aerial spraying which was allegedly less than 10% efficient yet accounted for the greatest proportion of public exposure and complaints. The RSNC[63] recommended that a test of volatility be introduced in addition to spray drift tests, quoting studies showing damage to brassica crops from mecroprop herbicide vapour 30 hours after spraying. FoE was concerned that the "environmental criteria" proposed for inclusion in the efficacy testing were not explained, especially as very little work of this kind was being done.

Despite the fact that the proposals were for enabling legislation, FoE[64] felt that the Government could have been clear on such points, for example by listing products by type of registration (wholly/ partly efficacy tested and so on), and by making registration dependent on a degree of efficacy testing. Similarly the BAA hoped that

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57 Proposals: Paragraph 6.

58 Proposals: Paragraph 3.

59 Response to Proposals, BAA, Undated 1984.

60 Response to Proposals, CA, 22/8/84.

61 Briefing Note on Proposals, RSPB, 22/10/84.

62 Response to Proposals, IEHO, 8/8/84.

63 Response to Proposals, RSNC, 8/8/84.

64 Briefing Note on Proposals, FoE, 14/9/84.

the regulations would reflect their claim that the best practical efficacy data came from experience of field use (meaning that regulations should not be too demanding on initial approval for use). The BAA also felt that efficacy "criteria" should only refer to claims made on the label (as existing legislation already required products to fulfil label claims).[65]

The RSPB suggested that the adequacy of the standards required in the test procedure should be reviewed to take into account the controls and standards operated by the EEC and the US.[66] Similarly the CA suggested that the requirements of the PSPS and ACAS (as the basis of future assessment) should be reviewed and draw on knowledge of other schemes involving notification, submission of data, and assessment for safety, for example the notification scheme for dangerous substances.[67]

With respect to the aims of environmental and user protection, there had been no mention in the proposals of a review of standards. Assuming that such a review would be taking place, the RSPB said that their views and those of the NCC should be taken into account in anticipating the long term effects of pesticide use in the environment. They suggested a two-stage approval system whereby provisional clearance would be granted pending a review of a product's efficacy and safety record over a five-year trial period.[68]

Again, which pesticides were to be tested for efficacy was not clear, and the CA wondered whether garden chemicals were to be assessed on the same basis as agricultural ones and whether this was appropriate.[69]

Martin (1984) and *The Guardian* (1984a) both noted that there was no evidence of an intention to work towards international harmonisation of standards of pesticides testing, to which the EEC and the UN were committed.

Specific Chemicals. On June 5, the TGWU reopened discussion on the safety of the herbicide 2,4,5-T in a report documenting ill health following exposure in 29 cases. Effects included breathing and circulatory problems, prolonged chloracne, miscarriages, birth defects and one case of soft tissue sarcoma (TGWU, 1984). The ACP had rejected the studies on the latter claim in its 10th Review of 2,4,5-T safety, and the Government had refused to ban it (ENDS, 1983). The report said that the use of 2,4,5-T was banned in some European countries and more that 100 British local authorities and employers were committed to using alternative weedkillers. However huge stocks remained in Britain and these were widely used in agrochemicals and weedkillers sold for garden use (*Times*, 1984). The report also mentioned that the ACP had reviewed and dismissed a similar earlier TGWU dossier (ENDS, 1981), and it was alleged that the ACP had not interviewed those involved where they said they had, and that they

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65 Response to Proposals, BAA, Undated 1984.

66 Briefing Note on Proposals, RSPB, 22/10/84.

67 Response to Proposals, CA, 22/8/84.

68 Briefing Note on Proposals, RSPB, 22/10/84.

69 Response to Proposals, CA, 22/8/84.

had been given details of cases where they said they had not.

On 13 July, FoE launched a nationwide campaign (FoE, 1984a) against the use and sale of over 170 pesticide products containing seven active ingredients (dichlorvos, dieldrin, aldrin, thiram, captan, aldicarb and 2,4,5-T) about which they believed there to be serious cause for concern. They proposed that the Government and/or manufacturers should make public the results of health, safety and environmental tests on which they were cleared for use. They pointed out that such information was presently withheld and the proposals for legislation failed to include disclosure. The campaign involved leafleting the public outside retail outlets and asking retailers to remove products until information was available.

The campaign, and the BAA response to it, was widely reported in the local and national press (I have approximately 50 examples). The BAA dismissed the accusation of secrecy as totally unsubstantiated: "Results of tests are published and companies contribute to internationally published reviews and summaries of safety data. Raw data is, however, not published because it costs on average £7.5 million to produce and a company cannot afford to give away that investment". The BAA also said that "...the agrochemical industry is committed to making even more data available to the public and is considering ways in which this can be done while protecting the commercial value of the data" (English Farmer, 1984).

In early July in the US, the Environmental Protection Agency (EPA) decided to ban most consumer uses of wood preservatives and to regulate commercial and industrial use, following suspicion that products containing creosote, pentachlorophenol and arsenic derivatives might cause cancer and birth defects. The EPA action affected 97% of the US wood preservative market and was expected to cause havoc with the DIY market, as consumers would be forced to hire certified commercial applicators. This worried UK wood-preservative manufacturers. The chairman of the Environmental Committee of the BWPA said that under the PSPS (HSE) arsenic derivatives were used in the UK only for industrial treatment, but pentachlorophenol was used by both industrial and consumer sectors and creosote was widely available. A Cuprinol spokesman said the proportion of pentachlorophenol used in UK products was around two fifths of that used in the US. A Coalite spokesman said criticism of creosote was ill-informed (*Observer*, 1984).

The BWPA commented that the US ban should have no effect on preservatives manufacture in the UK. "The fundamental difference between the USA and ourselves is that *bona fide* British preservatives must be cleared under the PSPS...the level of chemicals used in American preservatives is far higher than we would allow".

In mid-August, West Germany banned paraquat, the world's most widely used herbicide, sold in Britain as Gramoxone. In the UK paraquat was on the official poisons list and was obtainable only from chemists and licensed dealers. In the US only trained and licensed people or those under their direct supervision could use

paraquat. Three sets of data on the cancer links of paraquat were found to come from International Bio-Test Laboratory (IBT) tests of dubious quality. The other set, performed by ICI, was found to be inadequate by the EPA. Earlier in the year, West Germany had refused to renew ICI's clearance for paraquat, fearing it might not break down in the soil and might saturate sandy soil. Traces of the chemical had been found in water. ICI insisted that it was safe for use on aquatic plants but the US forbade its use for clearing ponds and waterways and in the UK treated water could not be used for irrigation within 10 days of treatment. The UK Government had no plans to take action against paraquat at that time (*New Scientist*, 1984).

The existing voluntary ban on the use of OCs for the majority of agricultural purposes was seen as an obvious case for the introduction of a statutory ban on all persistent OCs by the RSPB. An EC directive (83/131/EC) amending the earlier Prohibitions Directive (79/117/EC) to delete all remaining derogated uses of DDT and other OC and organomercury compounds would come into force in October 1984 and the Government had a clear duty to outlaw the use of the compounds covered.[70] The RSNC concentrated its comments on dieldrin. Research by themselves and the NCC had determined that the decline in otter numbers in the 1950s and 1960s was almost certainly caused by dieldrin residues which affected breeding success. There were reports that dieldin was still in use: the ITE's annual report referred to industrial (timber preservation) use, illicit use as a sheep-dip, and a belief that imports were coming in from Ireland. They proposed that all uses of dieldrin should be withdrawn.[71]

Fundamental Changes in the Approvals Process. The SA wrote that amalgamation of efficacy and safety within the same set of regulations only extended credibility to, and entrenched further, an unsatisfactory and inappropriate state of affairs, where manufacturers were the sole suppliers of evidence on safety. The force of law would be added to past inaccurate safety assessments and industry-compiled data verifying their own efficacy claims would also be accepted. They noted that reliance on manufacturers' data should be rectified as a matter of urgency, by setting up a public control agency (like the EPA) to verify manufacturers' safety data. Legislation provided the opportunity to do this and to fund the agency by introducing a sales levy. "The present structures have not provided an adequate or even an acceptable standard of protection against the hazards associated with the long-term use of pesticides on crops intended for human consumption".[72]

Information Disclosure. Nothing on information disclosure was included in the proposals. On the confidentiality of the PSPS, the BAA implied that it was not prepared to support statutory disclosure, strongly urging that "...any information provided will not be released without the consent of the person from whom it was

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70 Briefing Note on Proposals, RSPB, 22/10/84.

71 Response to Proposals, RSNC, 8/8/84.

72 Response to Proposals, SA, 24/7/84.

obtained".[73] They did confirm that "...the public's right to know the basis on which safety assessments are made by the ACP is appreciated, and we believe that more information on this would be in the public interest". They focussed on commercial confidentiality, urging that the legislation would recognise that data required for regulatory purposes cost the manufacturers many millions of pounds to produce.

The Freedom of Information Campaign (CFoI)[74] and other like-minded groups (SA, RSPB, WL, FoE and IEHO), were particularly concerned that the proposals contained nothing on the "...unacceptable degree of secrecy surrounding the hazards of pesticides cleared for uses under the PSPS". The facts that the BAA, the RCEP and Ministers at the DoE and DoEm had all recently expressed support for removing unnecessary secrecy about environmental matters in general and pesticides in particular, and that a Government response on the matter to the RCEP 10th Report was still awaited, were seen as relevant here.

Current arrangements were especially worrying since safety data released from the US had confirmed that products on sale in both the UK and US were cleared on the basis of invalid tests carried out by IBT Laboratories and others. However the ACP had released no information on the problem, or details of action to be taken, and misleading statements about the extent of the problem had been made in Parliament.

The same groups outlined practical consequences of the confidentiality policy: people exposed to pesticides were denied information about the degree to which the pesticide had been tested, the hazards that may have been found, and the adequacy of any recommended control measures; observed wildlife deaths and environmental damage could not be checked to discover if these were known effects of suspected pesticides; scientists investigating possible hazards were obstructed in their work.

Commercial interests were overstated by industry because of patent protection in major world markets. Duplication of tests by competitors was wasteful of finances and laboratory animals. When a product came off patent interested companies could pay a share of the original cost of providing registration data to obtain a clearance to market.

The repeated exposure of inadequacies in safety studies had led to the introduction of new disclosure provisions in US pesticide law, designed to improve the detection of faulty data by allowing public scrutiny of manufacturers' safety and environmental studies. Another factor in promoting the scheme was the desire to prevent manufacturers using their safety data as a way of maintaining a monopoly over their products even after the patent had expired. Following a Supreme Court ruling in June 1984, these provisions were now being implemented. CFoI, FoE and others recommended the introduction of a similar scheme, which (a) allowed disclosure to the public but not to foreign or multinational companies; (b) allowed the use of data only by the originator for 10 years; (c) allowed data in the possession of the EPA to be

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[73] Response to Proposals, BAA, 1984 Undated.

[74] Response to Proposals, CFoI, 30/7/84.

used for five subsequent years in support of a second company's registration provided the originating company was compensated; and (d) allowed second companies only to cite data known to be in the EPA files, not submit it, in support of the application.

Fees. The proposals noted that all suppliers were to pay fees to cover the cost of considering a pesticide for approval.[75] It was to be left to Ministers' discretion to decide what fees should be paid.[76] The principle of registration fees was not contested and the BAA made a point of noting its acceptance of the principle.[77] However consultation was felt necessary on the level of fees and their assessment. It was argued that excessive fees would lead to arguments that seeking approval was the sole prerogative of large companies and that fee concessions on minor uses of pesticides should be made to encourage applicants. The BAA anticipated at this stage that minor uses would be a casualty of the legislation.

6.1.4 Conditions Applied to Pesticide Use Within the Approvals Process

It was intended that[78] "Ministers will make their approval of the supply and use of a pesticide subject to the imposition on the supplier or user of such conditions as they consider necessary to ensure its safe and efficient use".

The conditions related to: the user of pesticides, in that purpose, location, method, amount and timing of use could be specified;[79] the manufacturer, in that the labelling could be specified;[80] and potentially the manufacturer, distributor and user in that containers to be used for supply, storage conditions and disposal of pesticides could be specified.[81] Additionally:[82] "As at present, conditions of use will be carried on the label which will itself require approval under the statutory arrangements unless a specific exemption is granted". As approvals were given for certain pesticides and certain manufacturers, labelling was the only condition which was integral to and attached to the approvals process, and it was on the label that manufacturers could specify areas of use.

This section focuses on manufacturer control of the label, and two limits on use which could be specified or limited within the approvals process: amounts to be used and application methods to be used. The equivalent sections in Chapters 7 and 8 will additionally deal with restrictions on the crops on which a pesticide could be used, and with tank mixes which could be used. The debate on minor uses only surfaced marginally to the issues discussed in this phase.

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75 Proposals: Paragraph 6.

76 Proposals: Paragraph 6.

77 Response to Proposals, BAA, Undated 1984.

78 Proposals: Paragraph 7(i).

79 Proposals: Paragraph 7(i).

80 Proposals: Paragraph 7(ii)

81 Proposals: Paragraph 7(iii), (iv) and (v).

82 Explanatory Notes to Proposals.

Labelling. Labelling was the condition integral to pesticide approval which affected use under the PSPS, and would continue in the statutory scheme. A major concern of the environmental groups was the fact that MAFF had not made it clear whether additional conditions would have to be put on the label. MAFF also had not indicated whether the new conditions would be substantially different from before, when manufacturers submitted their own label for approval, and did not follow instructions from MAFF emanating directly from MAFF's consideration of the data. This was seen as manufacturers being allowed to write the law, since anyone not following the instructions on the label could be prosecuted.[83] If MAFF clarified the conditions they envisaged imposing regarding the nature of the labelling to be used before granting approval, environmental groups felt that it would be easier to comment on the acceptability of the conditions.[84]

The BAA, predictably, commented that "...conditions should include mandatory compliance by users with the label recommendation for safe use. The mandatory requirements on labels should cover such matters as safe storage, disposal, timing or harvest intervals (where applicable), tank mixes and methods of application".[85] Speaking about this phase, the director of the BAA said at interview that "...we wanted to make it an offence not to follow the label - the label is the prime means of communication between the manufacturer and the user and is very important".[86] The NFU were, again predictably, opposed to this:

> "The NFU is concerned that legislation would place unnecessary restrictions on users...Information given on the label is largely what the manufacturer chooses. The PSPS clears a label but does not advise if less would be all right, for example, and the ACP does not fill in on this to an acceptable level at all. Manufacturers basically say 'please confirm x use is OK'".[87]

Application Methods and Amounts of Pesticide to be Used. The BAA[88] said that "...we would like the exceeding of recommended rates of applications by users to be made illegal, and while reduced rates can lead to reduced efficacy, and possibly encourage resistance, we would not consider reducing application rates to constitute an offence".

The proposed conditions on amounts seemed to denote that the recommendations of the manufacturer would become legally enforceable.[89] The prospect of a specified minimum allowable rate of application being enforced aroused much opposition, being seen as a mechanism for ensuring inflated sales and profits for the agrochemical

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83 Briefing Note on Proposals, FoE, 14/9/84.

84 Response to Proposals, FoE, 19/7/84.

85 Response to Proposals, BAA, Undated 1984.

86 Interview, BAA, London 12/12/85.

87 Interview, NFU, London 25/11/85.

88 Response to Proposals, BAA, Undated 1984.

89 Response to Proposals, SA, 24/7/84.

industry.[90][91] Users, it was felt, should be free to apply minimum rates of their own choosing[92][93][94] if in their opinion the pesticide was effective at lower concentrations, something which would become illegal under the proposals. The RSNC said that manufacturers should set rates which ensured that a product would do as claimed under a wide range of conditions.

On the subject of maximum rates, WL[95] and FoE[96] said that they would only be welcomed if the maximum amount was set such that the total quantity of a particular pesticide in a given area or crop would not exceed an environmentally acceptable level, set so as to reduce overall pesticide application. This should be reflected in conditions on the number of applications, in both conventional and Controlled Droplet Application (CDA) equipment.

The idea that users may not be allowed to use lower rates than specified was felt to be especially intolerable in the light of the Government's commitment to securing efficient use with regard to the environment, given that technological advances in application machinery could allow lower doses.[97][98][99] Many farmers were already using lower rates with conventional and CDA sprayers, and CDA and electrostatic sprayers not only used less chemical but also produced less spray drift. Innovation should not be stifled.[100] The NFU was also said to be seeking assurances that innovations in application methods would not be inhibited as a result (ENDS, 1984b).

The RSPB felt that the Minister should take a lead in exploring the scope for reducing overall levels of pesticide use, including research into minimal input programs, IPM, and more efficient methods of pesticide application.[101]

On the application methods themselves, the SA[102] complained that the proposals did not give consideration to the different delivery methods available, although they were vitally important in deciding on recommended doses for safety and efficacy. Existing dosage recommendations were seen as totally inadequate to prevent pollution by conventional wide-spectrum sprayers, and the introduction of recommended droplet sizes to prevent spray drift and polluting "roll-off" was recommended. Dosages quoting droplet size would encourage more efficient and environmentally cleaner spray equipment. The SA also wanted a phased ban on the use of wide-spectrum nozzles and

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90 Response to Proposals, FoE, 19/7/84.
91 Response to Proposals, RSNC, 8/8/84.
92 Response to Proposals, FoE, 19/7/84.
93 Response to Proposals, CA, 22/8/84.
94 Response to Proposals, RSNC, 8/8/84.
95 Response to Proposals, WL, 21/8/84.
96 Response to Proposals, FoE, 19/7/84.
97 Response to Proposals, SA, 24/7/84.
98 Response to Proposals, FoE, 19/7/84.
99 Response to Proposals, RSNC, 8/8/84.
100 Response to Proposals, RSNC, 8/8/84.
101 Briefing Note on Proposals, RSPB, 22/10/84.
102 Response to Proposals, SA, 24/7/84.

a requirement to use CDA equipment, but the BAA thereby wanted a requirement for suppliers and users of application machinery to ensure that the safety and efficacy of approved products was not adversely affected by application equipment (ENDS, 1984a).

In June 1984 the Soil Association published a report, widely absorbed by the Press, on pesticides spray drift from conventional hydraulic sprayers, and claimed that the smaller droplets produced did not impact on crops but remained in the air causing damage to crops, animals and humans (Thorpe and Dudley, 1984). The SA recommended the use of CDA, which enabled less pesticide to be used more target-specifically. The report claimed that CDA was being obstructed by pesticide manufacturers, who feared the new technology would reduce sales. It called for new controls over spray equipment, compulsory notification of aerial spraying, the banning of water as a carrier for spray chemicals, strict rules covering labelling and instructions on the use of chemicals and an independent body to assess pesticide quality and effects. The BAA dismissed this claim as groundless, saying that several firms were actively engaged in promoting CDA and that reduced application rates were not always achieved with the new equipment. Farmers had been disappointed with the results of CDA. Evaluation of new techniques was as necessary as assessments of safety and efficacy (ENDS, 1984a). The NAAC urged farmers, agrochemical merchants and chemical firms to go on the offensive against the "...emotive, biased, vicious and ill-informed" campaigns being mounted against the farming industry, and said that the SA report was "...simply another addition to the flood of dubious, pseudoscientific but definitely anti-chemical documents which are enforcing the farmer-bashing campaign" (*Scotsman*, 1984).

Farmers and machinery manufacturers had been worried by the proposals, believing that the Government intended to outlaw the use or development of new techniques such as CDA or the use of cleared pesticides on minor crops. On September 6 MAFF issued a press release (MAFF, 1984f) after receiving many letters on the subject, assuring farmers that this was not the case and that the Government "...was very conscious of the need to make allowances in the legislation for the development of new application techniques and new pesticide uses". They hoped the consultation process would help them establish how best this should be done.

Also, farmers had expressed concern that they would not be allowed to use lower rates than specified on the label. Mrs Fenner assured them that if the Government did decide to impose conditions on amounts, they would be in terms of maximum rates only and would have no affect of farmers who chose to go below the maximum currently recommended on the product label.

6.1.5 Conditions Applied to Pesticide Use Outside the Approvals Process

Training of Users. Training of users was not one of the main items in the Outline of Proposals, nor did it attract much comment at this stage. Training for distributors was the concern of BASIS, who wanted to perpetuate this aspect of their activities. The NFU was against specific controls on users, in fact on this basis they did not want legislation at all: "A nice compact code of practice for use is better and much more likely to be followed than 30 regulations".[103]

The issue of how practical standards denoted by the conditions were to be administered was answered mainly with respect to conditions of storage and disposal, and mainly by various calls for COPs. The IEHO however, whilst suggesting a code to cover all the conditions additionally mentioned training for operators and farm workers.[104]

6.2 Concurrent Procedural Factors

New Central Participants. The new leader of the team at MAFF Pesticides HQ (PICD), in charge of the legislation, was an expert in EEC trade laws from the Agriculture Directorate. The UK Government presumably needed advice on the acceptability of its proposals to the EC. Additional civil servants with particular experience of legislation were also appointed to senior positions in PICD. These changes disrupted relationships which had been built up with the regulators (the PRSD) and the pesticides and farming industries. At this time the director of the BAA was also changed, disrupting the relationship between the BAA and the PRSD. However the relationships between the PRSD and the companies, ACP and SSC (that is the regulators and the regulated) remained unchanged at this time. The new members of PICD would therefore have had to rely heavily on advice from established participants, especially in the PRSD.

The Timing of the Legislation. Once the decision to legislate had been announced, on 10 May 1984, the "normal procedure",[105] that is finding a parliamentary slot appeared to operate. In fact the opposite probably happened: that is finding a slot probably prompted the official announcement, which might otherwise have been delayed.

Only eight days previously, on 2 May 1984, Mrs Fenner responded to a PQ (MAFF, 1984i) about statutory control, saying that pesticides had been controlled since 1957 under the non-statutory PSPS which had served the nation well. She said its effectiveness was under continual review (*Daily Telegraph*, 1984) and that "The PSPS would be given statutory support if necessary". It seems likely that a private decision had been taken at this time but that a definite slot had not been granted.

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[103] Interview, NFU, London 25/11/85.

[104] Response to Proposals, IHEO, 8/8/84.

[105] Interview, DTI, London 11/11/87.

Some interviewees expressed the belief that the Government delayed announcing their decision until they knew they had a slot so that it would be less likely to be noticed.[106] However after the legislation was announced the *Daily Telegraph* at least (1984) seemed to think that a slot had not yet been allocated, saying that "parliamentary time will have to be found" and "it could be some time before the necessary new Bill comes into force". Regarding the pace of events, a MAFF interviewee[107] said that "all hell was let loose to get the Bill out as soon as possible". Some others expressed the view that the Government had "tried to fight a retrograde action against the move", suggesting that either Cabinet or MAFF civil servants thought that they could get away without primary legislation right to the very last minute (*Guardian*, 1984c).

The PICD civil servants would have preferred to have had more time to prepare primary legislation, but the Cabinet Committee wanted legislation as soon as possible,[108] and approached parliamentary management. A bill dealing solely with pesticides, as *de novo* legislation, would have been difficult and time consuming,[109] and was not possible in the current session, as there was already one Bill scheduled from the same Department.[110] The difficulty of negotiating with the Cabinet Office over parliamentary time for a Pesticides Bill was obviated by extending MAFF's Food and Environment portfolio Bill, which was being drafted and which already had a slot, to include pesticides.

The Food and Environment Protection Bill had already been drafted for two reasons. Firstly MAFF's Food Division had found that there were no powers to put restrictions on food in the event of a radioactive release after experiencing a minor release from Windscale,[111] and secondly the Fisheries Division (which coordinated the Bill) had found that there were no powers to control dumping or incineration at sea. These two subjects of the Bill had determined its title before the control of pesticides was added.

This course of action had other advantages. The Food and Environment Bill was important and therefore certain to get a third reading, and if an environment bill had gone through without mentioning pesticides it would have drawn attention to the fact that the UK had not met the EC's requirements.[112]

The Draft Bill. The PICD began circulating its draft Bill in Whitehall a fortnight before the previously announced consultation period was due to expire (approximately 15 July), although the draft Bill was not intended to be considered by a Cabinet

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[106] Interview, SA, London 27/2/86.

[107] Interview, MAFF(Slough), London 9/11/87.

[108] Interview, MAFF(PICD), London 13/3/86.

[109] Interview, DHSS, London 6/10/87.

[110] Interview, MAFF(PICD), London 15/1/88.

[111] Interview, MAFF(Slough), London 9/11/87.

[112] Interview, DHSS, London 6/10/87.

legislation committee until October (ENDS, 1984b). A spokesman from MAFF denied that this was a departure from standard practice (ENDS, 1984c). An explanation could have been lack of time and the fact that so many departments had to be consulted. An alternative explanation was the content of the draft Bill, which reportedly included a ban on the disclosure of pesticides safety data save on the authority of a Minister and only with the consent of manufacturers (*Guardian*, 1984d). This issue was not mentioned in the proposals. According to ENDS (1984c) the PICD was seeking to preserve the *status quo* ahead of the Government's response to February's RCEP report (RCEP, 1984) which recommended that disclosure arrangements for pesticides should be relaxed. If this were so, it would also have had the effect of avoiding protests before the Bill entered Parliament.

The argument that the draft Bill was based on an early consideration of responses to the proposals would seem unlikely given that, according to *New Scientist* (1984), MAFF had still not collated these responses by the middle of August.

The Consultation Exercise. MAFF stated that "Ministers are anxious that interested organisations should be able to contribute fully to the preparation of the legislation and I should therefore be grateful to have in writing any comments on these proposals by Monday 30th July" (MAFF, 1984l). This left only 5.5 weeks for responses.

Enabling Form of Proposed Bill. The proposed Bill was to fall into the category of enabling legislation, providing general powers for the purposes specified (MAFF, 1984h), which were to "...enable Ministers to make regulations to prohibit the import, supply or use of any pesticide unless Ministers have approved conditions for its supply and use" (MAFF, 1984b). Details of the statutory controls were to be elaborated at a later date, in the regulations to be made after the Act was passed (MAFF, 1984h). Hence any detailed thinking was obscure at this stage.

6.3 Influences on Participation and Policy Making

In the phase of regulation described in this chapter, the pressures on the Government from the EC and the UK pesticides industry were coupled with a precipitate arrival at a decision to legislate. This led to a document which featured proposals for making the approvals scheme statutory, whilst elaborating little on areas outside the existing scheme such as pesticide use. The existing approvals scheme was to be preserved. Considerable shaping had therefore taken place before the Bill was formulated. Once the decision to legislate had been turned over to the civil servants, they did however review all existing controls with the aim of including powers in the enabling legislation to cover all future necessities, although this did not mean they would necessarily develop policy with a view to implementation through regulations in these areas.

The urgent need to control pesticides supply leading to taking the first opportunity to legislate, had left little time for a detailed revision of all pesticides controls in the

primary legislation. The civil servants involved said they would have preferred much more time between taking up their new positions and having to send new legislation through Parliament. Had the pressure on the Cabinet Office not been so strong, they might have had more time to appraise aspects of pesticide control other than those associated with the supply chain, and assess the impacts on sectors other than the agrochemical industry. The personalities at PICD, with their impression of reports such as the Royal Society's on risk assessment, were probably at least as important as the portfolio and enabling traditions in covering such a wide range of issues in the legislation. (In addition, when the FEPB was enacted, they could have left the aspects of pesticide use to much later, but training was taken up as an item for investigation).

A consequence of the proposal to enshrine the existing scheme for approvals in statute was that all pesticides within the scope of the PSPS would be required to be submitted for approval, and therefore non-agricultural pesticides, a large number of which had not gone through the PSPS before would now have to be submitted for scrutiny and approval. Whilst the full ramifications for all sectors had not been explored at this stage, the importance of having the power (whether used or not) to control all pesticide supply was clear in the minds of civil servants:

> "The key is giving statutory control over distribution and sale. This is the most important achievement. For example we talked with the makers of anti-fouling paints for seven years about the possibility of their being regulated voluntarily. They knew that their paints were killing marine life. In the end they consulted their parent companies and said they wouldn't do it. In that these paints now fall under FEPA, the manufacturers *know* they have to work within a regulatory framework. And they have *no way out*".[113]

The most important objective as seen by Government and agrochemicals manufacturers was ensuring full compliance with the existing scheme and not change in the existing scheme. The civil servants had however particular wishes to control sectors which were presently troublesome. With regard to the inclusion of other sectors, this was presented as an oversight by non-agrochemical trade associations at this stage.

Another consequence of focussing on the PSPS was that in drawing up the proposals, the groups involved in the discussions were the BAA, NFU, EC, ACP, PRSD, PICD and other Government departments (that is only participants involved in or affected by the existing scheme who were opposed to any change in it). This biased the focus of debate towards the existing scheme and its preservation. PICD even turned away the *agricultural* engineers trade association from the debate at this stage, saying that the changes would not affect them. Since agricultural engineers are involved in the use of pesticides, it is clear that either central policy makers' interest in controls over pesticide use (as opposed to powers to take controls) was not high, or they did not

[113] Interview, MAFF(PICD), London 6/5/86.

wish to debate use controls at this time. The stage had been set in the proposals without wide consultation.

Non-agricultural pesticide trade associations similarly felt they had not been consulted, and that if they had been the ramifications of their inclusion could have been pointed out, and the scope of the proposals modified. If such associations had been consulted at this stage, a fuller view of the range of controls which might be necessitated would have been gained. Further, if the whole system had been examined in detail at this time (not possible because of the time allowed) it might have at least become clear *who* ought to be consulted in order to learn more. On the other hand there are indications that civil servants, whilst not realising the full range of implications, did know the range of sectors they wanted to be able to control, if it were decided later that they wanted to do so. Whilst civil servants may not have had the time to consult these interests, it was also convenient for them not to do so, so avoiding opposition when they had not yet decided which additional pesticides they wanted to control. Given the enabling nature of the legislation they knew they could exclude specific sectors or pesticides later. The BAA on the other hand wanted coverage to be as inclusive as possible, even including products to be used in conjunction with pesticides.

One ramification of wide inclusion was that existing approval requirements would be inappropriate, as they were geared to agrochemicals - another problem arising from insufficient early consideration of the range of interests affected.

Importers of non-identical imports were included in the scope of sectors having to provide data from approval. Identical imports, the handling of which was a focus of the EC complaints, were dealt with immediately during this phase, with the introduction of a rapid clearance scheme to facilitate free trade. This was undertaken outside of statute, and was to be dealt with purely administratively, using approvals data already held by the PRSD.

Since the focus was on including all pesticides in the approvals process, the adoption of a political rationality would imply that this was the appropriate stage to reappraise the existing voluntary scheme. However the existing scheme appeared not to be open to potential modification at this early point. Again this might have been a result of time considerations, compounded by relatively new central policy makers without a grasp of the range of subjects, and the added uncertainty that consideration of a range of alternatives would introduce. Therefore although some alternatives for small or more radical changes were proposed, and some doubts expressed, these could not hope to influence the content of the Bill being introduced.

The PRSD (the existing structure to implement controls) for the most part wanted to preserve their structure or have control over its change. The proposal to combine safety and efficacy testing was a result of pressure for harmonisation from the EC, and possibly from the BAA, given that it would make registration more difficult and

possibly deter some companies from marketing in the UK in the short term. The RCEP had also proposed this merger, leading the Government to declare this move to be a response to the RCEP, a commitment given during discussions on the EC's demands. This combination of safety and efficacy had the advantage of appearing to be a major change brought in with the legislation, whilst in fact the procedures already existed, and bringing together the separate structures was a minor exercise given they existed in the same building. In fact, implementation of this scheme at PRSD had taken place ahead of the proposals document, not necessarily in anticipation of UK legislation, and working documents on the data requirements were already in use. PRSD members were confident that they could re-arrange their structure in advance of the legislation with respect to incorporation of efficacy and safety and revising the evaluation document. PRSD, as established participants in regulating pesticides, were present at all stages of the legislative process, and were on the Bill team and the consultation panels for interviews on the regulations relevant to the operation of their department.

It is interesting that the only thing stated as something which definitely would be implemented (as opposed to areas in which powers to control were being taken) was something which was already being implemented. The degree of certainty was therefore extremely high before this proposal was introduced into the public debate, such that effective participation in the debate was unlikely. Later, discussions on the technical content were taken up in working groups, after the regulations had been made, again largely out of the public view. It is interesting to note that in a talk on changes in the existing scheme as a result of the legislation a senior PRSD member listed "efficacy part of approvals" under his heading "areas with greatest amount of change" (Tooby, 1986). It may have meant great change for a few agrochemicals companies, and for any other sectors who found they had to submit products for approval for the first time, but the efficacy apparatus was already in place under ACAS, and the change for PRSD was mainly in the volume of work they would now have to undertake and the concomitant increase in staff.

The PRSD role with respect to data handling was thus preserved, better defined as concerns who they could expect to seek approval, and enshrined in legislation giving them more authority. In implementing a combined scheme ahead of legislation a *fait accompli* was presented by PRSD to PICD, which made it less likely that changes would be suggested. Any attempt to suggest modifications to PICD would, in any case, be unlikely to have much impact, given their understanding of approval technicalities. As we shall see in later chapters, PICD did not in fact tackle it at all but left the technical debate to continue where it had started, back with the regulators, who evolved the content administratively after the regulations had been passed.

Although the PRSD had built up personal relationships with the manufacturers over the years, and hence might have been expected to take the manufacturer's side, this was not the case when it came to manufacturers making PRSD's own job more

difficult. Some scientific civil servants were very happy with the new arrangements for rapid clearance because they did not like manufacturers' tricks in trying to inhibit identicals clearance.

The lack of consultation meant that suggestions for basic changes in the substance of data required or for more fundamental changes in the data sources and data appraisal bodies were not considered. Technical aspects were not reexamined (except behind closed doors between companies, ACP and regulatory staff in already existing relationships). This was resented especially by non industrial sectors such as the unions and environmental groups, who had requested representation on the working groups.

The manufacturer/user conflict over the freedom to reduce the levels of pesticide applied also had its roots in the past:

> "In 1979 the BAA had an argument with [the NFU] about lower doses. They said we were in contravention of the terms of the PSPS if we applied lower than the stated doses. Had we been in a statutory position at that time the trend towards reducing doses would have been deterred".[114]

This old debate re-emerged with the imminent possibility that such measures might become irreversibly fixed by statute.

Training of users was introduced because of the "portfolio tradition" in legislation. To quote a PICD civil servant: "Training was introduced because training is infrequent and must last 20 years. The idea was to revise the whole system: from the production, distribution and storage of pesticides to the ability of the people who use them".[115] At this stage it was unclear whether the power to require training was intended to be implemented. If it were it would be a genuinely new area of control: "...we were starting more from scratch than in most other areas - if you take storage standards, the legislation was simply enshrining things which already existed...we were not specifically concerned with training before - that was a new bit".[116]

The responses to the proposals studied for this thesis contained no detailed comments on training, except one case stating that it should be considered.

6.4The Quality of Participation

The controls envisaged were not explained in detail and the substantive debate was thereby diverted. The impact of this on the quality of participation can be best expressed by the reactions of the participants themselves.

The Proposals Document. Great issue was taken by non-industry groups with the Outline of Proposals itself, which created more questions than it answered. It was felt that the proposals were vague, generalised, and did not provide adequate details of the content of the later regulations, and further that the Government's aims were not

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[114] Interview, NFU, London 25/11/85.

[115] Interview, MAFF(PICD), London 17/12/87.

[116] Interview, MAFF(PICD), London 17/12/87.

matched by the proposed content.[117][118][119][120][121] As a result it was seen as difficult to assess likely effects[122] and therefore to comment sensibly or adequately, there being no basis for discussion by interest groups or Parliament and likewise no basis for a full and responsible public debate.[123][124][125] As the basis for a consultation exercise the proposals were thus seen to have little value, and the SA were led to state that "...seeking comment on such proposals is insufficient substitute for a proper process of democratic consultation".[126] The Government was warned by Wildlife Link that as only points of principle could be made in response to such a document, it was difficult to comment, and this fact "must be borne in mind when considering our comments".[127]

Some felt that the lack of detail indicated that the regulations would only give force to the PSPS[128][129][130] and that the Government had not taken the opportunity to rethink the scope of the controls in the light of increasing use of pesticides and growing public concern about their use, and continuing evidence of their harmful effects on wildlife and the environment.[131]

As with concerns about enabling legislation it was felt that individual concerns and Government aims would not be met because they were not described in detail. The RA noted that "...such regulations are unlikely to reduce to any extent either the rate at which pesticides are applied or the risks to the public arising from their use".[132] The RSPB was worried that there was no indication about how the aim of securing efficient use of pesticides might be achieved[133] and the CA detailed items, information on which was "vital to any system of approval" (details on safety and efficacy assessment criteria; toxicological and other data which were to be submitted; how assessments were to be carried out; who was to carry out the assessments). The CA especially regretted "...that the proposals did not include information about the control system [supply and use] which must be known to the department".[134]

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117 Response to Proposals, FoE, 19/7/84.
118 Interview, AAWNTG, London 28/1/86.
119 Response to Proposals, CA, 22/8/84.
120 Response to Proposals, SA, 24/7/84.
121 Response to Proposals, WL, 21/8/84.
122 Response to Proposals, WL, 21/8/84.
123 Response to Proposals, WL, 21/8/84.
124 Response to Proposals, SA, 24/7/84.
125 Response to Proposals, FoE, 19/7/84.
126 Response to Proposals, SA, 24/7/84.
127 Response to Proposals, WL, 21/8/84.
128 Response to Proposals, WL, 21/8/84.
129 Briefing Note On Proposals, RSPB, 22/10/84.
130 Response to Proposals, RA, 30/7/84.
131 Response to Proposals, WL, 21/8/84.
132 Response to Proposals, RA, 30/7/84.
133 Briefing Note on Proposals, RSPB, 22/10/84.
134 Response to Proposals, CA, 22/8/84.

In some cases, rather than complaining about the lack of detail, organisations requested clarification and/or meetings. The BAA response especially contained many such allusions: "...the provision of information...is something about which the association would like to be consulted"; "detailed consultation would be welcomed on what is intended"; "the association would welcome consultation on these points"; "...would welcome consultation on...fees...and assessment"; "we support the conditions as detailed but would welcome clarification..."; "clarification would be welcome on the last paragraph".[135]

The demands arising from these complaints were all predictably enough for more information, that is that details should be spelt out.[136][137] Some alternatives given were that: details of how supply and use were to be controlled should be included in the primary legislation;[138] regulations should be published with the Bill;[139] and draft regulations should be published before the Bill[140] (FoE, 1984c). Some were compelled to ask for a meeting to discuss the questions raised.[141] In one case a demand for a full review of the proposals to be initiated was made, involving a full range of interest groups.[142] One warning was given, by FoE, that they would be informing the public of Parliament's responsibility to bring in detailed legislation which really did fulfil its aims.[143]

The Consultation Exercise. Two complaints arose over the "consultation" exercise, the first concerning the amount of time allocated and the second concerning opportunities for discussion. Five weeks was considered not enough time to prepare good responses by the AAWNTG, which wrote to the Ministry stating as much and did not formally respond: in order to prepare good responses, that is "scientific" responses it was necessary to consult the membership and this took time (a scientific response was necessary as it would not be disregarded so easily). "I'd like to believe that the Government was acting in haste because they will be going to town on the regulations, but this is not necessarily the case...we would have liked to have had more say".[144]

The *New Scientist* commented that "...when a Government allows only one month for comments on a piece of legislation it is not unreasonable to suppose that is has something to hide. This is certainly the case with the proposed legislation on pesticides" (Martin, 1984).

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135 Response to Proposals, BAA, Undated 1984.
136 Response to Proposals, FoE, 19/7/84.
137 Response to Proposals, CA, 22/8/84.
138 Response to Proposals, CA, 22/8/84.
139 Response to Proposals, WL, 21/8/84.
140 Response to Proposals, WL, 21/8/84.
141 Response to Proposals, CA, 22/8/84.
142 Response to Proposals, SA, 24/7/84.
143 Response to Proposals, FoE, 19/7/84.
144 Interview, AAWNTG, London 28/1/86.

As concerns opportunities for discussion, the SA complained that the Ministry had not discussed the proposals with the wide range of interested parties, for instance they personally had not been included in discussions although they represented farmers and consumers directly affected by the proposals and were ready to expand on their submission. It was claimed that the Ministry had only discussed the proposals with the industry, and that the resulting bias of advice was evident from the proposals.[145]

The demand was that a more detailed set of discussions should be the basis for a review of the proposals before the legislation was framed.

Another, perhaps related, claim, by the *Guardian* (1984a) was that the announcement was "attended" by a conspicuous lack of publicity.

Enabling Form of Bill. The proposal for an enabling bill became an issue at this stage in environmental, conservationist and developmental groups' responses. Many were convinced that the legislation would not improve the situation either in line with their own aims or those outlined by the Government. The main reaction was that the legislation should not be enabling.[146][147][148] Some groups, for example the AAWNTG,[149] even refused to respond to the proposals "because they were so inadequate".

The reasons behind the concern were as follows. FoE believed that the Government were unlikely to use it's powers, for example to revoke approvals, as it had not implemented previous enabling legislation. Also the lack of detail did not merely indicate lack of commitment, but was the more likely *because* the Government had not given a firm and specific commitment to use the powers "...without which the proposals have no more weight than the paper on which they are written", and this was evidenced by the fact that the proposals failed to place duties on the Ministry of Agriculture or its services like ADAS or on other agencies where duties are required. The statute books were littered with enabling legislation which was ignored or underutilised, for example the COPA (1974, Cap 40) which took 5 years to bring into force (FoE, 1984b).

The prohibition on pesticides damaging to wildlife had in fact never been used (MAFF, 1984j) even though it had been cited by Ministers attempting to defend the ability of the PSPS to protect the environment as recently as May that year (MAFF, 1984k). According to FoE, it was also likely that health, safety and environmental safeguards (the Government's aims) would not be introduced or enforced, evidenced by the fact that there were a number of pesticides which remained approved although grave doubts existed about safety (FoE, 1984b).

The AAWNTG were not quite so sceptical, believing that rather than not being used at all, enabling legislation would be used as a breathing space, where the Ministry

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145 Response to Proposals, SA, 24/7/84.

146 Response to Proposals, FoE, 19/7/84.

147 Response to Proposals, RSNC, 8/8/84.

148 Interview, AAWNTG, London 28/1/86.

149 Interview, AAWNTG, London 28/1/86.

would take their time to make regulations, or make the regulations mild, this being evidenced by experience of an administration which had no real intent to do anything.[150]

AAWNTG also offered the view that enabling legislation was only appropriate if one was dealing with a subject that by its nature changed quickly so that regulations could be brought in in an unusual event, and that this was not the case with pesticides. An enabling act could be used for good or evil.

The BAA's submission on enabling legislation[151] contrasted sharply: simply saying that "the concept of enabling legislation is supported by the BAA. We welcome the statement that Ministers will take powers to make regulations to prohibit the import, supply and use of any pesticide until such time as Ministers have approved conditions for their supply and use".

The main demand arising from the disenchantment felt by FoE and RSNC was that, given it was enabling legislation, a firm commitment should be made to use it.[152][153] Public support for general powers and the success of enabling legislation in making the proposed system work would depend on such a commitment. Such commitment would be deemed to have been demonstrated by producing a detailed proposal on how it was intended to treat pesticides about which doubts existed.[154] A relevant example would be revoking approvals, not just when a suitable alternative existed, but when there was concern and overwhelming evidence of a product's environmental and health safety, even where no alternative existed.[155]

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150 Interview, AAWNTG, London 28/1/86.

151 Response to Proposals, BAA, Undated 1984.

152 Response to Proposals, FoE, 19/7/84.

153 Response to Proposals, RSNC, 8/8/84.

154 Response to Proposals, FoE, 19/7/84.

155 Response to Proposals, RSNC, 8/8/84.

7. The Contemporary Debate: Parliamentary Phase

This chapter follows up the debate surrounding policy development during the passage of the Food and Environment Protection Bill (FEPB) through Parliament from 7 November 1984 to 10 July 1985. The FEPB was introduced into the House of Lords on 7 November 1984 and received its second reading on 22 November. Dates relating to its subsequent passage through Parliament form the detailed time framework for this chapter and these are given in Figure 7.1. Other important dates relate to formal documents presented to Parliament by MAFF. The "Notes on Clauses" were produced in December (MAFF, 1984m); the "Statement of Intent" about the same time (MAFF, 1984n); and the "Heads of Proposals for Regulations" (MAFF, 1985b) and a revised "Statement of Intent" (MAFF, 1985c) in March 1985. The Food And Environment Protection Act (1985; Cap 48) was published on 16 July 1985.

During this phase, it is assumed that policy shaping is largely controlled by the Government and the executive (ensured by the parliamentary majority of the Conservative Party) so that they continue to be "central" policy makers.

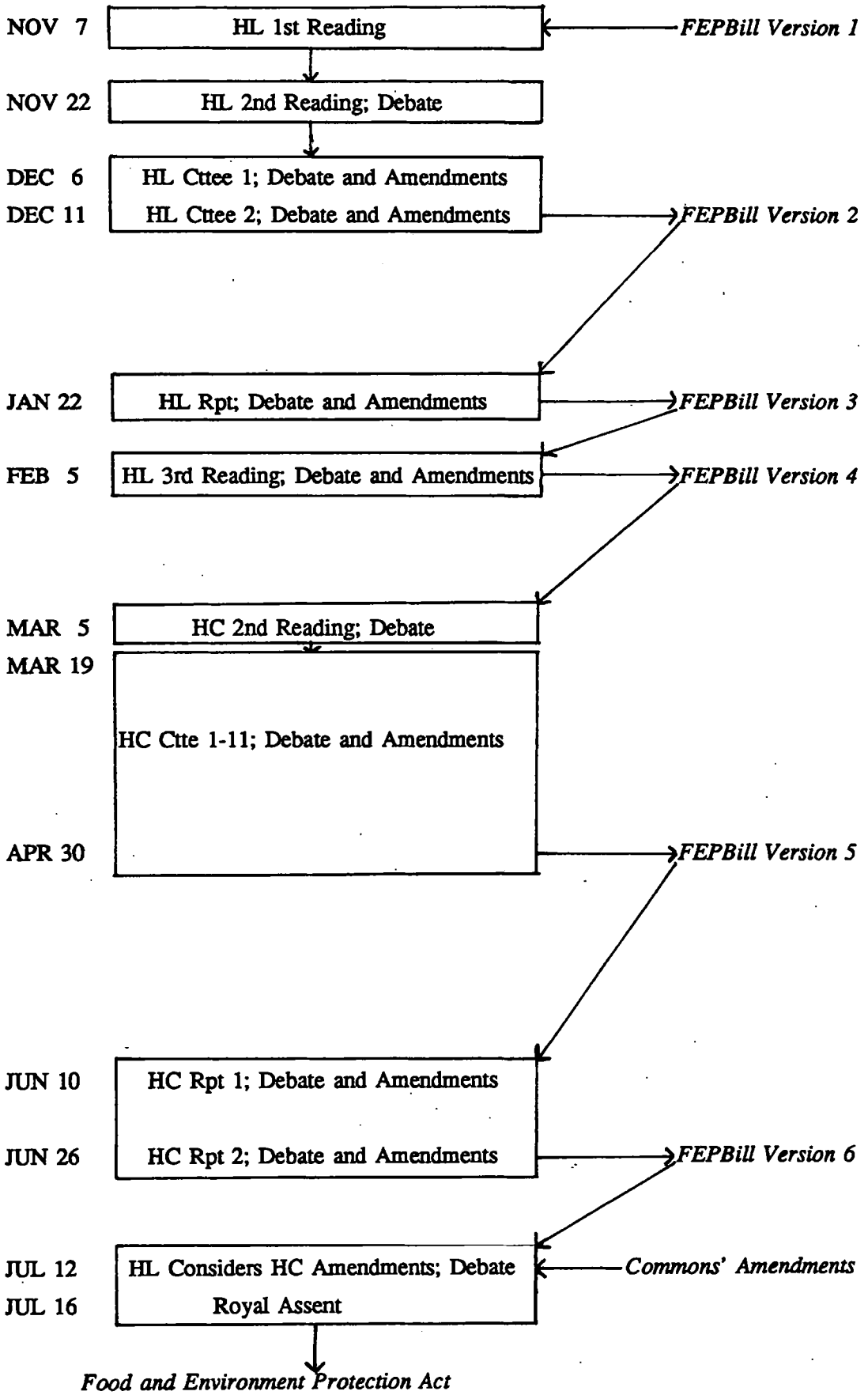
The first reading of a bill is simply the formal tabling (HL, 1984a). In second reading no alterations are possible, and the Government majority ensures that it is passed. In this case at the same time as second reading in the Commons, a money resolution was passed, allocating resources to the legislation (HC, 1985b). The committee stage in the Commons (in this case Standing Committee H, held over eight one-hour sessions), is the main parliamentary stage where details are discussed and amendments are laid. At this stage, opposition and back-bench MPs moved amendments of a fairly technical nature. At report stage the Bill is taken back to the floor of the House, where discussion is again Government dominated. Fewer opposition amendments are selected than in committee. Most amendments are Government drafting amendments. The Government can also move amendments as a result of undertakings given in committee. After the Bill had passed through both houses, it was returned to the Lords, for a consideration of the Commons' amendments (HL, 1985c).

7.1 Debate and Decision in Substantive Policy Development

7.1.1 Broad Policy Objectives

The Government's Bill did not state objectives. However the controls envisaged by Government at the beginning of the parliamentary phase (second reading) (HL, 1984b) were enumerated by Lord Belstead (C; Minister of State, MAFF), for the Government, as falling into three areas, in addition to the immediate action taken to set up the rapid clearance scheme. He stated that controls taken in the Bill would: (a) ensure that all pesticides intended for use in the UK were submitted for scrutiny before marketing and

Figure 7.1: Parliamentary Phase Chronology (1984 - 1985)



impose conditions on these pesticides *before approval* (evidence of efficacy would be a new requirement in this area); (b) extend pesticide controls to the field of use; and (c) enable MRLs to be set in food crops and animal feedingstuffs. They would also "review the whole scope of pesticide controls". On pesticide use, the debate prompted by the RCEP had led the Government to a commitment to ensure that UK pesticide use was "...the minimum necessary to ensure the efficient production and distribution of food and to safeguard human health", by seeking to reconcile the use of pesticides to maintain high productivity with the protection of the environment from the risks arising from their use.

The idea of "use" was seen at this stage as a catch-all for every aspect other than "making the voluntary scheme statutory". Controls on use were considered separate from the approvals scheme, the concern being to cover use by taking appropriate powers. This may in part have been a reflection of the PICD division of responsibilities at this time: the "up to approval" branch and the "after approval" branch. The concept covered conditions set on use *at* registration, and possible conditions on the user *after* registration, and residues in foods. The control of residues was not necessarily seen as integral to controls on use, and was couched in terms of "the environment" or "reducing pesticide use", or as a monitor of policy, and was rather at this stage simply conforming to the requirements of the EC.

Controlling the "environmental effects" of pesticides was assumed to be manageable within the approvals process in terms of the data requirements and conditions applied to particular pesticides. Efficacy testing was assumed to equate to reducing use and thus also to reducing effects on the environment. Neither of these things would have any impact on the fundamental requirements of the approvals process.

A special case was made in Parliament that there were neither general nor specific objectives stated in the Bill: it was "...a bit vague to say 'go forth and govern New South Wales' - you ought to be told vaguely how to do it" (Earl Onslow; C; farmer). Various alternatives for a statement of objectives were laid down in debate and amendments. It was felt that the object of a bill, especially an enabling one, should be clearly stated in a preamble, and that such would give guidance in debates and to civil servants. It was important to state principles because of the wide public interest (Lord Mackie; C; farmer). There was a principle involved: Parliament could not allow a bill to become law without a statement of objectives (Lord Melchett; C). Objectives should strike a fine balance between the environment and practical farming and should guide the aims of farmers and manufacturers to be efficient and target-specific (Lord Stodart; C; farmer).

In second reading (HL, 1984b) Lord Walston (SD; farmer) proposed that the existing objectives of the voluntary PSPS could provide the substance of the Bill's objectives:

"To safeguard human beings (whether as operators applying products, as food consumers or otherwise), livestock, domestic animals, beneficial insects, wildlife (that is non-target flora and fauna) and the environment generally (for example soil, air and water) against risks which could arise from the use of pesticide products".

Lord Belstead (for the Government) gave an assurance that general powers would enable all of these things.

Lord Mackie then moved an objectives amendment as a Clause 15 preamble in committee (HL, 1984c), based on the PSPS,[1] quoting precedents in the Food Act (1984; Cap 30) and the Consumer Safety Act (1978; Cap 38), where principles on which to base regulations were clearly stated. The Government agreed in principle, because the proposal was based on the PSPS.

Lord Melchett thought such guidance not specific enough, and on the second committee day (HL, 1984d) moved a more detailed objectives clause,[2] designed to probe the Government's intentions. The Government reiterated that they would prefer a brief and pointed statement based on the PSPS if they were to have a statement of objectives, and at report stage (HL, 1985a), they brought in a preamble on objectives[3] which "...said in a few lines all that needed to be said about the general purposes of this part of the Bill". It was a pointer to what the regulations would aim to achieve, and was clear, crisp and comprehensive, although it was not a *programme* for pesticides. He had borne in mind that regulations should be drawn as widely as possible to prevent evasion by those adversely affected.

At second reading in the House of Commons (HC, 1985a), Mr Davies (L) introduced a range of objectives he believed should direct thinking on detail. The principle that the countryside should be a safe place at the same time as expecting it to produce our food had not been advanced or safeguarded in the Bill. Another principle should be protecting our heritage for the future. A third principle was that there should be an informed public if there was to be public debate where choices could be made. People should be made aware of the details concerning the effects of the pesticides to be used. Fourthly, they should be aware of the trading relationship between them and

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1 Clause 15(1) The Ministers may jointly by Regulation *in order to safeguard human beings (whether as operators applying products, as food consumers or otherwise), livestock, domestic animals, beneficial insects, wildlife (i.e. non-target flora and fauna) and the environment generally (e.g. soil, air and water) against risks which could arise from the use of pesticide products*: [(a)-(h)]. And in this Part Of This Act "Regulations" means regulations under this section.

2 *Cl.16 Objectives. In drawing up regulations to ensure the safe and effective use of pesticides under this Act, Ministers shall ensure (i) the progressive reduction of pesticide pollution of all kinds; (ii) the conservation of flora, fauna and semi-natural ecosystems; (iii) the health and safety of consumers, and people living and working in or visiting town or country; (iv) the health and safety of livestock and domestic animals; (v) the health and integrity of the soil ecosystem and its flora and fauna; (vi) the elimination of practices leading to excess use and over use; (vii) the elimination of practices leading to increased pest resistance, with or between species of pest; (viii) the progressive reduction in pesticide use; (ix) the availability of an adequate number of appropriate pesticides for agricultural and other use; and (x) the furtherance of alternative methods of controlling pests, other than through the use of chemical agents.*

3 *The provisions of this Part of this Act shall have effect with a view to protecting the health of human beings, creatures and plants, safeguarding the environment and securing the safe, efficient and humane use of pesticides.* Cl.15 The Ministers may jointly by Regulations...

the third world, and the effects of technology on developing practices in the third world. The Bill fell short there too. Mr Davies said that when legislating they must be aware of the overall impact of Government policy on the scale of pesticide use. If there were dangers and discrepancies in the way in which their declared policies were operated, the Government must be prepared to build safeguards into the legislation.

In committee in the House of Commons (HC, 1985c) two amendments were submitted and agreed, which added to the basic statement of objectives. The first, on the continuous development of means of pest control, represented a Government defeat, and allowed the ACP to take the initiative in advising the Government rather than waiting for issues to be referred to them. It was introduced as a substitution by Mr Farr (C; farmer).[4] The second was a Government amendment which made the provision of information one of the four main objectives of Part III.[5] The debates centering on these two amendments are taken up in the following sections.

7.1.2 Products Subject to Approval and the Case of Identical Imports

Products Subject to Approval. One amendment and one addition were made in the Bill over and above the aims set out in the Outline of Proposals. First, the Bill encompassed all pesticide products, rather than the more limited range included in the proposals. Products such as paints and varnishes containing pesticides, and marine anti-fouling paints, now fell within its scope, apparently because "...the Government decided that it would be wrong to miss this rare opportunity to provide powers to regulate products which, while they might not be top of the control agenda at present, may in future pose problems during use" (ENDS, 1984d).

Again, non-agricultural associations who had been included in the scope of the Bill without due thought were indignant. The BPCA approached certain Lords, and "...not a single one realised that *our* side of the industry was equally involved. No-one even mentioned it. We talked to Belstead. The people who drafted the Bill did it 95% with farming in mind".[6] The AEA wanted to make up for lost time: "Our priority was to make sure there was reasonable recognition of our interest because of having previously been told it was none of our business".[7] The CA was worried that there was a lack of lobbying on behalf of gardeners: "The Government didn't take on board that the legislation affects gardeners. This was a gap in this legislation. MAFF is not particularly interested in the consumer side".[8]

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4 The Provisions of this Part of this Act shall have effect (a) with a view to *the continuous development of means* (i) to protect the health of human beings, creatures and plants; (ii) to safeguard the environment; and (iii) to secure safe, efficient and humane *methods of controlling pests.*

5 (a) With a view to the continuous development of means [(i-iii)] *and (b) with a view to making information about pesticides available to the public.*

6 Interview, BPCA, London 17/2/86.

7 Interview, AEA, London 10/2/86.

8 Interview, CA, London 27/2/86.

Identical Imports. An immediate decision had been taken to establish a rapid clearance scheme for identical imports in response to one of the main pressures for legislation. Arrangements for all suppliers to seek approval prior to marketing related to the objective of complying with the EC requirements on trade restrictions and the resulting need to satisfy the BAA by regaining control, especially over imports. These key objectives as reasons for legislating were cast by the Government in wider terms: "The proposed controls over pesticides are again inspired by the search for safer standards of environmental protection". The PSPS had come under pressure from:

> "...the import of uncleared pesticides and from criticisms by the European Commission about its trade implications. It was these pressures which first led us to decide that we should come to Parliament with statutory controls concerning pesticides...all pesticides intended for use in the UK will be required by law to be submitted for scrutiny before being marketed...the scheme's dependence on a restrictive agreement between manufacturers and suppliers - that they could handle only products cleared under the PSPS - created a conflict of loyalty for suppliers. They were faced on the one side with that agreement and on the other with the possibility of supplying customers with products from overseas, which are sometimes cheaper. This situation was not really tenable" (Lord Belstead; HL, 1984b).

The Government did not aim to impinge adversely on the industries concerned: "I would emphasize that the Bill is not designed to restrain trade. A basically free market system can work best within a fair regulatory framework. This Bill is intended to set higher standards for protection of food and the environment without obstructing the industries concerned" (Lord Belstead; HL, 1984b).

At second reading in the Lords (HL, 1984b) Lord Walston wanted an assurance that farmers, as members of the Community, could still import identical products, providing they were clearly designated and conformed to any requirements the UK laid down. Lord Stodart added that otherwise British farmers would be at a competitive disadvantage in the production of food. He hoped rapid clearance would apply to importing farmers. Lord Stanley (farmer) said "I cannot exist if one, or indeed both of my hands are tied behind my back by restrictive national legislation". Lord Mackie said all imports should meet the same standards of safety and labelling as in the UK.

The Government stressed that access to cheap, safe and efficient pesticides would not be denied, and that the EC would not allow it. They intended "...to introduce administratively, on 1st January of next year, a rapid clearance scheme free of any fees for imported pesticides provided that they are identical to products already cleared for use here". In the first day of Lords committee (HL, 1984c) Lord Craigton (C) moved an amendment, echoing the BAA's response to the proposals, seeking to insert "exposure for sale" into the prohibitions[9] to prevent the advertisement of cheap uncleared imported pesticides. The amendment was withdrawn on the Government's

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[9] 15(1)(a)The Ministers may jointly by regulations prohibit the importation, sale, *exposure for sale*, supply or use of pesticides but exclude from the prohibitions pesticides of a description specified in the regulations.

assurance that "sale" probably covered it. Lord Craigton also wanted to know what would happen to imported pesticides whose labels were not in English. At Lords third reading (HL, 1985b) Lord Belstead came back with an amendment which inserted both "exposure for sale" and "possession for the purpose of sale"in the Bill.

In the second Lords committee day (HL, 1984d) Lord Stanley moved an amendment to ensure rapid clearance for imports.[10] Without this amendment, British farmers would be disadvantaged compared to their European counterparts. The Government's promise to introduce a rapid clearance scheme for imports needed to be in the legislation. Lord Belstead, for the Government, restated the intention to have a rapid clearance scheme for imports, and to provide for genuine competition for identical products.

Lord Melchett wanted imports to be safe, and therefore wanted to know how they could be known to be identical. Lord Belstead said that the arrangements would be as straightforward as possible. After discussions with the commission, MAFF had agreed that for the purpose of rapid clearance, identicalness of a product would be satisfied when the active ingredients were the same and both were produced by the same company, either in this country or abroad. Formulations should be tolerably the same. The procedure would essentially be a paper exercise: to demonstrate identicalness of two products the importer would have to provide a copy of the label of the import and its batch number, details of the product cleared in this country, and a copy of the label instructions in English to be attached to the imported product. Later a reasonable fee on farmers' imports would be charged. The seven days limit would be achievable largely, but not in all cases. The Government would, however, see that it was kept to a matter of days. The BAA and the NFU had agreed to the procedures.

Lord Stanley asked what would happen to products which were identical but not from the same company. It was anomalous that while even tolerably different formulations would be cleared if they were from the same company, products which were more identical but from different companies would not. At Lords report (HL, 1985a) he tabled an amendment which would give rapid clearance to all similar chemicals whether or not they were manufactured by the same company.[11] The mere fact that the Government had introduced statutory regulations for agrochemicals would automatically make it easier to prevent, obstruct or make it more difficult for farmers importing similar chemicals. He therefore thought the Government should correct this

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[10] 15(1)...and in this Part of this Act "regulations" means regulations under this section.
( )In exercising their powers under subsection (1) above the Ministers shall make such arrangements as may be appropriate to ensure that all applications for the use of safe pesticides imported to the United Kingdom are cleared within seven working days of receipt, free of charge to the applicant.
(2) Pesticides may be identified in any way...

[11] 15(1)...and in this Part of this Act, "regulations" means regulations under this section.
( )In exercising their powers under subsection (1) above, the Ministers shall make such arrangements as may be appropriate to ensure the rapid clearance of all applications for approval for the use of safe pesticides similar to those previously approved in accordance with regulations made under this section.
(2)Pesticides may be identified in any way...

by accepting the more positive words of the amendment to encourage and not restrict competitive imports.

Lord Belstead said that his definition of "identical" would ensure no material differences with respect to safety. However although "similar" products' active ingredients could be the same, formulation differences could have a significant affect on the product's safety. Such products could not therefore be cleared by the simple method for identical products. Lord Stanley felt that this would allow an unscrupulous manufacturer to keep out even "identical" imports made by his company. The amendment was withdrawn.

At second reading in the Commons (HC, 1985a) there was again pro-farming support for the easiest means of access to cheap imported pesticides. There were also concerns about the safety of non-identical formulations, especially from the Third World, and concerns about non-English label instructions.

In Commons committee (HC, 1985c) there was more concern about English labels and safety, and Ministerial assurances that all merchants and farmers importing pesticides would have to produce English labels under the rapid clearance scheme. Previously, if importers' employees used non-English labelled pesticides they would have been contravening the HSWA 1974. In answer to a question on stockpiled imports, the Minister said it would not be illegal to use these up.

7.1.3 Conditions Applied to Pesticides in the Approvals Process

Lord Belstead said in his introductory speech:

> "This clause would allow us to impose conditions before pesticides are approved under a statutory scheme. Many of these conditions will be familiar to those who operate within the existing schemes, but for the first time we shall be demanding of all products evidence not simply of safety but of efficacy as well. Under the conditions of approval we intend to ensure that no pesticide will be released onto the UK market unless it is demonstrably beneficial to agriculture, horticulture or human health" (Lord Belstead; HL, 1984b).

The Substance of the Tests: Types, Criteria, Standards and Harmonisation. In Lords committee day two (HL, 1984d), Lord Northbourne (Indep) moved an amendment to ensure that the parameters of the tests were laid down by Ministers and not left to the manufacturers.[12] He said the PSPS often cleared for safety only those recommendations the manufacturer chose to specify. This meant that the pesticide might not be thoroughly and adequately tested.

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12 15(5)(b)...of any of its international obligations.
(5A)In deciding whether or not to grant exclusions of approval under section 15(1) of this Act the Minister shall have regard to tests of a type to be specified in the regulations designed to assess (i) the effectiveness of the pesticide for which exclusion or approval is being sought; (ii) effective application rates and methods of application in relation to a range of soil and climate conditions; (iii) the effect of the pesticide upon the environment including man, animals, plants and soil ecosystems; and (iv) the economic or other justifications for the use of the pesticide by comparison with other pesticides available for the same purpose which may involve less risk to the environment.
(6)A person who...

Lord Belstead replied that under the regulations a document would be published setting out the type and standard of tests. The document would be continually updated to take advantage of scientific developments. To enshrine the tests in regulations could impede that process. It was not possible to establish a definitive list of tests for all pesticides. Lord Melchett wanted to know the status of the guidance in the document on tests. Lord Belstead said that if applicants had not complied with guidance, their chances of getting a clearance would be lower. The amendment was withdrawn.

When interviewed, the SSC expressed concern that FEPA should not "...preclude the kind of benefits which exist in our system, for example we can *talk* to Harpenden. We thought specificity was very dangerous". This was because:

> "(1) If next year we made a new discovery, we want to feel free to ask for extra information; (2) A company can ask 'do we need to do all the studies?' - it may well be that they don't, for example insect growth hormone mimics are long-chain fatty acids and if it gets into you or me it is in two carbon fragments before it even gets near a foetus, so there would be no need to do teratology studies; and (3) if a scheme is prescriptive, it would result in killing a large number of animals".[13]

The ACP similarly wanted to avoid specificity in data requirements, citing medical legislation under the Medicines Commission: "...clinical trials became so slow that enabling legislation to allow clinical trial exemption certificates had to be produced. This confirmed to many of us that legislation was not very good".[14] The ex-head of the PRSD said that in any case the PSPS was continuously improving, asking for new techniques to be used and gaining new knowledge, but that a plateau situation had been reached where "...some believe we have gone too far asking for information that we cannot use [because of] difficulties of extrapolation with large differences between species. Enthusiasts of toxicology have run away with themselves...The new skills are not now in measuring things, but in interpretation".[15]

Cleared Pesticides Deemed Approved. Lord Melchett, at second reading in the House of Lords (HL, 1984b) said that there were 6-700 products in the existing efficacy scheme, but 3000 under the PSPS, so that the proposal to simply give efficacy approval to PSPS-cleared products constituted a massive reduction in controls as efficacy testing would only be carried out on a few products. Lord Belstead gave an assurance that the Government's intention was to cover all products. However to cover all existing cleared pesticides in respect of efficacy was impracticable, so there would have to be a transitional period. All new applications would be screened for efficacy, but existing products would be screened for efficacy only when they came up for review.

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[13] Interview, SSC, London 30/11/87.

[14] Interview, ACP, Leicester 18/1/88.

[15] Interview, MAFF (PRSD), Westoning 11/1/88.

In the Lords second committee day (HL, 1984d), Earl Peel (C; Farmer) moved an amendment which would require the 3,600 existing products not screened for efficacy to be tested within two years.[16] He said that this way farmers would get more knowledge about the efficacy of different chemicals and that this may lead them to use less chemicals. It was accepted that all products could not be efficacy tested immediately, but some time limit was desirable. Lord Melchett noted that the farming press and the BAA had reported there would be a five year period.

Lord Belstead replied that there was a problem with requiring applicants to demonstrate efficacy, and that was that they had to decide exactly what data could be regarded as being sufficient evidence of efficacy. This was an even greater problem with non-agricultural products, and each class of product would have to have a different class of efficacy test.

The problem with timing was that to clear 34 products per week as the amendment implied would amount to rubber-stamping old products and would simply be a paper exercise, whereas the intention was to embark on a deliberate and painstaking application of the new rules. The Government was thinking of a five year period so far as reviews were concerned. It would be subject to consultation whether the five years would become a regulation. Priority would be given to the most toxic products. The amendment was withdrawn.

Specific Chemicals. On 5 June 1985 (World Environment Day) a campaign to stop the manufacture, sale, use or trade in 12 common pesticides was launched by FoE, OXFAM and the TGWU on behalf of the Pesticides Action Network (PAN), called the "Dirty Dozen Campaign". The pesticides were selected because of their actual or suspected carcinogenicity, teratogenicity or acute toxicity, and because of their involvement in poisoning incidents in the Third World. Eight of the pesticides were still cleared for agricultural, horticultural or garden use in the UK.[17] In anticipation of the launch, the BAA did a survey of exports of pesticides in the banned or severely restricted category in the UK. Companies had told the BAA these pesticides amounted to 0.27% of total overseas sales, and this "...gave the lie to much of what is said about the industry's attitude to the Third World" (ENDS, 1985a).

At second reading in the House of Lords (HL, 1984b) Lord Auckland (C) complained that there was no schedule of substances which would be tested or banned as a result of the Act, whereas previous legislation of this nature had included such.

Information Disclosure. In November 1984 it was announced by CFoI that they intended to introduce an Environmental Pollution Information Bill during the current

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16 15(1)...and in this Part of this Act "regulations" means regulations under this section.
(1A)Regulations shall include a provision that all pesticides which at the date of the passing of this Act have not been approved under the Agricultural Chemicals Approval Scheme (or any modification thereof) shall be submitted for such approval within two years of the date of the passing of this Act.
(2)Pesticides may be identified in any way...

17 2,4,5-T; DDT; Camphechlor; Chlordane; Chlordimefrom; Ethylene dibromide; DBCP; Aldrin; Dieldrin; Endrin; Lindane; Ethyl parathion; Paraquat; and Pentachlorophenol.

parliamentary session, using either the private member's bill or 10-minute rule procedures. This was intended to implement the RCEP's recommendation on information disclosure contained in its 10th report. (ENDS, 1984e).

At report stage in the House of Lords (HL, 1985a) the Government tabled amendments empowering the disclosure of safety data to the public and the demanding of information from manufacturers in connection with international controls on pesticide exports as well as approvals, having "regard to the interests of persons supplying the information" when drawing up the regulations. With respect to disclosure, "there will be some data, particularly on processes and formulation, which will be of little public interest in the safety field but which will be of great value as trade secrets". These would be excluded. In addition "the safety data themselves have commercial value as in some cases they represent many years' research by the originating company". Some peers said they would look for a further amendment obliging Ministers to look to the public interest as well as that of the manufacturer when drafting the regulations. Another successful Government amendment gave statutory backing to the ACP and enabled the regulation of pesticides in storage.

During debates in Commons committee on 25 and 30 April, Labour MPs sought an amendment (drafted by CFoI) to oblige the Government to disclose the full studies on the health and environmental effects of pesticides which are submitted for the purposes of product approval. Manufacturers' interests would be safeguarded by a ban on the use of these studies by competitors except with the originating companies' approval. This challenged the Government to go beyond its current intention to disclose only summaries. The Government was again reminded of its agreement with the RCEP that there should be a "presumption in favour of unrestricted access to environmental information", and that it seemed to be placing the manufacturers interests above those of the public. Mrs Fenner (C; MAFF Parliamentary Secretary), for the Government, promised to think again about this balance between commercial and public interest. More than summaries might be possible she said, and although the Government was not prepared to put in as many resources as were required to operate the US disclosure system, this did "...not rule out the possibility of our making arrangements similar to those of the United States".

An amendment which made the provision of information to the public one of the four main purposes of Part III of the Bill was tabled by the Government on the second report day.[18] In addition to disclosing summaries of pesticide safety data scrutinised by the ACP, the Government was considering arrangements which would allow researchers access to the raw data submitted by manufacturers for product approval purposes "if a scientific case can be established". The amendment was apparently introduced as a result of careful reflection on the debate in Committee (HC, 1985e).

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[18] (a) With a view to the continuous development of means [(i-iii)] *and (b) with a view to making information about pesticides available to the public.*

Mrs Fenner said the Government had believed they had already struck the right balance between the public interest in access to information and the protection of the commercial interests of those who supplied the information in the Bill:[19]

> "...but the feeling in Committee was that more could be done in the Bill to favour the public interest as the Royal Commission recommended. The Government has reflected carefully and in response have tabled the amendment on the general purposes of this part of the Bill. If accepted, the amendment would... apply to safety data about chemicals and to other information and to information about the control exercised over pesticides in the Bill. I believe that this addition to Clause 15 further strengthens the presumption in favour of public access. We cannot adopt the Royal Commission's use of the term 'unrestricted access' in a legal statute because that would nullify the effect of subsection (5), which protects the legitimate interests of manufacturers...We are moving public information into the highest category of purpose of the Bill. However we are maintaining the balance between the public interest and the respect for commercial interests in the body of Clause 15. That seems to us to be a significant improvement...We believe that the public's access to information should have a high priority and should be an integral part of these provisions. By moving the relevant provisions to the first part of Part III we have highlighted the emphasis that we attach to the principle".

The amendment was agreed to with no vote.

Fees. At the third reading in the Commons (HC, 1985f) the Government introduced an amendment extending the power to recover "reasonable fees", to include the collection and processing of information on pesticide use, and the monitoring of the environmental effects of pesticide usage, as well as the administrative costs of processing applications. Questioned about these provisions in the Lords, the Government spokesman said that the fees would bring in £1-2 million per year, mostly from manufacturers, but some from merchants, importers and farmers seeking approval for new uses of existing pesticides. Meanwhile anyone seeking pesticide safety data from MAFF would be charged the costs of producing the documents.

7.1.4 Conditions Applied to Pesticide Use Within the Approvals Process

The Bill. In introducing the Bill Lord Belstead had said that:

> "This clause would also extend pesticide controls to the field of use - and this is a major change. At present safety often depends on the user adhering to the recommended conditions of use on the label, and the record of pesticides in human safety demonstrates the care with which the great majority follow the recommendations. We are, however, faced with an increasing range of concerns, from water and wildlife interests to residue levels at the point of consumption of food; and increasing range of pesticide types; and increasing range of systems of application; and, very likely, an increasing degree of competition for markets. Under these circumstances it does not seem feasible to control the environmental effects of pesticides at the approval stage alone, and that is why it is intended that the new scheme will exert statutory controls

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[19] (2)(j) "provide for the availability to the public, subject to any conditions that the Ministers consider appropriate, of information supplied for the purposes of this section".
(5) "In determining any provision to be made by virtue of subsection (2)(j) above the Ministers shall have regard to the interests of persons supplying the information to which that provision would relate".

over use...It is not our intention to create a straitjacket for the farming industry, and I am confident that we can develop ground rules for the application of pesticides which are sufficiently strict for the risk involved but permit the development and use of new and more effective pesticides and application systems" (Lord Belstead; HL, 1984b).

Amounts, Application Methods and Tank Mixes to be Used. In Lords second reading (HL, 1984b) Lord Walston noted the development of electrostatic spraying which reduced the quantity of pesticide spray used and targetted it more effectively. He wanted an assurance that nothing would inhibit the use of such new equipment. Lord Stanley agreed that progress should continue and that farmers were ahead of research in CDA. Lord Craigton thought application devices should be controlled and specified, and that equipment should be able to be seized. Lord Melchett thought there should be licensing for application systems: machinery should be checked to see that it was applying pesticides properly. He hoped that application systems would be cleared rapidly. Baroness Nicol (L) also said there should be control of the type of equipment used, and encouragement for better methods and machinery, with time limits on obsolete equipment.

In Lords committee day one (HL, 1984c) Lord Northbourne tried to introduce amendments which controlled "the method of application and delivery devices".[20] Earl Onslow said that the BAA supported controls on machinery and quoted their letter, saying "...we support the extension of controls to the use of agrochemicals, including the means of application". Lord Craigton noted that the Notes on Clauses said label conditions could encompass "all appropriate application methods which are in common use" and thought that control of application machinery should not be left to the label but should become part of the pesticide approval process, that is the Government should decide. Lord Melchett thought that the Government should take responsibility for application machinery and that the regulation should include details of the nozzle angle, nozzle capacity, pressure and flow rates on which research had been done by BCPC, all of which would improve performance. The BCPC scheme was a practical example of an existing scheme that the Government could build on. The last thing they wanted to do was inhibit CDA. Lord Stanley and Baroness Carnegy feared the amendments might restrict the invention of new machines; and recognised that the problem was that a chemical used in conventional machines would need different regulations to those used in CDA.

Lord Belstead said that having to license and approve individual machines would cause difficulties because in deciding safety there were many other factors to take into account:

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[20] 15(1)...and in this Part of this Act, "regulations" means regulations under this section.
( )In framing regulations under Part III of this Act the Minister shall have regard to the need to limit the application of pesticides to target crops or animals and to avoid contact with other crops, wild plants and animals and shall frame the regulations to control methods of application and delivery devices accordingly.
(2)Pesticides may be identified in any way...

> "...we believe it is right to ensure pesticides are only applied through machines which are appropriate and safe for the purpose...we believe the way of controlling the correct operation of machines should be through imposing those statutory responsibilities on the user, and by backing them up with education, advice, and in the final instance enforcement".

The HSE would enforce the provisions by serving prohibition notices on anyone using pesticides in such a way as to create a hazard - including incorrect use of a machine, so that use could not continue if the machine remained in that condition or if the user did not take instruction on correct use.

Lord Melchett pointed out that a farmer could be advised by a machinery manufacturer that a piece of application equipment was for use with a particular pesticide, but if he got it wrong it would be the farmer who would end up in the dock. He felt that the regulations should bite on the machinery manufacturer and say what sort of machinery should be produced. The concentration of chemicals and so on would be covered by regulations anyway, but they were left with deciding whether the machinery manufacturer or the farmer should bear the onus to make sure the equipment was appropriate. There should be a COP for machinery manufacturers. Lord Craigton again noted that the Government should decide on the application machinery and not leave it to either machinery manufacturers or farmers. The RCEP had said there should be an obligation to use the correct delivery device and it was the Government's job to take this on. Lord Belstead said that to regulate machinery they would look at each chemical and consider the *likely* machinery with which it would be applied and that they would not be bound by the requests of manufacturers in this. Each chemical would be approved in relation to appropriate application methods and outlawed for other application methods. He said he would look into the BCPC scheme.

In the second day of Lords committee (HL, 1984d) an amendment which would allow seizure of machinery if it was unsuitable or being used in unsuitable combination with a pesticide was laid by Lord Craigton. Lord Belstead thought that the first part was heavy-handed as there might be a variety of reasons besides the machinery for sub-standard spraying. On the machine-pesticide combination he said:

> "...it is very firmly the Government's opinion that in order to ensure the safe use of pesticides, machines must be matched to pesticides, and users instructed as to what machine to use and how to use it...we intend to look at each chemical and approve each in relation to safe application methods only".

This would include the machine type, the adjustment and the use of the machine. Lord Stodart feared that farmers would need different machines for each pesticide. Lord Craigton withdrew the amendment saying that the pesticide and the sprayer used were one and the same thing in respect of instructions of the Ministry about crop protection. If there was a fault in one there could equally be a fault in the other.

Lord Craigton moved another amendment to hold the Government to its 6th December promise to "consider the likely machinery by which a product will be applied" - such consideration was impossible without an amendment to provide for the inspection of pesticide application and delivery devices. Lord Belstead agreed with his own objective, but not with the *means* of achieving it. An inspection system would be impracticable, and would amount to an MoT system for sprayers involving vast numbers of officers who would be better employed making sure farmers *used* the machinery already in their possession with the appropriate chemicals. Lord Craigton said the Government were missing the opportunity to follow the RCEP who said you could get the same value from a fifth of the spray with the right sprayer. The RCEP said that there was not enough enthusiasm to improve the sprayer and there was no push from the Government because the incentive was to use more pesticide, not less, since this was the aim of manufacturers.

Lord Melchett again asked about the onus being on the farmer, even if a machinery manufacturer had advised him on the choice of machinery. The farmer would have a case in civil law against the manufacturer but would at the same time be prosecuted in criminal law. Would the farmer have the "due care and diligence" defence against the criminal charge?

> "The Government are aiming their controls on application techniques at the farmer, making sure that farmers use due care and diligence in applying pesticides, and they have said it would be too unwieldy to try to test machinery when the manufacturers are responsible for it. They want to keep all their controls on the farmer. In the case that I have suggested, it seems to me quite possible that the controls would not bite anywhere. The farmer would simply pass the buck to the manufacturer, and the Government have decided not to look at what the manufacturers do".

Lord Belstead said:

> "...the Government feel very strongly that the responsibility for the safe use of pesticides has to rest with the user. I have deployed the reasons why we feel that but we do feel deeply. So far as the hypothetical case which the noble Lord has put to me is concerned, I was not meaning to be flippant. After all if the noble Lord or I were to have the misfortune [to have a very bad car accident] it would be a matter for the courts to decide where the responsibility lay if we then started to argue that the steering or the brakes had failed...Having said that I take the point that the noble Lord is concerned about where the control should lie...I feel that the Government are right in saying that the point of control ought to be with the user".

In Lords committee day two (HL, 1984d) Lord Stanley worried that the proposal to set minimum rates might stifle new techniques. In the past chemicals had been recommended at much higher rates than were now used, and the trend to lowering rates should not be stopped. CDA and electrostatic sprayers could deliver a very low concentrated dose if sprayed in oil. There was a temptation for manufacturers to specify higher than necessary rates, if only to protect themselves, especially as efficacy

claims could fall off with less chemical but greater safety. Earl Swinton (C), for the Government, said that minimum *dilution* rates were set to ensure spray was not dangerous to the operator or bystanders.

Later in committee, Lord Stanley introduced an amendment to ensure a progressive attitude to new technology and new pesticides.[21] This would encourage new pesticides and formulations by stating on the label a range for timing, application methods, and wetters. He was especially worried about tank mixes. Companies would recommend mixing only from among their own products, whereas mixing with one belonging to another company might be better. The amendment would make it necessary for the Minister to state on the label "cross company" tank mixes. Wetters could cut down the application rate very considerably. The development of CDA should not be stifled: presently 20 products were approved for CDA although a farmer could use other products too. But after passing the Bill he would not be able to do so. What farmer would buy a CDA sprayer if he could only use 20 products with it?

Lord Belstead, for the Government, said he was conscious of the need for flexibility. At the moment labels placed too many restrictions. They would be reviewing labels to ensure unnecessary restrictions would be removed. They hoped to deal with new application techniques in a code of practice. Codes would be developed on safe tank mixes. The amendment was withdrawn.

At Report (HL, 1985a) Lord Stanley moved an amendment to ensure that only a blatantly dangerous mix was prevented and other approved chemicals could be mixed.[22] If the farmer mixed chemicals which resulted in damage to his crop, the blame would be his. He could not think of a tank-mix case where damage would be to anything other than the crop. Tank mixes should be innocent until proven guilty. Lord John-Mackie (L; farmer) agreed with the amendment, mainly because of the tremendous saving in costs in tank mixes. Lord Belstead affirmed the advantages to the farmer, but did not think all mixes were safe to operators. The Government believed that it was safer to restrict tank mixing to those combinations which had been screened. They had already approved a number of mixes and intended to strengthen the screening arrangements as quickly as possible. They would encourage manufacturers to submit applications for tank mixes with their applications for clearance. Lord Stanley said he could not think of a pair of chemicals which were more toxic when mixed. Producers

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21 15(3)...resolution of each House of Parliament.
( )In contemplating and regulations made under this section for the approval of pesticides, the Ministers shall have regard to the desirability of maximising (a) the scope for users of pesticides to improve the cost-effectiveness, timeliness and flexibility of pest control operations; and (b) the scope for the development and adoption of new techniques, together with integrated pest management.
(4)If it appears to the Ministers...

22 15(1)...and in this Part of this Act "regulations" means regulations under this section.
( )The simultaneous application of approved pesticides by means of the same machine shall be deemed to be approved under regulations made under this section, unless, having regard to the desirability of protecting the health of human beings, creatures and plants, and of safeguarding the environment, the Minister directs otherwise in any particular case.
(2)...Pesticides may be identified in any way...

were to be allowed to put tank mixes forward. If a farmer put forward a tank mix for clearance would he have to pay a fee? He did not see companies putting mixes forward for approval. The amendment was withdrawn.

Lord Stanley moved another amendment designed to ensure that a progressive attitude to new technology was built into the terms of reference of the ACP, which should appoint a sub-committee to deal with the development of new sprayers, new pesticide formulations, efficacious tank mixes, and pesticides for minor crops. The membership of the ACP should be widened with appropriate expertise. Lord Northbourne said approvals of conditions should be more creative and innovative. It was important that they should do this because the manufacturing companies would not. Lord Belstead agreed that such development should be encouraged. However things were being done already without having to set up a committee, for example work at ADAS. The Government was already reviewing the scope of the expert panels to the ACP and what had been said would be considered in the review.

At third reading (HL, 1985b) Lord Belstead moved amendments which allowed the Government to grant consents to particular types of activity, such as application methods, so that it was beyond doubt that the Government had powers to apply conditions to such things.

Lord Stanley moved another amendment, based on the NFU brief, to allow the ACP to take a creative role in the development of pest control practices by providing them with the power to take the lead in offering advice and providing for Ministers to consult it on development. Having stopped private individuals from "doing their own thing", the Government must now encourage innovation themselves. The existing role of the ACP would not have included this role of monitoring and reporting to Ministers on the efficacy of low dosage techniques, biological alternatives and more efficient machines. Lord Mackie agreed that the ACP should advise and not simply be a tool of Ministers. Lord Northbourne cited correspondence with ADAS which suggested that CDA was not being encouraged by them. He also cited a user who obtained a clearance to use a number of chemicals with one manufacturer's CDA machine, but could not use the chemicals with any other machine. Lord Belstead agreed that the ACP should be able to offer advice. He was happy to accept the principles involved, and would put down an amendment in the Commons. There was no truth, he said, in the claim that the legislation would put CDA in jeopardy. The amendment was withdrawn.

On 26 February (between Lords and Commons stages of the debate) a dossier was published by FoE (FoE, 1985) listing more than 100 incidents in which pesticides affected the public, animals and the environment. It recommended that limits on the quantity of pesticides sprayed and on numbers of applications should be introduced and a reduction in pesticide usage should be an official policy objective. Spray machinery tests should also be introduced.

In second reading in the Commons (HC, 1985a) general support was given for innovation and an ACP advisory role. Mr John (L; Opposition Agriculture Spokesman) sought an assurance that the regulations would not hold back more accurate technology, and testing of equipment to ensure accuracy. Mr Campbell-Savours (L) advocated the adoption of a series of British Standards for spray equipment: on upkeep and safety; droplet size; amount of drift; and chemical safety. This would give farmers confidence in the efficacy of the machinery they were buying. Mr Davies noted that the Statement of Intent said both minimum and maximum dilution rates could be specified in terms of concentrate per volume, whereas he had hoped the Government would take steps to ensure spraying was by CDA. Mr Farr noted the AEA's concern that more sophisticated machinery would not be considered under the Bill and that it wanted to be consulted on machinery. They were also concerned that a training onus should be placed on sprayer users.

As noted in the section on Broad Policy Objectives, Mr Farr, for the NFU, introduced an amendment in Commons committee (HC, 1985c) which made the "continuous development of means" one of the main objectives of the Bill.[23] The NFU said this was "...to give farmers room to manoeuvre...the boundary of legislation should be just inside the upper and lower levels of safety, not just set to the manufacturers recommendations".[24] Mr Farr said it was designed to recognise that in pesticides there was no state-of-the-art situation: there was a continuous flow of development and a continuous accumulation of knowledge. (This was bound up with another amendment to allow the ACP to accumulate such new knowledge on its own initiative.) "One could be a farmer today who applies a chemical which is out of date and out of use and the application rates can be changed tomorrow".

For safety reasons there was wide agreement on the opposition benches, and by farming interests on the Government benches. Mr John agreed in terms of safety and on behalf of the fears of application machinery manufacturers. Old machinery often applied too much pesticide and the Bill should not inhibit research to develop safer means. Mr Carlisle (C; farmer and agricultural supply trade) agreed, saying that no aspect of agriculture changed faster in terms of R&D than chemicals and their application and use. The amendment was in the spirit of the Bill and of those who were directly engaged in the trade of spray chemicals. If the Bill were seen to restrict the changing of techniques or their application or dosage rates they would be doing a disservice to the agriculture industry.

For the Government, Mrs Fenner said she appreciated the wish to insert the concept of a continuous development over time of the safe, efficacious and humane use of pesticides:

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23 The Provisions of this Part of this Act shall have effect (a) with a view to *the continuous development of means* (i) to protect the health of human beings, creatures and plants; (ii) to safeguard the environment; and (iii) to secure safe, efficient and humane *methods of controlling pests.*

24 Interview, NFU, London 25/11/85.

> "Of course we would want such an improvement to occur. We are in favour of a continuous development of pesticides which results in safer and more efficient materials, uses and application methods. It is precisely because we want such improvements and know the value of forecasting improvements and developments that we have sought broad powers in an enabling bill which can be amended in regulations to suit changing circumstances. The Bill as it stands does not prevent this so there is no reason to insert new words".

Mr John said the present practice of clearing one pesticide for one application method might restrict the usefulness of the Bill, and asked whether new pesticides would be tested for safety and efficacy using all reasonable methods of application rather than just one. Mrs Fenner replied that because of misunderstanding on this aspect of their proposals a press release had been issued saying that there was no intention of outlawing the development or use of new techniques. "We hope our consultation process will help us to establish how best this can be done so the data provided covers other uses and applications". Mr Farr said that the amendment (and accompanying ones) were "significant in that they seek to provide scope for reducing the use of pesticides". There were means other than pesticides for controlling pests. Biological control development should be allowed and not restricted. Reduced application rates and tank mixes had been developed by users and had subsequently been adopted by manufacturers and ADAS. Clause 15 was framed so that it was likely to restrict severely the ability of farmers to proceed with innovation. The ACP should have the ability to promote this development and innovation. Regulations must be drafted so as to permit some latitude around current recommendations to permit progress and innovation within what one could call windows of safe use. The Government had indicated that it intended to provide "windows of safe use" with respect to maximum application rates, active ingredients and minimum dilution rates. That meant the farmer or grower could continue to strive to achieve the lowest possible application rates. Other "windows of safe use" were needed however on timing of application, spray deposition characteristics, use of additives, tank mixes and range of crops. The successful establishment of some windows of safe use would require changes in the type of tests undertaken by chemical manufacturers when seeking approval. (The nature of any new tests and extrapolation of results for registration purposes required the attention of the ACP, which should be able to look at alternative means of pesticide control.)

Mrs Fenner replied that ADAS did such research into IPM and pesticide alternatives.

> "The Government's policy is to reduce the use of pesticides to a minimum compatible with efficient agriculture. We made that clear in our response to the seventh report of the Royal Commission on Environmental Pollution. That is on the record, but it is not necessarily appropriate for the Bill...Nothing in the Bill will prevent innovation. The Bill is being drafted broadly to ensure that".

Mr Farr replied that:

> "It is an important point of principle. [The Minister] said that there was nothing in the Bill to prevent innovation. But the purpose of this tiny group of amendments is to shift the whole emphasis of the Bill to inject a new and positive commitment to innovation in the Bill".

The amendment was put to the vote and was passed against the Government's wish 9 to 6. The Opposition all voted aye, plus Mr Farr, Mr Carlisle and Mr Skeet (C).

Also in committee, Mr John moved an amendment setting out conditions which should appear on a label. These included permitted application methods, maximum application rates and minimum dilution rates and permitted tank mixes. The amendment focussed on a mode of compliance which encouraged information, advice, training and general education rather than compulsion and penalties, and gave farmers a choice, enabling them to use their judgement, hopefully to choose safer alternatives. If the intent of the Government was to make people observe precautions, recommendations and requirements stated on the label (and in COPs), then why not make them explicit? Mr Carlisle thought labels comprehensive enough already and that the industry had already shown great responsibility in giving information. He suggested that the amendment gave farmers no flexibility. Farmers sometimes judged it better to use more or less than the recommended amount. Mr Campbell-Savours said it was important to specify minimum dilution rates as opposed to minimum application rates because there was a trend to use less active ingredient and also a trend towards using lower volumes to render the application of an active ingredient more cost-effective. The lowered ratio of dilutent to active ingredient must be kept from falling below a certain minimum for each formulation to avoid high concentrations of pesticide being applied to crops, the environment and operators. No minimum application rate should be specified as farmers were well enough informed on the minimum effective dosage.

It was felt that manufacturers would not initiate techniques which reduced rates of application. They should develop pesticides which remained efficient at low application rates. On tank mixes, he said that at least mixes which might not be used should be noted on the label. Mrs Fenner, for the Government, said that the powers were wide enough to include everything in the amendment. Although it was in tune with their thinking, they should have a consultation before committing to such detail. Application methods, machinery and tank mixes would be more appropriate to a code of practice. It was possible to specify permitted application methods by regulation, but that might impose severe limitations on the development of new application methods. Mentioning specifics in the Bill would make it difficult to introduce others later. Requirements for labels would be set out in regulations and she gave an assurance that all requirements specified in the amendment would be included.

Mr John moved another two amendments, supported by the BAA, requiring that equipment be tested for effectiveness and obsolete machinery withdrawn from

manufacture gradually, and that inspection of equipment be provided for, in accordance with the RCEP's recommendations. The Government had rejected an official efficacy test for machinery saying they would recognise a self-financing test such as that of the National Institute of Agrochemical Engineering. There was concern about inhibition of new machinery, but efficacy testing of new machinery was important too, and new machinery which was obsolete should be withdrawn before sale. It was unfair to place the onus for machine efficacy on the farmer. The manufacturer or supplier of equipment should bear the onus for the efficacy of a machine. In addition equipment in use should be inspected and machinery clinics should be provided. Mrs Fenner opposed the amendments on the grounds that it would be difficult to define obsolete. They already indicated appropriate equipment for individual pesticides. The power existed to turn the recommendations in these amendments into conditions if they chose. Codes of practice would specify adjustment and use of equipment. A test would not guarantee safe use - that depended on the operator. Mr John said that that was where training came in, but in addition maintenance of equipment to ensure it was mechanically sound was important. Mrs Fenner said (a) there would be a general duty on users to act safely, (b) over time they would specify equipment-pesticide combinations, (c) how pesticides should be applied would be specified, (d) codes of practice might specify maintenance standards, and (e) enforcement officers would bring to court anyone contravening a statutory condition or the general duty, including anyone using the wrong machine or the right machine wrongly. Mr John said that a farmer would only expect a visit every 6 or 7 years so he might consider using badly maintained machinery worth the risk.

Mr John said that it was no argument against the MoT test and certificate, that cars did not remain as safe as the day they were tested, or that the certificate did not guarantee the same level of safety some time after.

Mr Carlisle said that it was often new chemicals which made a machine obsolete. Mr John said there was a danger in a pesticide manufacturer being tied to one means of delivery. If chemicals and machines were tied, farmers would have to change machines all the time for new chemicals. It should be possible for a chemical to be tested for a number of application methods. The amendment was negatived.

Dr Clark (L; Opposition Environment Spokesman) sought an amendment to ensure the development of improved application techniques was within the ACP's remit. According to the RCEP, ULV and CDA techniques might reduce the total active ingredient applied by 25%. The ACP should be able to give advice on this as well as on safety and efficacy of pesticides. Mrs Fenner said that the statement of objectives covered this and that the new scheme would be more closely concerned with pesticide application than the voluntary scheme. These concerns would therefore be an integral part of the ACP's concerns when it considered approvals.

Mr John moved an amendment requiring pesticide approval test data to be provided for all application methods currently in use.[25] If test data were not submitted in respect of a method, approval would not be given for it. The AEA were worried that existing clearances were for hydraulic nozzles, so manufacturers would now have difficulty selling other machines. The question was, when new application equipment was developed, should the duty lie with the pesticide manufacturer, the equipment manufacturer or the farmer to test the machinery for all pesticides? They felt that chemical manufacturers should do it - it was easier for them to test a pesticide for all application methods as they were doing the test anyway and had the resources. Manufacturers should aim to enable pesticides to be applied from a wide range of machinery. The Government's assurance was sought that they would not allow outdated methods to continue simply because all methods of application had not been tested. Manufacturers should never get an approval for a particular method. Mrs Fenner said there were other solutions. The machinery manufacturers could also have access to the approvals process for example. More time was needed to develop the best way to proceed. However regulations would be drafted so that they neither explicitly nor implicitly prohibited new application techniques. The amendment was withdrawn.

Purposes for which Pesticides to be Used. In Lords committee (HL, 1984c), Lord Melchett moved an amendment proposing a new clause on the availability of pesticides for use on minor crops.[26] This would be achieved by insisting that manufacturers did the necessary testing when they applied for approval. Lord Belstead said there were several possible options for ensuring that pesticides could be approved for minor crops and he would look carefully at them.

Lord Northbourne also moved an amendment which recognized minor crops similar to existing crops, and those which were more exotic.[27] In the former case a scheme such as the rapid clearance scheme for imports could be set up. In the latter case the manufacturers might be required to go to the expense of making special provision. Lord Belstead said that Lord Melchett had put forward one option for making sure of the continued development of pesticides for use on minor crops, that was compulsion. Another way would be to provide farmers and growers with direct access to the approvals process. The Government had not yet made up its mind. One

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[25] *(11A)Any information provided in accordance with subsection 11(a) above which incorporates a claim that a pesticide cannot be applied safely or efficaciously by a particular method shall include test data relating to the application of that pesticide by that method and any information provided in accordance with the aforesaid subsection which incorporates a claim that a pesticide can only be applied safely or efficaciously by a particular method or methods shall include test data relating to the application of that pesticide by any methods of applying pesticides which are thereby excluded.*

[26] *Ministers of the Advisory committee on Pesticides may, for the purposes of determining whether to approve any pesticide, request such tests to be carried out by or on behalf of any person seeking such approval as appear necessary to ensure sufficient pesticides are available for use on minor crops.*

[27] 15(3)...approval by resolution of each House of Parliament.
( )In contemplating any regulations made under this section for the approval of pesticides the Ministers shall have regard to the desirability of (a) maximising the range of crops and pests for which pesticides are approved; and (b) ensuring that approval is extended without delay to substantially similar uses.
(4)If it appears to the Ministers...

thing was certain, a move away from restrictions on farmers must be made towards wider recommendations. Lord Melchett said the distinction was between the manufacturer and the user paying the cost.

At Lords report (HL, 1985a) Lord Stanley brought back the same amendment to probe whether progress had been made in the method by which clearance would be given to use pesticides on minor crops and who would pay. Lord Belstead said that further discussions had made it clear that requiring manufacturers to seek approval for all crops was a problem because of liability for crop damage. The preferred alternative was giving growers direct access to the approval system without requiring them to generate expensive data and placing liability for the minor use on the grower.

There was no substantial debate on minor uses in the Commons.

7.1.5 Conditions Applied to Pesticide Use Outside the Approvals Process

Training of Users. In the first committee day in the Lords (HL, 1984c) Lord Mackie moved an amendment on training,[28] saying progress should be made towards training courses for, and licensing of operators, as spraying was probably the most dangerous operation on the farm.

Lord John-Mackie moved a similar amendment.[29] Lord Melchett noted that training and licensing was recommended by the RCEP. It was not clear whether the Bill as it stood could encompass licensing as well as training. Lord Northbourne mentioned the problem of unsupervised operators if the licensed operator fell ill. Lord Stanley thought training reasonable, but licensing carrying interference too far. Lord Belstead, for the Government, said that the power to include licensing was in the Bill, but that the Government did not propose to introduce official licensing arrangements. He believed training was important, but did not intend it to be mandatory. The ATB ran a spraying course which led to a craft certificate, as well as other relevant courses. Last year it had trained 2,648 people in a variety of pesticide related courses. Lord Mackie replied that Lord Belstead was not encouraging training. There were many farm workers and small and large farmers who did not know enough about the dangers of quantities and mixing and spraying. Certification was also necessary to ensure adequate training, to prevent trained persons who were nevertheless idiots from using dangerous sprays. Lord John-Mackie said that the whole Bill was about controlling the dangers of pesticides and it was therefore ridiculous that the person who sprayed should not be controlled. Lord Mackie said that if left to existing practices, the ATB would take 40 years to train everyone.

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[28] 15(3)...approved by resolution of each House of Parliament.
( )Where it appears to Ministers that substances approved for application under section (15)(1)(g) above may affect the health or safety of persons of work they may require that such applications be made only by or under the supervision of licensed operators after a preparatory period of five years.

[29] 15(5)...of any of its international obligations
( )After a period of four years from the passing of this Act all spraying on areas over 0.5 of a hectare must be done by an operator trained and in possession of a certificate of his competence. It will be the duty of the Minister to see that training facilities are available.

At Lords report (HL, 1985a), Lord Gallagher brought out substantially the same amendment, but requiring training and certification obligation to apply only to supervisors. It was not unreasonable to ask Ministers to ensure that training facilities were available. The ATB would be ready and willing to do this. Earl Onslow preferred a COP for spraying. Lord Melchett thought it might not be practical to limit the area sprayed to half a hectare and that all areas, no matter how small, should be sprayed under a certified supervisor. Lord Belstead said that if more needed to be done the power to impose conditions on use would cover it. The Government would consider making training and certification conditions of approval on the user, but consultations would continue. The amendment was withdrawn.

At second reading in the Commons (HC, 1985a), Mr Carlisle noted that the clearest case for training was for contractors, as such firms might affect neighbouring properties, especially industrial pest controllers who sprayed in hospitals. Farmers should be trained and certified by the ATB to prevent health problems to themselves from spray. There was general support for training, at least of supervisors.

In Commons committee (HC, 1985c), Mr John moved two amendments on training, one for sprayer operators (farmers or contractors) and the other to ensure that the Government provided the training courses. The BAA had noted the mismatch between high-tech application methods and unskilled operators. The AEA was dissatisfied with the way their equipment was being used on farms and suggested a statutory training obligation. The ATB was the appropriate body. They needed a picture of the current level of competence. Approval of pesticides should be conditional on suppliers providing training for users, and users would have a duty to train workers. Mrs Fenner said that the Bill placed responsibility for safe use on employers and users. This was a powerful stimulus for users to aquire training. The Government intended to require commercial operators to provide evidence of appropriate training and supervision standards. In relation to farmers and farm workers there was a legal requirement for users to act safely, and a COP would advise farmers that they should be able to demonstrate that appliers possessed training. As well as the ATB, local education authorities, chemical manufacturers and machinery manufacturers did training, so a substantial proportion of farm operators had been trained. This, together with the responsibility the legislation placed on users, should boost the demand for training. The ATB was confident that it could respond to the demand for training which the legislation would generate. MAFF officials were discussing practical problems with the ATB. In response to a question on penalties for failure to be trained, Mrs Fenner said that training would not be made a legal requirement, though the legal responsibility of the user would be in the Code of Practice. Mr John said the "legal responsibility" depended on enforceability. *Regulations* should cover training for users.

7.1.6 Other Significant Amendments and Decisions: Synopsis

As well as application equipment and disclosure of information, there was strong pressure on exports and aerial spraying.

On 5 December Michael Spicer (Undersecretary of State for Transport) announced that controls on aerial spraying were to be tightened from 1985 (DTI, 1984). The minimum horizontal distance to be maintained by aircraft from houses was to be increased from 75 to 200 feet; aircraft would have to fly at least 200 feet above gardens; and water authorities would have to be consulted by operators before spraying was carried out near water. These changes supplemented the prior notification arrangements announced in July. Many peers wanted a ban on aerial spraying other than in exceptional circumstances. On 13 December, a PQ on aerial spraying revealed that the new distance from houses announced on the 5th was well below that applied in other European countries. Criticisms of aerial spraying controls drew a promise that the Government would review the distribution of responsibility for aerial spraying, and review existing clearances for aerially sprayed pesticides.

At third reading in the Lords (HL, 1985b), an amendment to introduce prior informed consent (PIC) for exports went to a vote. The Government said it was unwilling to accept the principle ahead of other countries or before it was agreed internationally. In any case the amendment went further than the draft code which only applied to pesticides banned or severely restricted. The amendment was narrowly defeated 29:24. In the Commons a Labour amendment seeking to introduce PIC was taken to a vote and defeated 8:6. The principle would have enhanced the sovereignity of importing nations by placing the onus on them to decide whether to accept the hazards involved. The UK had an opportunity to support the current moves by the Dutch Government to incorporate the principle into national legislation, thereby increasing pressure on other EEC countries to follow suit and help reduce the 400,000 pesticide poisonings which were estimated to occur in the Third World every year, argued Mr Campbell-Savours. The Government retorted that not a single developing country had spoken in favour of PIC when the principle was recently deleted from a draft UK code of conduct. In its place would be a requirement that importing countries should be notified when a ban or severe restriction on a pesticide was first introduced in the exporting state, and again on first shipment.

The Government refused to say whether they would take advantage of the provisions in the forthcoming EEC residues directive for MRLs not to be observed for food destined for the home market whilst imposing them for food traded between member states.

7.2 Concurrent Procedural Factors

Non Substantive Objectives. The Government objective to establish a framework for substantive policy in the primary legislation was more important to them than

developing the substantive debate in this phase, at least within Parliament. The pesticides part of the Bill extended to just four pages and included only three sections. The Government, advised by the executive, controlled the debate and its outcomes largely in order to preserve this framework, so that the details of regulations could be decided in the administrative phase. This is not to say that the views of Parliament would not be taken into account, only that if they were it would be when Parliament was no longer in a position to negotiate.

In the introduction to the Bill Lord Belstead said that his priority was to establish a framework (to be supplemented by regulations). This exercise would be seen as part of a continuing dialogue with all the responsible interests. He said the Government would listen and in due course put proposals to Parliament. An unofficial aim was to secure a rapid parliamentary passage and get the Bill onto the statute books early in 1985. In fact the lack of detailed provisions for controls thwarted this aim and the Bill did not become a statute until July 1985.

Government Arrangements. As with the proposals, the arrival of the Bill in Parliament was speedy. The FEPB was introduced in the Lords. It is often thought that a reason for this is that bills receive their most effective scrutiny and shaping in the Lords, and that the Lords make a more substantive contribution to shaping policy in Parliament than does the Commons, through the amendments it forces on Government. However in this case the Government wanted more time to prepare its own case before arriving at the Commons.

A junior MAFF Minister was appointed to conduct the debates on pesticides in the House of Commons. She was new to pesticides issues and to legislation, and her lack of confidence led to a rather less flexible approach to dealing with amendments than might have been the case if she had had a greater appreciation of the impact of amendments. She very much stuck to her brief which led to inertia and frustration in the debate.

A "Bill Team" advised Ministers in Parliament. It consisted of senior PICD civil servants, who brought in additional individuals with particular expertise (from PRSD, NCC, other MAFF science divisions and other Government departments) for particular debates in Parliament.

Government-group consultations and negotiations continued throughout this phase, especially during Commons committee stage, as did group-opposition meetings, meetings between opposition MPs and Ministers, meetings between Government and Conservative MPs, and meetings between opposition MPs. Environmental groups lobbied especially hard between Lords and Commons stages for further amendments. FoE, for example sent a letter to Lord Belstead listing 23 points it hoped would be raised during the Bill's passage in the Commons.

Control Tools. Subsection 15(1) was the main provision empowering Ministers jointly to make regulations and 15(3) specified that this would be by statutory

instrument. Subsection 22(3) introduced some flexibility in the exercise of powers, with provisions that (1) the powers need not be exercised in their entirety and (2) incidental and supplementary provisions to regulations could be made. Subsection 15(3) of the Bill required the Government to submit regulations made under 15(1) for the affirmative resolution procedure in both Houses of Parliament. At committee stage in the Lords (HL, 1984c) an undertaking to aim to bring in regulations by 1 January 1986 was given. In fact, the first set of regulations did not materialise until October 6 1986.

A research assistant on the Bill said:

> "There is usually something left to the regulations in any legislation. The question is how much. In this case virtually everything substantial was left to the regulations...[30] because the Government is avoiding trouble. Even the social security Bill had a lot more detail...the procedure is very unsatisfactory. The debate on regulations is only a 1.5 hour procedure and the regulations can't be amended. The Government still had the opportunity to introduce detail at committee stage, which is where the amendments on detail should have been allowed."[31]

Hogwood (1987) notes that at committee stage in the Commons Ministers normally try to be accommodating to interest groups so as not to alienate opinion, and may give concessions if they do not involve too much compromise of principle. In this case the Minister was quite intransigent, probably through inexperience. In addition the Government were making their minds up as they went along: "...the Government genuinely hadn't made their minds up on a lot of things". However, although the Government had originally conceived of a fairly limited measure, and although there were few concessions given, "...they did end up going further than they had originally intended".[32]

Representation on Advisory Committees. At committee stage in the Commons (HC, 1985c) there was a minor concession from Mrs Fenner in that the Government would now "welcome an input from representatives of the trades unions" on panels advising the ACP and SSC. However moves to include trade union, consumer and conservation interests on the ACP itself were denied.

7.3 Influences on Participation and Policy Making

The Bill included in its scope many more pesticides than those covered by the PSPS, thus including in its powers the troublesome area of anti-fouling paints, as well as many other areas which it might later need to regulate.

Non-agricultural trade associations felt that Parliament, and the PICD, did not realise or had not been made aware of the fact that legislation covered them. The

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[30] There is a tendency to move in this direction in legislation and there are a number of reasons for this: 1) if the detail is complex and the subject itself is a changing one; 2) if the Government have not made up their minds on the detail and do not yet know enough.

[31] Interview, HC Research Assistant, London 10/2/86.

[32] Interview, HC Research Assistant, London 10/2/86.

result was that much lobbying was carried out to appraise Lords and MPs of the facts.

During this phase the rapid clearance scheme was to be implemented in response to EC pressure, to start on 1 January 1985. This was to be non-statutory and introduced administratively. Thus the criteria and procedure for establishing the extent to which products were identical and therefore the ease with which such trade could take place would not be discussed openly in Parliament, probably for fear of pre-empting the debate with manufacturers. The regulation that all pesticides had to be submitted for approval would cover non identical imports statutorily, but the administrative criteria for identicalness would still determine non-identicalness and thus which imported pesticides submitted to the rapid clearance scheme would have to submit test data. Various attempts were made to have the criteria upon which judgements would be based made statutory so that the details could be discussed, or at least to know the proposed criteria. A non-statutory scheme would preserve discretion, with no assurance that the criteria would always be adhered to. The Government had already decided the broad criteria. An identical product would have to be produced by the same company, have the same active ingredient and tolerably the same formulation, demonstrated by production of the label and batch number. Some Lords disagreed that the product had to be from the same company, thinking this restrictive to trade. Unscrupulous manufacturers could still potentially keep out identical products under this regime by refusing to identify batch numbers, although the test data on file could now be used to facilitate approval for these products.

The data requirements for registration might have been expected to produce the most technical debate. The head of PICD, when questioned, said he regarded efficacy and humaneness as the most technical area of legislation, but that the level of public debate on these was not good and that the interest group debate was mainly with the industry on protocols.[33] This probably had much to do with the fact that the PSPS, if not ACAS, was well established, and no effort was made to review the basic safety requirements. As the head of the Harpenden laboratories said:

> "This is an interesting example of legislation because we were running the scheme before. It was not as if we started it in 1986. If it were new then there would have been a need for a *lot* of technical agreement. The legislation was to make the voluntary scheme statutory".[34]

Although the PSPS and efficacy requirements were to be made statutory, a strong preference for preserving a discretionary style in data requirements and keeping detail out of the statute books was reflected in the fact that decision making in this case was left largely to the implementers (that is the PRSD). The head of policy (PICD) said:

"Making the PSPS statutory is the big thing. But the administration [PRSD]

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[33] Interview, MAFF(PICD), London 6/5/86.

[34] Interview, MAFF(Harpenden), Cambridge 25/11/87.

have a hell of a lot of room to manoeuvre in the area of protocols and procedures...We are dealing with a science-based policy where we are trying to have a policy based on the scientific assessment of risk, so regulations can't be cut and dried unless you put things in like 'should never be greater than 1ppm'".[35]

On discretion versus prescription the ex-head of PRSD explained that

"...the difficulty is that there are two basic philosophies in registration requirements 1) the checklist philosophy, where provided people do the tests, they have fulfilled their obligation, as in the USA and Germany; and 2) the PSPS, who only asked for tests if they thought they could use the results. Over the years there have been a number of people on the committee who would not ask for tests if they couldn't use the results."[36]

And a policy person:

"We don't ask for tests on the basis that it would be *interesting* to have the results - only if we *need* more data... The PSPS has always gone for the minimum consistent with satisfactory results. Companies may have problems with other countries wanting them to use more animals, and if there are results for a large number of animals we will look at them, but we would not ask for the tests to be done".[37]

As concerns the reasons for making efficacy testing statutory as well as the PSPS, many interviewees mentioned that the success of a product really depended on whether users found it efficacious and that they would not buy it again if they did not.[38] Questioned as to why a statutory control was then necessary, one interviewee answered:

"Well I suppose one of the reasons was the Government's concern over environmental issues - a challenge could be 'how can you [the Government] justify using a pesticide which everyone knows to be an artificial molecule if it is not any good?'. So if the Government doesn't need to use synthetic molecules they are open to challenge by environmental groups - but it is not my efficacy branch that is concerned with environmental protection - policy is",[39]

a reference to the Royal Society's report on Risk Assessment, which according to one MAFF interviewee had a great consciousness-raising effect in Whitehall.[40] Another answer to the same question brought out the influence of the RCEP report and the adopted policy of reducing pesticide use:

"ACAS developed out of a desire of industry to show that their chemicals were OK, and this was taken with the Ministry's desire to be able to

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35 Interview, MAFF(PICD), London 6/5/86.

36 Interview, MAFF(PRSD), Westoning,11/1/88.

37 Interview, MAFF(PICD), London 17/12/87.

38 For example: Interview, MAFF(Harpenden Labs), Cambridge 25/11/87.

39 Interview, MAFF(Harpenden Labs), Cambridge, 25/11/87.

40 Interview, MAFF(PICD), London 13/3/86.

recommend the most effective chemicals to farmers - the policy that 'pesticide use should be kept to a minimum consistent with effective production' - we don't want to use chemicals that are not effective".[41]

According to the BAA's parliamentary advisor, the relationship between BAA and PICD was not especially comfortable as the BAA were not kept up to date with decisions on issues affecting them. For example they were surprised by the Government's insertion of the information disclosure clause at the end of committee stage in the Commons.

Minor uses and off-label approvals are interesting as problems which arose later in the decision making process. They arose as a result of making the voluntary scheme statutory without consideration of possible repercussions, and a lack of foresight in not involving relevant groups. As the ex-head of PRSD said "In the UK, politicians and administrators developed the thesis that legislation would solve the whole problem - but it won't - it *created* the minor uses problem".[42] The creation of the minor use category was a reactive decision taken late in the legislative process arising from enshrining the existing scheme (entailing making the label statutory) and extending it to all pesticides. In more positive terms: "One of the things FEPA has done is to identify a potentially huge area of use away from a label instruction".[43] Even users who were Government advisors did not foresee this problem: "I didn't really look ahead and see that these problems would arise. We thought our application would continue to have approval. MAFF weren't clear - the situation changes week by week".[44] Users in the Government's plant health division of the Harpenden laboratories sometimes needed to control foreign pest introductions:

"The pests we will need to control won't appear as a measure on a pesticide label, so we have to be able to get some sort of approval for emergency use. We were not so concerned about this before as the label wasn't legal. Now if it isn't on the label we're in trouble".[45]

Although many different proposals for training were put forward in Parliament, no decisions were taken during this phase.

7.4 The Quality of Participation

Timing of the Legislation. The Bill went to Parliament so precipitately that the interest groups had just enough time to prepare their case before Commons committee stage. Even so the AAWNTG "...could only prepare briefs hastily or insubstantially and we reacted to the worst cases by default. This was a pity - it relates to the speed

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41 Interview, MAFF(PICD), London 17/12/87.

42 Interview, MAFF(PRSD), Westoning 11/1/88.

43 Interview, MAFF(PRSD), Harpenden 1/2/88.

44 Interview, NCC, Peterborough 29/1/88.

45 Interview, MAFF(Harpenden), Cambridge 25/11/87.

at which the legislation was put through".[46]

Commons committee stage is usually where the greatest number of representations are made, but in this case this was to an even greater degree than normal. Interest groups tried to get amendments moved by sympathetic MPs.

Level of Detail Given on Controls. The Bill itself was welcomed on all sides as necessary, in principle, and as the correct general approach. It was seen as non party-political, crossing party lines. The SA welcomed the legislation as "...there is the long-term benefit of getting parliamentarians involved, so it is more likely that there will be further reforms in the future".[47] In Commons committee (HC, 1985c) Mr John said that the Bill improved the present unsatisfactory legal position but that the object must be to provide the best possible framework in the light of their current knowledge. Judged by that standard the Bill was not entirely satisfactory to the Opposition.

That the Bill was enabling was felt to be the right approach by some, as it would be impossible to incorporate into the Bill all of the regulations necessary at present plus those which would become necessary in future (for example Lord Walston at second reading in the Lords (1984b)). Mr John, at second reading in the Commons (HC, 1985a), said that that which gave Ministers power to do all that was necessary also gave them the discretion not to do so. He did not believe that in this case it could be left to such wide Ministerial discretion and gave notice that they would try to ensure that it was not.

Obscure Powers. The powers taken in the enabling Bill were felt to be vague and inadequate, with some essential things missing, and much that needed improvement or strengthening. For example Lord Melchett and Lord Craigton at second reading in the Lords (HL, 1984b) intended placing amendments to clarify these powers. Lord Stanley felt that the *Government* should clarify the powers by amendment, because of what might happen in the future if there was an irresponsible Minister or permanent secretary. Lord Melchett said that he took a cynical view of the Government's intentions: they had drafted the Bill and introduced it in this way to short-circuit parliamentary procedure. It was wrong for the Government to have attempted, on a matter as important as this to the general public, to consumers of food, to the agrochemical industry and to conservationists, to come before Parliament with a bill that told them so little about what was actually going to happen.

Lord Mackie said that he understood that it was a very convenient thing for civil servants to be able to put through an order where if they put something good in they could also slip in something distasteful, which was what some less scrupulous future Minister might descend to.

At second reading the Government said that the Bill would give powers to control aerial spraying. Lord Melchett complained that they were obviously able to learn of the

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[46] Interview, AAWNTG, London 29/1/86.

[47] Interview, SA, London 27/2/86.

powers of the Bill by such chance remarks. A whole range of questions about aerial spraying were now opened up. Were there other things not mentioned like this? In Committee (HL, 1984c) he said he suspected that every time the Minister was asked "was such and such a practice covered by the regulation making powers?", his answer would be "yes".

A research assistant working on the Bill in the Commons found "...the main problem was not knowing what the Government intended...they were not giving any clues. We had to rely on the tenor of the Lords' debates".[48]

The fact that powers would be exercised by regulation was not contested. However that Parliament was not allowed to see and debate draft regulations at a time when they could make an input, was. In addition suspicions were voiced that regulations would not be made at all or would be put off indefinitely.

Commitment to Make Regulations, and to Make them Soon. As the Bill did not specify a timescale for regulations, some doubted that the Government intended bringing in regulations at all. An amendment curtailing this flexibility (Lords committee; HL, 1984c) sought to place a deadline for regulations of 31 December 1985, since the Government had said it was aiming for 1 January 1986; using '"shall" make regulations' in place of '"may" make regulations' to hold the Government to making regulations. Lord Melchett said that the amendment merely committed the Government to making regulations, and did not tie them to their content: the flexibility to withdraw regulations without parliamentary consideration was undesirable. Lord Belstead said that (given the legislation was enabling) power to make regulations was almost always permissive, not mandatory. Carving regulations in tablets of stone in the Act was asking for trouble because of the need for change with time. The Government were genuine in their intent to put regulations into effect. The Statement of Intent showed this, and he gave a commitment to do so after consultations within 1986. December 31 would be difficult because of the pressure it would put on staff, and because of having to wait for residues negotiations in Europe, and FAO and UNEP initiatives on exports. There would be a block of regulations, with some regulations coming out later, like residues.

In the Commons (HC, 1985a), Dr Clark said that 30 years ago the Zuckerman Committee had recommended the same controls as were being formulated now, but they were subsequently suppressed by a Ministry committee. How were they to know the purpose would not be retracted again? Mr Hughes cited the COPA, which was still being enforced 10 years later.

Availability of Draft Regulations for Debate. Many felt that draft regulations or at least some clarification should be presented to, and discussed in Parliament before enactment, since there was such a short time available for debate when they were

[48] Interview, HC Research Assistant, London 10/2/86.

presented formally under the affirmative resolution procedure. Many Lords complained that not knowing the content of regulations was causing confusion in the present debate where it ought to be facilitated. It was impossible to gauge the effect of the legislation otherwise. The success of a bill depended crucially on the regulations, and Earl Peel had had requests from the NFU, CLA and RSPB to have the draft regulations put before Parliament. In the House of Commons, the Early Day Motion on the legislation, signed by 213 members called for the publication of draft regulations to enable informal debate.

The Government had previously granted such a request on the Telecommunications Bill (Lord Stanley; HL, 1984b). Lord Melchett believed that a draft of the regulations was in existence because other Government departments, especially the Treasury, would not let a bill go before Parliament without a clear idea of regulatory intentions. It was therefore inexcusable that the Government had not responded to requests to see draft regulations. Letting Parliament see draft regulations would not preclude consultation with interest groups but would allow proper consultation with Parliament. The Government should not think it could short-circuit parliamentary procedure.

Lack of clarity made itself felt in all debates on substantive issues (see previous sections), and led to the extraction of information through detailed amendments and very long committee stages. Lord Craigton asserted that verbal assurances on the regulations should not be accepted, especially since assurances about what would be in the Bill, like an allowance for the development of new application techniques, had not been substantiated.

Lord Belstead said that in this case there would be a great difference between the legislation and the regulations. The legislation had to provide for all future eventualities. A second reason was that the wording of the regulations would have to strike a fine balance between freedom and compulsion such that consultation with interests was necessary first. He would endeavour verbally to present the Government's view on intended regulations point by point as the debate proceeded.

The Notes on Clauses (MAFF, 1984m) produced between Lords second reading and committee were felt to be inadequate.

At Lords committee Lord Belstead said it would be difficult for the various interests if there was no room for a genuine consultation because Parliament had tied up the regulations so tightly. He had now issued a Statement of Regulatory Intention (MAFF, 1984n) to show good faith. It had taken so long because nine departments had had to clear it. It was modest because a balance had to be struck between the interests of people who believed pesticides had to be treated with the greatest of care because the vast majority of them were dangerous, and the interests of pesticide users who had to deliver products to the consumer in good condition.

Earl Onslow wanted a sight of the draft regulations, so that the maximum amount of consultation was done in public, asking "...can we avoid the obsessive English disease of secrecy? All these consultations seem to have gone on behind closed doors - whisper, whisper! The more that these regulations are discussed in public the happier we shall be when we get an agreed solution at the end of them!".

At the end of third reading (HL, 1985b) Lord Belstead said the Lords would be able to comment on details in the consultative document which would be issued after enactment.

Similar complaints were made in the House of Commons. There was nothing to "get the teeth into" and comments could not be usefully made without seeing the draft regulations (Ms Maynard (L); HC, 1985a) and there were therefore many fears about Part III of the Bill (Mr Carlisle). Mr John believed the regulations must already have been drafted, if they were to be enforced by the end of the year, and if they were not then the Government's statement as to the timetable was valueless. Mr McGreggor (C; Minister of State, MAFF), for the Government, said that the regulations were incomplete. There were some thoughts as to what should be in them and these were in the Statement of Intent. It was true that a crucial part of their intentions would be in regulations which was why they would consult, including MPs. Mr John said that the passage of the Bill was the last opportunity the House of Commons had to express concern over the content of the regulations, as the affirmative resolution procedure meant the regulations had to be accepted or rejected as a whole, and they could not then reflect any dissatisfaction on behalf of any organisation which believed its views had been ignored in consultation. Wide scrutiny could be given if the regulations were available in Parliament, even if they were presented piecemeal, and a draft should be available before committee stage. Mr Campbell-Savours said that maximum information should be given as there was such wide all-party agreement on legislation. The DHSS made known precisely the topics to be covered by regulations, so that omissions could be pinpointed. The House would not tolerate consultations where nobody could contribute to discussions.

Other reasons offered in favour of providing draft regulations were variously that this would provide a more reasonable and rational debate (Mr Campbell-Savours); that it was unreasonable to be expected simply to accept the regulations later (Mr Howells; Lib); that the promised detail might not make it to regulations if it were not seen in Parliament and that it was a duty to assure Parliament and country that regulations would protect the public interest (Mr Hardy); and that all organisations needed to be properly consulted (Mr Farr; Mr Skeet).

Dr Clark said it was ridiculous to talk of prejudging the outcome of consultations with groups. Draft regulations would be released to these groups for consultation, and Parliament had a right to have a say in the formulation of regulations too. Some of these groups (for example NFU and RSPB) were themselves calling for draft

regulations to be placed before the House. When working committees were left to make regulations, they were found wanting, for example the WCA 1981.

Mrs Fenner, for the Government, gave much the same reassurances as Lord Belstead, saying that regulations coming after powers to make regulations was a logical order. Members of Parliament could present views during the consultation period.

In Commons committee (HC, 1985d), Mr McGreggor stressed that the Government had only consulted interests on powers, not on details which were not available to the committee. The content of the expanded Statement of Intent (MAFF, 1985c) had not been appreciated, and he was now asking the department to prepare the possible headings of regulations to be drawn up.

Mr Davies said that the Bill was technical, so technical details had to be given in order to assess its impact. The Minister had said intentions would be given as they went along, but there were no details, for example in relation to aerial spraying criteria which would be used in granting or withholding applications were not given. On every controversial point the Minister could say details did not matter because powers were available to cover all eventualities.

Dr Clark said that the Parliamentary Secretary had promised detailed answers to a number or questions asked in second reading, but they had not had replies.

Mr Skeet said regulations relating to the PSPS ought to be known and published in exact form. Mrs Fenner replied that there would be no regulations with respect to the PSPS. To simply follow the PSPS would mean that they did not admit that pressures existed. Consultation would be meaningless and insincere if regulations were published before them. The parliamentary debates would be considered part of the consultation.

8. The Contemporary Debate: Administrative Phase

This chapter covers the debate surrounding policy development, after the passage of FEPA, during the period when the main set of regulations was being drawn up, from 16 July 1985 to 6 October 1986.

On 4 September 1985 a commencement order was made which would bring the Food And Environment Protection Act into operation the next day (MAFF, 1985d). On September 30 an order establishing the ACP as a statutory advisory committee (MAFF, 1985e), and regulations concerning the terms of office of ACP members (MAFF, 1985f) were made, both of which were to come into operation on October 31. Under the latter the ACP's independent members had to sign a declaration that they had no financial involvement with pesticides interests. On 4 November 1985, the Government issued the consultative document which would form the basis of the regulations (MAFF, 1985g) implementing the FEPA. The official consultation period ended on 31 December 1985, and discussions with interested parties continued for a further two months.

The House of Commons Agriculture Select Committee began its inquiry into pesticides and human health on 27 February 1986, initially considering the pesticide registration and approval systems including confidentiality of data and comparing the UK's registration requirements with those in Europe and North America. The report of the inquiry was not published until 27 May 1987. However, while the report itself could not influence the regulations, the evidence given by witnesses in the first session (which lasted up to 10th July 1986) was available to policy makers. In March 1986 the ACAS closed to new applicants (MAFF, 1988). In April 1986 the first annual report of the ACP was published, relating to the year 1984 (MAFF, 1986b); and in preparation for the regulations, the level of registration known as limited clearance was withdrawn from use (MAFF, 1988).

The Draft Control of Pesticides Regulations were laid in Parliament for approval by resolution of each house on 3 July 1986 (MAFF, 1986c;d;e). On 16 July the House of Commons resolved that the draft regulations be approved by a vote of 219 to 128 (HC, 1986). On 25 July The Regulations were passed by the House of Lords (HL, 1986). The Control of Pesticides Regulations (SI 1986/1510) were made on the 29 August 1986.

The regulations imposed a blanket ban on activities unless (a) the product was approved; (b) conditions of approval had been met; (c) the activity was consented to and (d) conditions of consents had been met. The conditions which might be included in a consent to an activity were set out in 4 schedules, governing: sale, supply and storage; use (including training); advertisement; and aerial spraying.

In July 1986 a Draft Code of Practice on the Agricultural and Horticultural Use of Pesticides was issued, and the official consultation deadline given was 31 October (MAFF, 1986f). In August, a second draft code of practice was issued, dealing with the supply, sale and off-farm storage of agricultural pesticides, eventually to form the details supporting the regulations on distributors and contractors from 6 October 1986 (MAFF, 1986g). The consultation deadline was 14 November. On 3 October 1986 the proposed Advertisement Consent was circulated with a closing date for comments of 27 October.

The main body of the regulations was to come into operation on 6 October 1986, with certain others coming in respectively on 1 January 1987,[1] 1 July 1987[2] and 1 January 1988.[3]

The first two Consents were also published on this day: the first on sale, supply and storage; and the second on use, in the London and Edinburgh Gazettes (MAFF, 1986h), together with conditions on the Consents. The Advertisement Consent was published later than the period covered by this chapter, on 21 November 1986. Most of the conditions took effect immediately, but others were spread over 1987 - 1989. Statutory arrangements for the disclosure of pesticide safety data to the public also took effect on 6 October, although the first evaluations for release to the public would not be available immediately. Figure 8.1 summarises key dates in this phase.

8.1 Debate and Decision in Substantive Policy Development

8.1.1 Broad Policy Objectives

By this stage, the broad policy objectives had been established. The Consultative Document represented the Government's detailed policy proposals, which are described in the following sections.

8.1.2 Products Subject to Approval and the Case of Identical Imports

Products Subject to Approval. The Consultative Document, like the Bill, defined a pesticide broadly, "...to encompass the whole range of products which Ministers may wish to control over the life span of the legislation". A pesticide was any substance, preparation or organism used for (a) protecting plants or wood or other plant products from harmful organisms; (b) regulating the growth of plants; (c) giving protection against harmful creatures; (d) rendering such creatures harmless; (e) controlling organisms with harmful or unwanted effects on water systems, buildings or other structures, or on manufactured products; and (f) protecting animals against ectoparasites.[4] Some of these would be temporarily excluded from regulations, like

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1 Regulation 4(1): Prohibition on advertising unless certain conditions were met.

2 Regulation 3(3): application of regulations to marine anti-fouling paints.

3 Regulation 4(5)(b)(i): a ban on pesticide *use* unless certain conditions were met.

4 Consultative Document: Paragraph 2.1.

Figure 8.1: Administrative Phase Chronology (1985 - 1986)

AUG

SEP 5 *FEPA 1985 (Commencement No.1.) Order 1985.*
SEP 30 *Advisory Committee on Pesticides Order.*
SEP 30 *Control of Pesticides (ACP)(Terms of Office) Regulations 1985.*

OCT 31 Consultative Document on FEPA implementation.

DEC 31 Official last date for written responses to Consultative Document.

FEB 27 Agriculture Select Committee pesticides inquiry starts.
FEB 28 Official last date for meetings about Consultative Document.

MAR ACAS closes to new applications.
MAR *Limited Clearance withdrawn.*

APR *Publication of ACP's first Annual Report.*

JUL Draft COPR laid, debated and approved by Parliament.
JUL Agriculture Select Committee pesticides inquiry ends.
JUL Draft COP on Pesticides Use.

AUG Draft COP on Pesticides Supply Storage and Sale.
AUG Draft Data Requirements published in working document form.
AUG *Control of Pesticides Regulations 1986.*

OCT 3 Draft Advertisement Consent circulated.
OCT 6 *Bulk of regulations come into force.*
Consents on supply, sale and storage; and on use published.

organisms which were not bacteria, protozoa, fungi and viruses; materials controlled by other legislation; materials disinfecting other materials; substances being tested for pesticidal activity in the laboratory or being used in any manufacturing process; pesticides used in any decorative paints, textiles, paints and paper; and pesticides intended solely for export.[5] These exclusions had the effect of restricting controls only to those products already covered by the PSPS, plus chemosterilants and anti-fouling agents.[6] Chemosterilants legally fell within the definitions of both medicinal products under the Medicines Act 1968 and pesticides in the proposed regulations. Since they were designed for use as pesticides they would be subject to FEPA regulations and exempted from Medicines Act regulations.[7] COPA controls on organo-tin-containing marine anti-fouling paints were to come in on 1 January 1986, but in order to bring the marketing of new anti-fouling paints and compounds under the same degree of control as pesticides generally, FEPA regulations would be added. This was "...logical in terms of environmental safety, will allow a wider range of biocidal agents to be controlled, and will make good use of the procedures and committee structures developed for controlling pesticides".[8] ENDS (1985b) noted that four months previously the DoE had invited the paint industry to cooperate in a new voluntary screening procedure for all new anti-fouling paints, but there had been no hint of a decision to include these in the pesticides regulations then, which move now signified notice to the industry to participate fully in the voluntary scheme.

FoE felt that the exclusions unjustifiably narrowed the scope, providing grey areas which would not be catered for in regulations.[9] AAWNTG thought likewise, especially with respect to exports which should be regulated and subject to prior informed consent.[10]

The BWPA still felt the inclusion of wood preservatives unfortunate, as many of the control details were inapplicable to them. For example the efficacy data requirements were irrelevant.[11] PHIPCO likewise noted the agricultural bias in the data requirements and that public health and industrial needs were almost ignored.[12] The Consumer's Association still noted a lack of clarity over whether the efficacy data requirement applied to garden pesticides: none of these had previously been efficacy tested and the implications for gardeners should be considered.[13][14] The BPCA said that

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5 Consultative Document: Paragraph 2.2.
6 Consultative Document: Paragraph 2.4.
7 Consultative Document: Paragraph 2.4.
8 Consultative Document: Paragraph 2.5.
9 Response to CD, FoE, 30/12/85.
10 Response to CD, AAWNTG, 19/12/85.
11 Interview, BWPA, London 29/1/86.
12 Response to CD, PHIPCO, 30/12/85.
13 Interview, CA, London 27/2/86.
14 Response to CD, CA, 9/1/86.

"The Consultative Document had about 60 pages - 2 dealt with us and 60 with agrochemicals...it's better than the proposals where the Government didn't deal with public health and hygiene at all. But I still feel it's agriculturally based".[15]

In the section on enforcement, the Consultative Document stated that "Users of agricultural pesticides are likely to be more numerous than those in other sectors covered by regulations". According to the BPCA this overlooked the fact that more than 85% of sites on which pesticide spraying took place were non-agricultural.[16] "There *are* more pesticides used on farms, but we use more *sites* than farmers."[17] The NSCA worried that the situations in which public health pesticides were used were such that the general public were more likely to come into contact with these pesticides than with those used on farms.[18]

UKASTA were:

> "...worried about specialist sectors - things like treating warehouses, seed treatment, animal husbandry are all different and have their own special problems. The Consultative Document may not be covering them adequately. All grain merchants, for example, use pesticides on their own premises for pest control, as well as selling them - we need different regulations to cover this".[19]

There would be repercussions for non-agrochemical sectors from the controls on containers. The Consultative Document noted that containers would have to be approved and it would be a criminal offence to supply a pesticide in any other container, thus stopping the practice of decanting.[20] The BPCA noted that this provision would seriously affect the Pest Control industry and its method of working. It was usual for pest control companies to prepare sufficient rodenticide and insecticide to enable their operators to carry out the day's work in hand and issue it to operators in suitably marked containers. Otherwise operators had to carry more product than desirable into their vehicles or customers' premises.[21] "If this becomes illegal it will make the job quite impossible. I think MAFF will have to give us a dispensation for this. MAFF don't understand. There are servicing companies - men come in in the morning and are given a quota".[22] BWPA would have similar problems but highlighted them in relation to labelling: "The labelling requirements are not akin to anything BWPA members have used previously. The procedure is different. Chemicals are concentrated then diluted on site - this is not taken account of."[23] The Consultative

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15 Interview, BPCA, London 17/2/86.
16 Response to CD, BPCA, 30/12/85.
17 Interview, BPCA, London 17/2/86.
18 Response to CD, NSCA, 20/12/85.
19 Interview, UKASTA, London 28/1/86.
20 Consultative Document: Paragraphs 5.7-5.10.
21 Response to CD, BPCA, 30/12/85.
22 Interview, BPCA, London 17/2/86.
23 Interview, BWPA, London 20/1/86.

Document did mention however, that the need for a statutory code of practice for use in wood preservation, public health and industrial pest control would be the subject of further discussions.[24]

There was no debate in Parliament on this subject, and when the Regulations came out, Regulation 3 covered the pesticides to be controlled from 6 October 1986. The scope was unchanged from the Consultative Document. Pesticides covered were the same as those covered by the PSPS, except that from July 1987 the scope would be expanded to include antifouling paints. The 6 October Consents did not mention scope, as they were concerned with general classes of activity related to pesticides, and not specific approvals.

Identical Imports. The Consultative Document noted that rapid clearance applications were to be made to the technical secretariat, who would make recommendations to Ministers without recourse to the ACP or SSC.[25] The Government had undertaken to the EC that rapid clearance would take only 6 weeks if products were of identical manufacture, company and purpose. This system had been introduced administratively and would not be covered by a formal regulation.

The BAA noted that the "rapid", "fast stream" and "off-label" applications would all be competing for the same resource with the normal requests for approvals. This combined with a substantial volume of products seeking to upgrade to full approval by efficacy data provision, would lead to an overload of the approval resource and delays.[26]

FoE warned that although identical imports should go rapidly through the secretariat procedure, *similar* products should not, since there might be significant differences as regarded toxicity and environmental impact.[27] AANNTG thought the trend towards quick clearing schemes worrying: with regard to "fast stream" and "rapid" approval of identical products there was an obvious need for clear rules and procedures.[28]

The BAA and BASIS on the other hand wanted to be sure products really were identical.[29][30] The BAA said:

> "Identicality is important: you can argue that even if it is the same chemical it could be a different process - or the purpose or formulation could be different - and there could be potential hazards to wildlife and the environment. Unfortunately it is still open house to go to Taiwan and pick up something, say it is identical, and place it for registration."[31]

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24 Consultative Document: Paragraph 7.3.
25 Consultative Document: Paragraph 4.18.
26 Response to CD, BAA, 30/12/85.
27 Response to CD, FoE, 30/12/85.
28 Response to CD, AAWNTG, 19/12/85.
29 Interview, BAA, Peterborough 29/1/88.
30 Interview, BASIS, London 27/1/88.
31 Interview, BAA, Peterborough 29/1/88.

Regulations 4(2) and 4(3) prohibited the sale and supply of a pesticide unless it had been approved (under Regulation 5) and a consent to the activity had been made (under Regulation 6(b)) and any conditions of approval and conditions of consent to an activity had been complied with. Conditions could be added at any time.

Regulation 7 related to the seizure and disposal of pesticides, and 7(2) said that "...if any pesticide had been imported into the United Kingdom in contravention of any of the specified prohibitions or of a condition of any approval or of any consent, either of the Ministers may require that it shall be removed out of the United Kingdom". There was no debate on these regulations in Parliament, and they would be amongst the first to come into force, on October 6th 1986.

The Draft Data Requirements (MAFF 1986i) noted the procedure for identical imports applications for approval (see Appendix 8.1a),[32] and the guidance on information needed (see Appendix 8.1b).[33]

8.1.3 Conditions Applied to Pesticides in the Approvals Process

Efficacy Data Requirements. The Consultative Document outlined that anyone seeking approval for a pesticide product would have to produce information demonstrating that it would be safe, efficacious and humane. Guidance would be issued on requirements from time to time.[34] Under the PSPS, safety information was required (see Appendix 8.2), and the statutory requirements for safety data would not differ substantially from those hitherto applied under the PSPS.[35] At this stage humaneness data had not been specified, and indeed humaneness was not defined. Humaneness would however be a new requirement for products used against vertebrate pests.[36] Appendix 8.3 gives the suggested aspects of vertebrate behaviour to be considered when assessing humaneness contained in the document. A brief examination of evidence on safety requirements and humaneness is given here before going on in more detail to examine evidence on efficacy requirements.

FoE wanted safety and efficacy functions kept separate so as to reduce "...the clear conflict between commercial considerations and the hazard aspects involved in the production of pesticides". On safety data, they thought requirements should be expanded to include long-term studies of low-level exposure and toxicological data from other countries, like the US and Sweden.[37] The AAWNTG[38] added that further details were needed to ascertain that safety data requirements would not give less protection than the Notification of New Substances Regulations 1982, and codes of practice under them. The London Food Commission also wanted separate safety and

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32 Draft Data Requirements, Introduction IV: 35-39.

33 Draft Data Requirements: Appendix 3.

34 Consultative Document: Paragraph 4.3.

35 Consultative Document: Paragraph 4.4.

36 Consultative Document: Paragraph 4.11.

37 Response to CD, FoE, 30/12/85.

38 Response to CD, AAWNTG, 19/12/85.

efficacy assessment by transferring assessment to the HSE, saying that a single committee for both raised concerns that health considerations would be compromised by their agronomic implications. The protection of public health should be MAFF's major objective. Safety testing should be carried out under the direction of the ACP because of lax standards of commercial toxicity testing. The testing should be paid for by the industry. The Ministry should be able to initiate clearance applications and provide toxicological data for novel application methods which reduced pesticide usage, again paid for by the industry, because if it was left to manufacturers these methods would be slow to be introduced and limited to major crops.[39] The RSPB thought present PSPS safety data requirements inadequate for determining safety and wildlife impact. "Agriculture, horticulture and forestry" should not be considered a single field of use because there were forestry products like bio-control agents not suitable for agriculture and horticulture. Experimental data should be derived from named vertebrate species (including birds) representing those the product may affect, for example sparrows and starlings instead of chicks and ducklings. Greater attention should be given to pesticide specificity, for example to target insects, target plants, and to the degree of insecticidal activity for herbicides and fungicides.[40] The RSNC wanted a test on volatility under field conditions included; and data on wildlife hazards to include any harmful effects on wild plants.[41]

As concerned humaneness, the BPCA worried that "...something will have to be done about humaneness. The industry needs all the assistance it can get to combat rodent infestation. I'm worried that in the CD there is a lot of reference to proving humaneness. I don't know how MAFF are going to do this".[42] By contrast, for the BAA "There's no humaneness burden in agrochemicals".[43]

The efficacy data requirements would, according to MAFF, be a "...new area for UK pesticide control". The efficacy criteria were to be based on the internationally accepted definition of efficacy as the ability of a pesticide product to fulfil adequately the claims made for it on the (proposed) label. To obviate the risk of unreasonably low performance label claims pesticides would be subject to a minimum efficacy standard, in that the use of the product would be required to give a consistent, well-defined benefit.

> "The Government has noted that in the wood preservation field and in certain other areas of use, the product label is not seen by the purchaser of the treated material or service. In these circumstances the test of efficacy may need to be related to advertised claims or public expectation".[44]

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39 Response to CD, AAWNTG, 18/12/85.

40 Response to CD, RSPB, 30/12/85.

41 Response to CD, RSNC, 18/12/85.

42 Interview, BPCA, London 17/2/86.

43 Interview, BAA, Peterborough 29/1/88.

44 Consultative Document: Paragraph 4.5.

The burden of the efficacy requirement was felt especially by producers of non-agricultural chemicals. The BPCA argued that the consumer should be able to decide efficacy in the field: "If someone produces a non-effective pesticide, no-one will buy it a second time anyway, but we will have to spend a lot more money in proving efficacy. It could be good for some people - jobs for the boys in the Ministry".[45] They objected to the principle of comparative efficacy. Approval should not be refused or withdrawn simply because a more efficacious product was claimed to exist. There was a lack of efficacy expertise in MAFF for public health and other products. These products were not registered under ACAS and companies had developed the required expertise. The extra finances to be raised by these companies were unnecessary and unjustifiable.[46] The AEA said that "The Ministry says they don't want people to spend money on a chemical that isn't any good. I said to them [in response] it's none of their business determining this - they don't make any effort to tell people not to buy sweets because they are not effective nutrients!".[47] The BWPA suggested [in response] that MAFF contact the Princes Risborough laboratories which determine efficacy standards for wood preservatives: "MAFF seem to have skipped this entirely because they don't appreciate the difference between agrochemicals and wood preservatives".[48]

The Consumers Association noted that claims for many garden chemicals could lead the gardener to expect them to be 100% efficient, that is to kill all pests. Home gardeners had higher expectations yet used weaker, less effective formulations. They had evidence of pesticides which were ineffective for their intended uses. Guidelines on claims and efficacy criteria were needed for garden chemicals.[49]

Efficacy was to be related to the individual formulation, recommendations for use and label claims, and rate, method and time of application. Efficacy would not necessarily imply high absolute levels of effectiveness in control of a "pest". A product with only modest activity or claims may have offsetting advantages, for example less effect on non-target organisms. There would often be reasons why a range of products with differing levels of effectiveness would be acceptable, so minimum absolute levels of effectiveness would not be set and there would be no requirement for performance to match that of a standard reference product. Guidance on the provision of efficacy data would need to be discussed in depth with interested parties.[50]

The RSPB endorsed the decisions not to define minimum absolute levels of control, and not to make efficacy the overriding consideration. From the conservation viewpoint a product of modest activity with less affect on non-target organisms was clearly of advantage to a non-target species which might, in turn, be a source of food

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45 Interview, BPCA, London 17/2/86.

46 Response to CD, BPCA, 30/12/85.

47 Interview, AEA, London 10/2/86.

48 Interview, BWPA, London 20.1.86.

49 Response to CD, CA, 9/1/86.

50 Consultative Document: Paragraph 4.6.

for other wildlife.[51]

Certain principles would be applied: evidence would have to be obtained by scientific/technical observation and measurement. This could arise from planned trials, but results of practical use would often be an essential part of product evaluation. Lack of complaints, customer testimonials and anecdotal evidence would not be acceptable.[52] Factors on which evidence could be required for evaluation is given in Appendix 8.4.[53] Evidence generated in other countries could be acceptable if considered relevant to UK conditions, as could evidence from a related use, crop or pest in comparable conditions.[54] Efficacy data would normally only be required after the trials permit stage.[55]

The BAA noted that detailed guidelines were urgently needed so that products could be advanced for approval without delay. There was a lack of efficacy expertise in, for example, industrial, public health and the domestic garden market, and guidance on efficacy data would need to be discussed with interested parties. If all products currently sold for garden use required efficacy testing it was doubtful the system could cope. They expected a "turn-around" time of 12 weeks, now that a fee was to be charged. Definitions of "minimum efficacy standard" and "consistent well-defined benefit" were needed, and discussions were required to ensure that the proposals were workable.[56] UKASTA also focussed on the resources for processing applications: "...how does a small team cope with upgrading 3000 products in a 12-month period even assuming the manufacturers have got all their material together? The process will have to be phased".[57]

The CA thought that if the efficacy criteria were applied to home and garden chemicals, a "well defined benefit" would be difficult to quantify. Criteria specific to these areas were needed. Would approval be granted on the basis of agricultural or horticultural formulation tests?; would differences in application techniques be accounted for, for example the watering can or aerosol spray?[58] The RSPB welcomed the collection of efficacy data through scientific/technical observation and measurement, and hoped that evidence of impacts on wildlife gained in other countries would also be admitted.[59] The Soil Association noted that "could include" meant many of the factors would not be taken into account in practice, so a list of factors *always* important enough to be included was required. Important factors were left out and definite examples should be given, for example with (ii) (information about persistence

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51 Response to CD, RSPB, 30/12/85.

52 Consultative Document: Paragraph 4.7.

53 Consultative Document: Paragraph 4.8.

54 Consultative Document: Paragraph 4.9.

55 Consultative Document: Paragraph 4.10.

56 Response to CD, BAA, 30/12/85.

57 Interview (paraphrase of Response to CD), UKASTA, London 28/1/86.

58 Response to CD, CA, 9/1/86.

59 Response to CD, RSPB, 30/12/85.

in plants and soil) and (vi) (assessment of spray drift potential and volatility). The guidelines should be more detailed and comprehensive.[60]

As a result of introducing a requirement for statutory evidence of efficacy, the ACAS scheme would be terminated on 30 April 1986, and applications for approval would not be accepted after 31 January 1986. The ACAS "approved products" book would no longer be published, and manufacturers were invited to re-register approved uses so as to qualify for full Approval under the regulations.[61] Such re-registration would be allowed up to 31 January 1986 for products with ACAS approval in 1984/5, and products which had been approved during or since 1980 and had not had approval withdrawn.[62]

As regarded introductory arrangements, products already on the market would be regarded as approved, as would products with PSPS Commercial Clearance plus ACAS Approval or an appropriate BSI standard (for example some wood preservatives). Products with only PSPS Commercial or Provisional Commercial Clearance would be regarded as Provisionally Approved until further data were supplied. PSPS Trials or Limited Clearances would be valid until termination of the PSPS, provided other Government conditions already set were met, and any further applications would be considered under the new arrangements.[63]

The BAA wanted to know how products with some recommendations eligible for approval but some only for provisional approval would be treated; and what timescale would be allowed for cleared-only products to gain approval.[64] The BPCA said that the arrangements could cause a major problem for consumers. Many older pesticide formulations used by farmers, local authorities and pest control companies, such as warfarin, lindane, fenitrothion and pyrethrins would have to produce efficacy data. If the data were unreasonably expensive to produce, these products, often formulated by smaller companies, would disappear. This would concentrate power in the hands of the multinationals, limit consumer choice, and make pesticides more expensive. If new data were not supplied, and approvals lapsed, Certificates of Free Sale might not be issued, which would affect the export trade of smaller formulators.[65] FoE felt that products already on the market should be re-tested so that products without ACAS approval would not be assumed to be approved.[66] The Consumer's Association noted that home garden chemicals were only PSPS cleared so would be regarded as provisionally approved. As gardeners should have as wide a choice of chemicals as possible, they worried that providing efficacy data for full approval of garden products

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60 Response to CD, SA, 30/11/85.

61 Consultative Document: Paragraph 4.49.

62 Consultative Document: Paragraph 4.50.

63 Consultative Document: Paragraph 4.27.

64 Response to CD, BAA, 30/12/85.

65 Response to CD, BPCA, 30/12/85.

66 Response to CD, FoE, 30/12/85.

would be regarded as a low priority by manufacturers. Manufacturers should therefore be encouraged and helped to obtain full clearance for these chemicals.[67] The NSCA regretted the "deemed to be approved" clause and wanted a five-year deadline for review of existing products with PSPS clearance only.[68] The RSPB were not satisfied that all chemicals in use were safe for wildlife such that the introductory arrangements would lead to unsatisfactory chemicals receiving approval.[69] The RSNC wanted information on effects on wildlife to be made specific, including references to indirect effects like secondary poisoning through the food chain.[70]

Regulation 5 took powers to give approval in relation to a pesticide (as well as to authorise use, supply, storage, sale and advertisement of a pesticide; to place and amend conditions on an approval; and to review, revoke or suspend an approval). The regulation did not deal with those aspects of the new arrangements such as efficacy and other information requirements on notifiers of new products, which were to be settled by administrative arrangements separately but to the same timetable. PRSD would be doing much of this work with the SSC. The SSC would continue to assess technical data and advise on the extent and type of test data needed to judge safety and efficacy. A working group to the ACP which was already in existence, was to be constituted formally under the new controls.[71] This was the Medical and Toxicological Panel, which would advise on the impact of pesticides on human health, and on toxicological test methods. There were calls from sectional interests for certain expertise and for their own organisation to be represented in these bodies (see section 8.4).

New approvals and conditions were to be published in the Gazettes as they arose.

The Draft Data Requirements (MAFF, 1986i) gave guidelines to be followed in submitting data for approval. Not all of the guidelines had to be followed, but this should be discussed as early as possible with the PRSD. New active ingredients were to follow the guidelines already mentioned (Appendix 8.2). The document expanded considerably on these requirements to 200 pages, with sections on toxicology, residues, wildlife and the environment, classification and labelling, and biological agents classed as pesticides. Efficacy requirements were separated into two groups: pesticides for agriculture, horticulture, home and garden, food storage, animal husbandry, and herbicides used on industrial sites and in or near water; and pesticides for public hygiene, household, wood preserving, and masonry biocides. The ratio of pages devoted to each was 50:3. More detailed guidance on humaneness data was not given in this document.

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67 Response to CD, CA, 9/1/86.

68 Response to CD, NSCA, 20/12/85.

69 Response to CD, RSPB, 30/12/85.

70 Response to CD, RSNC, 18/11/85.

71 Consultative Document: Chapter 3.

Applications for approval would also come in from manufacturers, for use extensions, and from users, for identical imports, minor uses and tank mixes. The Committees (ACP and SSC) would be involved in new active ingredient applications; PRSD in such things as extensions of use, off-label approvals and tank mixes; and PICD in identical products intended for use by the importer. Access to the approvals procedure was therefore being afforded to the user, and new data would not have to be supplied.

In October, after the end of the period which this chapter covers, MAFF was having to contend with the loss of experienced officials who were being poached by pesticide manufacturers to help them with their extra work-loads under FEPA (ENDS, 1986). The requirement for efficacy data and fees came in on October 6, and so a whole year's worth of applications arrived at PRSD on 30 September. Nevertheless PRSD did not advertise for 6 new recruits until April 1987.[72]

Also in October, a complete list of products approved was published (MAFF 1986j). Over the next few years details of approved uses were to be added, including off label uses, until this volume comprised a full "compendium of approvals".

On 21 November 1986 the first two new approvals announcements were made in the Gazettes. The entries were very short, and gave the product, approval number, approval holder, area of use, type of pesticide, crop to be used on, and "special conditions" including the batch numbers the approval related to.

On 28 November there was an announcement of changes to approvals and a full review of Captafol: all approvals were to become provisional, with an expiry date of 31 October 1987; approvals for use on strawberries and leeks and for aerial spraying were withdrawn; approvals for use on cereal crops were to be made conditional on there being no application after the ear had emerged. A full review was to be undertaken, for completion by 31 October 1987, and anyone wishing to contribute data were to make sure it reached PRSD by 31 December 1986. Also on 28 November a partial review (toxicological) of Captan and Folpet was announced.

Information Disclosure. In August 1985 the DoE issued a discussion paper on information disclosure (DoE, 1985), and in April 1986 they followed it with a report on Public Access to Environmental Information (DoE, 1986).

The CD noted that Paragraph 9 of the PSPS undertook that data submitted for approval would be treated as confidential and would not be used "...without the notifier's consent except in connection with the notification to which it relates".[73] The RCEP had criticized the "refusal to release information on grounds of confidentiality" in that it "tends to become a reflex action", and this had:

> "...led Government on occasion to refuse to give any information at all about the safety characteristics of a product when the rule might more reasonably be

[72] Interview, DTI, London 11/11/87.

[73] Consultative Document: Paragraph 8.2.

used to apply to the raw data, and on other occasions to publish detailed analyses of the characteristics of a product to meet public concern about it".[74]

With the acceptance of the "guiding principles" of the RCEP that there should be "a presumption in favour of unrestricted access for the public to information which the pollution control authorities obtain or licence by virtue of their statutory powers", there would accordingly be no attempt to carry over Paragraph 9 of the PSPS into the legislation or to introduce the standard clause which makes it an offence for a public servant to disclose any information received in his administration of the legislation.[75]

As well as publishing new approvals and amendments in the London and Edinburgh Gazettes, a compendium of approvals, annual ACP reports, usage data, WPPR reports, WIIS reports and incidents reports, there were proposals for (a) publication of a Safety, Efficacy and Humaneness Data Evaluation and (b) access to raw data, of interest here.

A full evaluation of a product would be made publicly available when it achieved provisional approval. It would be based on the evaluation document currently prepared by the SSC when it considered its recommendation to the ACP,[76] but revised to take into account the further SSC and ACP debates; additional data which may have been called for; any changed views as a result of the latter; and still further outstanding studies, which was the information the ACP had before it at the point of making its recommendation to Ministers.[77]

The BAA noted that these proposals went "...far beyond what was tabled and agreed in the discussion between us on the 'PRD Publication'"[78] (see Appendix 8.5). There was still a lack of understanding of the nature of the industrial property companies sought to protect. It was not possible to patent all the elements which made up intellectual property.[79] The proposals went beyond what was done in most other countries and were substantially more comprehensive than had been discussed. The BAA suggested reverting to the "Draft PRD Publication". The draft was consistent with what was acceptable elsewhere, for example in Canada, where it was actually written by the submitting company and approved/edited by the regulatory authority. If the "Draft PRD Publication" was still proposed to be replaced, the BAA would expect similar opportunities to discuss the intended replacement. They also expected that companies would see and comment on proposed publications.[80] The BPCA had no objection provided the information was "...scientifically presented. References to tests

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74 Consultative Document: Paragraph 8.3.

75 Consultative Document: Paragraph 8.4.

76 Consultative Document: Paragraph 8.7.

77 Consultative Document: Paragraph 8.8.

78 Response to CD, BAA, 30/12/85.

79 Covering Letter to Response, BAA, 30/12/85.

80 Response to CD, BAA, 30/12/85.

on animals should be avoided".[81] FoE welcomed the release of the data.[82] AAWNTG wanted clarification on what was meant by "full evaluation" as regarded information disclosure, and an assurance that the list of information would be comprehensively followed in every case of information request.[83]

Commercial interests were to be protected in two ways:

> "First, through a discussion with the notifier of the presentation of the formulation details so that enough is included for the purpose of the product to be understood, but not so much that any valuable process secrets are revealed; second, through a continued requirement on notifiers of competing or duplicate products to present either their own data, or evidence of an agreement that they have the owner's authority to use the data already on file. The ACP's evaluation will *not* be accepted as the basis of approval for competing products".[84]

The BAA noted that those submitting data should be required to affirm that they actually owned the data and should warrant that they had not knowingly infringed patents in gaining it, because even where UK patents could be obtained, worldwide protection for the company would be lacking, due to countries having no, limited or short patents and no intellectual property rights. Their concern was to minimise the harm that might be done to export markets for UK products. The need for protection extended beyond "formulation details". They were worried that the ACP's evaluation could be used to approve pesticides in other countries.[85]

The Government would not generally allow access to the raw data (study reports) obtained by virtue of their statutory powers, believing that the full evaluation provided the information most enquirers would need, and that this would keep problems of commercial confidentiality to a minimum.[86] However departments would exceptionally agree to give access to raw data if the SSC viewed an application as scientifically justified, provided an undertaking (which would be enforceable) to respect confidentiality and preclude commercial use was given by the researcher.[87]

The BAA said that discussion and clarification was necessary on (a) establishing the good faith of the researcher seeking access; (b) the method by which "commercially sensitive" information would be withheld/protected; (c) the means by which publication of opinions based on access to the data might be constrained; (d) the procedures for informing companies of the access request and grounds for it; (e) the necessity to ensure "raw data" were accompanied by evaluations so that they were not misleading; (f) the need for Departments to act together in affording access; (g) the

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81 Response to CD, BPCA, 30/12/85.

82 Response to CD, FoE, 30/12/85.

83 Response to CD, AAWNTG, 19/12/85.

84 Consultative Document: Paragraph 8.9.

85 Response to CD, BAA, 30/12/85.

86 Consultative Document: Paragraph 8.10.

87 Consultative Document: Paragraph 8.11.

method by which access would actually take place; and (h) the need for clarification of what was meant by "raw data (study reports)", since this might imply access to company overviews, ancillary material and linkage with such areas as metabolism and residues.[88] FoE welcomed access to raw data but not to its release in "exceptional" circumstances and at MAFF's discretion. It wanted automatic full disclosure, avoiding half measures which would reassure neither the public nor the industry. This was reasonable as there were adequate safeguards against information pirating.[89] AAWNTG wanted to know the basis on which the ACP would decide "scientific justification" for access to raw data. There should be a simple and accessible appeal procedure laid down in detail.[90]

The CFoI considered only exceptional access to studies unnecessarily restrictive and an impediment to legitimate enquiry and debate about pesticide safety. As the Government no longer accepted that commercial considerations presented an insuperable obstacle to its release it was surprising that it would normally be withheld. As access would be discretionary, legitimate requests would be refused. As the SSC was responsible for many of the evaluations which could be challenged or criticised it was inappropriate that they should have the discretion to refuse applications for access. The SSC would be deciding on the "scientific justification" of its critics' arguments. Access to full studies would frequently be necessary, as scientific disagreements on issues of pesticide safety were common, not exceptional: many competent authorities had reached different decisions to those of the ACP on the same pesticides. In addition, access would not only be sought with a view to serious challenge of manufacturers testing or an official decision: it might be sought when a group attempted to advise an individual reporting an ill-effect on whether it was likely to have been caused by a particular pesticide. Evaluations would often not be detailed enough for this.

If the Government feared time-consuming requests from incompetent researchers, the volume and complexity of the data would be quite sufficient to deter them. Enquirers should not be required to demonstrate a strong case for disputing a decision before being allowed access. British people could obtain information on pesticides from the US Government, and should be able to obtain such from their own Government. Another objection was that no information at all on the safety of pesticides now in use would be disclosed for at least a decade (when they would apparently be up for review) whereas most enquiries would relate to these. These restrictions were incompatible with the Government's stated policy of favouring "unrestricted" public access. The inevitable conclusion was either that the Government was not acting in good faith or that it lacked confidence that safety evaluations would

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88 Response to CD, BAA 30/12/85.

89 Response to CD, FoE, 30/12/85.

90 Response to CD, AAWNTG, 19/12/85.

withstand scrutiny.[91] The CA, Wildlife Link and the RSNC were likewise disappointed at the discretionary and exceptional limits to disclosure: it should be exceptional to refuse a request, not to grant it.[92][93][94] The RSPB said it was prepared to accept the limits on access to raw data provided (a) the evaluations were adequate to make scientific judgements on, and (b) the raw data were available to the NCC and ITE officers in the normal course of their duties (where confidentiality was protected by the Official Secrets Act).[95] The Soil Association said that to restrict access to the raw data at the same time as admitting there was debate between SSC and ACP was to deny access to data which might have led the ACP to nearly ban a pesticide, so denying experts a chance to decide whether the ACP made the right choice.[96]

Regulation 8 said that (1) "Ministers may, at the request of any person, make available to him for inspection, on such conditions as they may determine, an evaluation..."; and (2) "If a person satisfies the Ministers that an evaluation made available to him for inspection...gives insufficient information for his purposes, the Ministers may make available for his inspection, at such times and on such conditions as may be determined by the Minister, the study reports (or other data) supplied in support of an application for the approval". It went on to allow for (3) fees for data and (4) prohibition of commercial use or publication (without Ministerial authorization) of the data. Further conditions laying out specific arrangements for the release and protection of data would be decided administratively.

There was no debate in Parliament over and above previous evidence given.

After the end of the period covered in this chapter, on 3 February 1987, it was announced that the first evaluations for disclosure would shortly be available. A description of disclosure details and safeguards was circulated (MAFF 1987; see Appendix 8.6).

Fees. On 16 July a new deregulatory White Paper was published (DTI, 1985) which would remove burdens imposed by planning, tax, health and safety and other rules from small and medium sized businesses (thereby encouraging development and creating jobs). In it the Government had plans to set up a new system to assess the compliance costs of legislative proposals - with the aim of stemming the flow of new regulations. Officials in each department were to conduct these assessments, coordinated by a central task force in Cabinet Office.

Also in it was a single paragraph on pollution control policy: development should be allowed to proceed without onerous conditions where it was uncertain that environmental problems would occur. "If subsequently there are shown to be serious

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91 Response to CD, CFoI, 2/1/86.

92 Response to CD, CA, 9/1/86.

93 Response to CD, Wildlife Link, 24/1/86.

94 Response to CD, RSNC, 18/11/85.

95 Response to CD, RSPB, 30/12/85.

96 Response to CD, SA, 30/11/85.

environmental problems, the local authority could take action against nuisance under the public health and control of pollution legislation". According to ENDS (1985c) this sentence explained the DoE's failure to issue promised proposals to give local authorities anticipatory control powers for non-combustion industrial processes which cause air pollution. It looked like reactive statutory nuisance legislation would apply.

The deregulation drive could affect EC environmental policy. A paper sent to the EC, drawn up in consultation with the CBI, the Institute Of Directors and Chambers of Commerce (attempting to influence EC proposals on deregulation to be presented to the European Council) suggested scrapping or amending several proposed or existing directives in the environmental and workplace safety fields (ENDS, 1985c).

The CD noted that the Act enabled the charging of fees and that principles would be settled by Ministers with the consent of the Treasury after consultation with representative organisations (BAA, BPCA, BWPA and NFU). The Minister could (a) charge an *applicant* a fee for the administrative expenses of processing the application for approval as well as a fee towards the cost of carrying out any examinations and tests to enable a decision on an approval; and (b) charge fees to such persons as he considered appropriate from time to time in respect of collection and processing of information (for example pesticide usage surveys and formulation monitoring), and of monitoring the effects of pesticide use (for example residue and wildlife incident surveillance). The document noted that "The Government considers that such persons should be the holders of approvals".[97]

The BAA believed that the fee charged for an approval should reflect the costs of processing, but suggested a graduated scale of charges commensurate with processing demands: higher for a new active ingredient, but less for formulation changes, or reviewing or upgrading a provisional approval. They were however concerned at the prospect of Ministers carrying out tests at the expense of the notifying company, possibly implying double testing, and raising the question of data ownership.[98] If data were generated by laboratories conforming to Good Laboratory Practice, whence arose the need to carry out work elsewhere? If extra work was required the company should do it so data ownership complications did not arise. On the levy for monitoring they questioned how much they should pay towards what was considered a Government responsibility for the public benefit. This activity could be open-ended, and the ACP/SSC should have a role in endorsing survey and monitoring work.[99] The BPCA's response generally concurred with this, and they worried that the provision would be an open cheque to any Minister seeking to justify work at laboratories threatened with cut-backs.[100] The RSNC welcomed fees for monitoring and surveillance.[101]

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97 Consultative Document: Paragraph 4.43.

98 Covering Letter to Response, BAA, 30/12/85.

99 Response to CD, BAA, 30/12/85.

100 Response to CD, BPCA, 30/12/85.

101 Response to CD, RSNC, 18/12/85.

In considering the level and structure of reasonable fees:

> "...the Government has been mindful of the need to recoup reasonable costs without placing an undue burden on industry, and in particular on the smaller companies. For this reason the possibility of a flat rate charge per approval is not favoured on the grounds that it would place an unfair burden on companies with smaller turnovers and might discourage pesticide development".

Two types of fees were proposed (a) a standard charge at approval and (b) an annual charge based on a percentage of the annual domestic turnover of all approved and provisionally approved pesticides of the company concerned.[102] It was proposed that, taken together, the fees should recoup the total approval administration costs plus 50% of the costs of information collection and monitoring. The total cost would be of the order of £2.0 million. The standard charge would be about £1000. The annual charge to companies would be of the order of 0.4% of their UK turnover (based on £538 million domestic turnover for the UK pesticide industry).

The standard fee would be charged on all applications after bringing the regulations into force. The first annual charge would be based on the approval holders turnover in the 12 months commencing with that date.

The BAA considered that since fees were to be charged they would want to see applications dealt with in 3 months. They wanted an exact costing of the activities of approvals and monitoring. Fees charged for approvals should reflect actual costs incurred in processing each application. Regarding the turnover levy, the £538 million figure seemed too high, and double counting and inclusion of sales at different points in the distribution chain may have occurred. BAA members reported £345.9 million in 1984 and the difference was unlikely to be accounted for by non BAA member sales.[103] AAWNTG said that fees should be higher than simple "cost" on the principle that those who create a risk or potential risk should manage, and therefore pay, for it.[104] The RSPB noted that charging should apply to home manufacturers, foreign manufacturers and distributors of imported products.[105]

The regulations did not deal with new arrangements on the levying of fees, which were to be settled by administrative arrangements separately but to the same timetable.

After the period covered by this chapter, on 18 January 1989, the Pesticides (Fees and Enforcement) Bill was presented in the Houses of Parliament replacing the fees sections of FEPA with more specific provisions, presumably as a result of administrative experience and perhaps difficulties. It was passed (Cap 27) on 19 June. The Act empowered setting and charging fees specific to "the cost of handling and evaluating applications" in place of "in respect of the administrative expenses of

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[102] Consultative Document: Paragraph 4.45.

[103] Response to CD, BAA, 30/12/85.

[104] Response to CD, AAWNTG, 19/12/85.

[105] Response to CD, RSPB, 30/12/85.

processing". It also enabled requiring of payment in respect of the balance of any costs which had not been recovered as well as collecting and processing information and monitoring. Ministers would lawfully be able to use the revenues generated by the levy on turnover in order to meet the costs of evaluating applications before an approval had been given, as well as those arising after approval; and could lawfully use the same revenues to carry out tests considered necessary to determine whether an approval should be granted. The FEPA provision to consult with organisations and treasury about amounts was supplemented by provisions that payment could be calculated on turnover of a single pesticide or all approved pesticides held by one person; that Ministers could use any method to calculate payment if evidence of turnover had not been supplied; and that Ministers could permit phased, amended, set off, waived or refunded payments.

8.1.4 Conditions Applied to Pesticide Use Within the Approvals Process

Form of Controls on Use. As regarded labelling, just as the details of approval were outside the regulations, so the details of the labels, integral to approval, were not specified in regulations. Statutory items to be included on the label would be settled administratively.

The CD set out that under the PSPS, applicants seeking clearance were required to agree a label with the technical secretariat to ensure conformance with the Farm and Garden Chemicals Act 1967 (active ingredient to be stated on the label), the CPLDS Regulations 1984, the Poisonous Substances in Agriculture Regulations 1984 (protective clothing requirements on label) and ACP recommendations, and to ensure that uncleared uses were not being recommended.[106] This would continue under the new arrangements and it would be a condition of approval that a product was supplied only under the label agreed by Government. Any statutory conditions attached to an approval would have to be clearly stated. Pending revision of all labels, discussions with suppliers would agree a simple means of indicating which conditions on existing labels had become statutory requirements.[107] There was to be a new Labelling and Container Design Panel set up to advise the SSC, which would include sectional representation. It would advise on "problems arising from labelling", amongst other things.[108] There were great demands for representation on this Panel (see section 8.4).

The CD noted that from 1987 users would be required to comply with specific obligations (a) to use a pesticide only for its approved use as stated on the label or in published lists; (b) to observe any stated maximum application rates and minimum dilution rates; and (c) to observe other approval conditions relating to use, for example harvest intervals. From 1988 there would be an obligation to use only notified

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[106] Consultative Document: Paragraph 5.3.

[107] Consultative Document: Paragraph 5.4.

[108] Consultative Document: Chapter 3.

adjuvants and tank mixes. However guidance on the selection and use of alternative application techniques would be provided in a statutory code of practice on the agricultural and horticultural use of pesticides, as would guidance on good spraying practices and other information, drawn from existing guidance and other codes of practice such as the Code of Good Agricultural Practice under the COPA 1975.[109] "This combination of specific obligations and guidance in a code of practice is proposed in order to ensure that the effective control of use will not inhibit users from developing more efficient means of controlling pests, for example with lower dose rates or new application methods".[110] The tension was largely about whether labels or guidance would be used to control certain activities.

The relevant regulations were as follows. Regulation 4(5) stated that no person would use a pesticide unless the pesticide had been approved (under Regulation 5) and a consent to the activity had been made (under Regulation 6(c)).

Regulation 4(5)(b)(i) stated that no person would use a pesticide unless the conditions of approval relating to use had been complied with. This was the regulation which *could* include conditions on amounts to be used (like maximum dose rates and minimum dilution rates) and application methods, and would not come in until January 1 1988.

Regulation 4(5)(b)(ii) further stated that no person would use a pesticide unless the conditions of consents to an activity had been complied with. (From October 6th 1986).

Regulation 6(c)(i) consented to the use of pesticides by notice in the Gazettes, subject to conditions set out in Schedule 3 and any further conditions that might be specified by such a notice (From October 6th 1986).

Schedule 3(1) provided a general obligation on all users to take all reasonable precautions to protect the health of human beings, creatures and plants, and to safeguard the environment generally (from October 6th 1986).

Schedule 3(2) provided for controls on the mixing of two or more pesticides (from 1 January 1989).

Schedule 3(3) provided for controls on the use of pesticides with adjuvants (from 1 January 1989).

Conditions could be added at any time.

In the Commons debate (HC, 1986), Mrs Fenner said that adjuvants used to be cleared through the PSPS, but no longer fell within the definition of pesticide under the Act. The intention was for Harpenden to continue to evaluate adjuvants and publish a list suitable for use with approved pesticides. Users would be free to use any adjuvant on the label or in the MAFF list, provided there were no restrictions or counter-indications on the adjuvant label.

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[109] Consultative Document: Paragraph 7.5.

[110] Consultative Document: Paragraph 6.3.

In the Lords debate (HL, 1986), Lord Skelmersdale (C), for the Government, noted that a list of compatible chemicals for use in the same tank would be published by the Ministry so there would be no need to go into the intricacies of putting this information on the label.

It was proposed initially to prepare a statutory code of practice on the use of pesticides in agriculture. This code would be based on existing guidance to farmers in leaflets produced by the BCPC, the agriculture departments and the HSE. The draft code would be published for consultation after the regulations.[111]

The Draft Code of Practice (MAFF, 1986f) gave guidance on the selection of pesticides, which included (a) referring to the "Compendium of Approvals" to check the pesticide was approved for the intended use,[112] and (b) studying the label and following the manufacturers recommendations for use.[113] Thus it was *advised* that the manufacturers recommendations were followed; it was not a statutory requirement. However some parts of the label, some of which might have been recommended by manufacturers, could be made statutory.

The Draft Data Requirements (MAFF, 1986i) gave a list of information which manufacturers should include on the label. These included (a) a restriction of use phrase, for example "For Use Only As An Insecticide", (b) a brief statement on biological use, for example "For The Control Of Aphids And Red Spider Mites On Top Fruit", and (c) directions for use. What the latter might consist in was not specified, but was to be discussed between the applicant and the PRSD.

After the end of the period covered in this chapter, in January 1988, a PICD interviewee reported that a press release had just come out explaining which parts of the label should be regarded as statutory requirements and therefore might lead to criminal charges if not followed. Powers were available to put all things on the label, for example minimum dilution rates. However the decision was that minimum dilution rates would *not* be a statutory requirement. Much would be *advice* on how to apply and would *not* be statutory.[114]

Amounts of Pesticide to be Used. The BAA noted that it would be necessary to spell out the reason for observing "minimum dilution rate", being the health and safety implications of higher concentrations of active ingredient in spray. It might be better expressed as a maximum concentration allowable.[115] The AEA noted that where maximum application rates and minimum dilution rates were set, and for what purpose, could inhibit technical progress.[116] Wildlife Link welcomed the specific obligations, but felt that *all* pesticides should have a maximum application rate and total number of

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111 Consultative Document: Paragraph 7.2.

112 Draft Code of Practice: Paragraph 4.2.

113 Draft Code of Practice: Paragraph 4.3.

114 Interview, MAFF(PICD), London 15/1/88.

115 Response to CD, BAA, 30/12/85.

116 Response to CD, AEA, 18/12/85.

applications, so that the amount of a pesticides in a particular area should not exceed an environmentally acceptable level.[117]

Also after the end of the period covered by this chapter, on 2 January 1988, the head of PRSD branch[118] explained how they had tackled reduced volume. A group of toxicologists got together:

> "...to answer the question 'could we reduce volume safely?' We had two objectives, (1) to come out with a reduced volume COP, and (2) to have a tolerance built into the label. Because manufacturers have to prove it's 100% OK toxicologically and we couldn't get round the fact that they would have to produce a toxicological assessment to put it on the label, they decided the Code would say that 'the farmer must read the label and (1) if it says the compound is toxic or very toxic they cannot use reduced rates or (2) if it says you cannot use the pesticide with a hand held lance or without protective clothing, then don't use reduced volume. (3) - All the rest you can use at reduced volume provided you wear gloves and if in a tractor without a cab use boots and gloves and protective clothing. If you have to use a face shield, then you also have to use it when spraying with a hand-held lance'. The rationale was that these very simple precautions give tenfold increased protection so you can reduce the volume by ten times. It is practical - the farmer just had to divide by ten. And it doesn't exclude CDA".

Application Methods to be Used. The CD did not mention application methods, presumably because it had been decided to provide guidance in the Code of Practice, and not on the label.

The BAA noted that there was no reference to application techniques, and that the means of application could affect safety and efficacy and should be specified on the label.[119] The BPCA asked whether "approved use" included approved methods of application.[120] The Soil Association noted that as soon as adequate equipment existed, the obligations should include a stated droplet size for a particular use, the phasing out of hydraulic nozzles and the introduction of more efficient and safer equipment.[121]

The CD did however note than an Application Technology Panel would be set up to advise the SSC on application techniques in relation to new developments, environmental safety and efficacy. Membership of this Panel would include sectional interests. There were wide calls for representation on the Panel which would decide details. The Panel would presumably formulate the guidance which would appear in the Code of Practice.

The Draft Code of Practice (MAFF, 1986f) gave guidance on the selection of application techniques: "...pesticides must be applied by the means which best meets your legal obligations, the needs of the enterprise, the target crop, the particular

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117 Response to CD, WL, 24/1/86.

118 Interview, MAFF(PRSD), Harpenden 2/1/88.

119 Response to CD, BAA, 30/12/85.

120 Response to CD, BPCA, 30/12/85

121 Response to CD, SA, 30/11/85.

product in question, and safety or environmental considerations",[122] and, "For sprayers, particular care should be taken to select the most suitable type and size of nozzle. When applying pesticide the law requires that you do not exceed the approved maximum dose which will normally be specified on the label. So choose the nozzle carefully".[123] Application methods were therefore to be user-discretionary. The detailed guidance on nozzle selection, taken from the calibration procedure prepared by the ATB and BCPC (and adopted by AEA and BAA), began with an exhortation to "READ THE LABEL: Check chemical pack for recommendations on volume of application and spray quality (nozzle type and operating pressure)".[124] This meant that the application technique, although recommended on the label, was not to be one of the statutory parts of the label.

On application methods, the problem for the Government was expressed by the head of PICD: "...we can't just give legal force to what the manufacturers ask - or else who is the lawmaker?"[125] The head of the PRSD said "Pesticide manufacturers will exclude some equipment, but equipment manufacturers have been developing equipment which allows one to apply low volumes, and pesticide manufacturers are reluctant to do the tests for these".[126] The director of Harpenden mentioned that:

> "One of our problems is that pesticide manufacturers will only label the most common method of application...but the machinery manufacturers are developing new techniques. One of the problems in the UK is that the spray manufacturers and spray equipment manufacturers are different organisations and stay apart. So we [PRSD etc] are the 'meat in the sandwich' to an extent".[127]

So, just as the PRSD provided the interface between the pesticide manufacturer and pesticide user, they provided the interface between the pesticide manufacturer and spraying equipment manufacturer.

According to PICD,[128] the Application Technology Panel would spend 1987 sorting out the code on reduced volume applications. At 8/10/87 the director of PRSD was:

> "...endeavouring to look at ways of extending the range of equipment available to farmers, in the Application Panel, by looking at the developments to see which are producing sprays regarded as equivalent to conventional machinery...there is a degree of controversy as to how effective CDA applicators are for different applications - you may *need* the different sizes of droplets produced by conventional sprayers".[129]

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122 Draft Code of Practice: Paragraph 4.5.

123 Draft Code of Practice: Paragraph 4.5.

124 Draft Code of Practice: Appendix 2.9.

125 Interview, MAFF(PICD), London 5/6/86.

126 Interview, MAFF(PRSD), Harpenden 8/10/87.

127 Interview, MAFF(Harpenden Labs), Cambridge 25/11/87.

128 Interview, MAFF(PICD), London 15/6/86.

129 Interview, MAFF(PRSD), Harpenden 8/10/87.

Tank Mixes and Adjuvants to be Used. The AEA said that an obligation to use only notified adjuvants could inhibit technical progress.[130]

The main debate in the Commons and Lords was on adjuvants and tank mixes (HC, 1986). Mr John said that the committee had favoured the minimum of pesticides applied with the maximum of accuracy. Adjuvants, which made lower quantities of pesticides more effective and cut the risk of spray drift, were to be subject to an approval procedure which was not part of the regulations. This omission had led UKASTA and the AEA to believe that manufacturers had been given an effective veto on what substances could be used with their pesticides and what means of application could be used. They had had an absolute assurance that such techniques would be neither explicitly nor implicitly banned. Mr Griffiths (C) said that a CDA sprayer manufacturer in his constituency claimed the regulations would destroy his business. An advisor to the latter had written that this:

> "...gave a charter for the major international agrochem manufacturers to restrict development and special applications of adjuvants in the United Kingdom...one cannot use an adjuvant except in accordance with the conditions of approval given in relation to a pesticide and...would in fact be a label from a manufacturer".

This was bad as some products made no recommendations for any adjuvant, even where the market for the pesticide would not exist without an adjuvant. The intention to publish a list would not be implemented until some time in the future. Paragraph 3 of schedule 3 would contain "something to the effect that this pesticide may only be used with adjuvants which appear on MAFF's list": "something to the effect" was unsatisfactory when the House was being asked to pass specific regulations.

Mr Carlisle said that the regulations would restrict many farmers in the mixes they could put in their own tanks as they would have to keep rigidly to manufacturers' recommendations. He was also concerned that adjuvants did not appear in the regulations. The cost to the farming industry could be considerable. Geographical and climatic conditions meant that farmers should be able to mix and use the strengths of chemicals according to their judgement.

Mrs Fenner only restated that there would be a list and that she could not give the exact wording that would appear in the regulations.

In the Lords (HL, 1986) Lord John-Mackie said the advantage to the use of tank mixes was that three or four sprays could be mixed, saving pesticides, physical work and physical crop damage. But now this could only be done with approval. If the approval was to come from the label it would give manufacturers wide scope to prevent the use of mixes which might reduce their sales. Adjuvants similarly saved spray and made them more efficient.

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[130] Response to CD, AEA, 18/12/85.

The Use Consent of 6 October, included conditions on tank mixes and adjuvants which were now to be effective on 1 January 1989:

> "No person shall [combine or mix for use two or more pesticides / use a pesticide in connection with an adjuvant] except in accordance with the conditions of the approval given originally in relation to [that/those pesticide/pesticides] or as varied subsequently by a list of authorised [tank mixes/adjuvants] published by Ministers".[131]

Therefore a combination of labels and lists was to be used. The question of who would have the discretion to put use restrictions on the label was still open, but MAFF would presumably formulate their lists by 1 January 1989.

The Draft COP noted:

> "It is the user's responsibility to ensure that the proposed use of any adjuvant/pesticide or pesticide/pesticide or pesticide/liquid fertilizer tank mix is in accordance with the terms of approval for the pesticide product(s) concerned. It is therefore necessary to consult *either* the pesticide product label(s); the 'compendium of approvals'; or any separate MAFF list of permitted tank mixes/adjuvants as appropriate" (my emphasis) (MAFF, 1986f).[132]

The Draft Data Requirements (MAFF, 1986i) noted that users could submit tank applications for approval. Combinations conforming with the aims of FEPA would be listed in MAFF's approved list. No format for these applications was given at this stage.

On 19 January 1989, a new Use Consent replaced the first, and the tank mix condition was changed:

> "Until 31 December 1991 no person shall combine or mix for use two or more organophosphorous pesticides or mix for use two or more organophosphorous pesticides or an organophosphorous pesticide and a carbamate pesticide unless the approved label of at least one of the pesticide products states that the intended mixture may be made; and no person shall combine or mix for use two or more pesticides if all the conditions of approval relating to this cannot be complied with".

Presumably tests had to be carried out by MAFF to ascertain the safety of these mixtures.

Purposes for which Pesticides to be Used. The procedures for dealing with the minor uses of pesticides were detailed in the CD. They were to be developed administratively and hence did not appear in the regulations.

The CD noted that "One of the main problems incidental on the introduction of controls over use, as distinct from supply, is the problem of minor uses of pesticides. As far as we can ascertain, this is a problem mainly confined to the agriculture and

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131 Consent 2: Conditions 4 and 5.

132 Draft Code of Practice: Paragraph 4.15.

horticulture area of use".[133]

The BPCA said that this was not confined to agriculture and horticulture. They were problems which would significantly affect the public heath, amenity and industrial sectors. The proposals were unacceptable.[134] The AAWNTG were concerned that minor uses actively introduced a loophole into the law. "Minor uses" was not properly defined, and even if it were they felt no use of a substance should be made other than in an "approved" fashion.[135] The CA said that it was unclear whether this applied to home and garden chemicals. Would a label have to refer to specific plants found in a garden, and if a gardener used a product for other plants was he doing so at his own risk?[136] The NSCA noted that many public health uses would be regarded as "off-label", and wanted an exemption to permit such uses by local authority officers.[137] The RSPB noted that there might be a problem with chemicals used for nature conservation purposes, notably in vegetation management in nature reserves, but that the procedures would provide for conservation off-label minor uses.[138]

"Minor Uses" were defined as "...those advantageous uses of pesticides for which anticipated sales volume is not sufficient to persuade the manufacturer to carry out the research and development required for approval and label recommendations". Manufacturers sometimes sought clearance for use on major crops, but sometimes clearance was sought and granted for use on a wide range of crops (for example all ornamentals) whereas the product label recommendations would refer to a much narrower range. The result, said MAFF, was that horticulturalists could be deprived of much of their pesticide armoury once regulations under the Act made it illegal to use products for other that approved uses.[139] The problem was that a manufacturer's recommendation for use represents liability for damage caused to a crop through that use, so if the market for a use was small it was not worth while either to risk making untested recommendations or to carry out the tests necessary to ensure crop damage did not occur.[140]

The BAA were concerned about off-label approvals: "...anything which diminishes the control which a company is able to exercise over the use of its product, or which might reduce its commitment to, and responsibility for, its safe and proper use cannot be desirable, to industry, the regulatory authority, users and the public at large". The label would be devalued as a means of communication; the image of a product might be prejudiced; and the approvals system would be overloaded. On liability the BAA said that the legal implications had not been fully addressed. The Council Directive on

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[133] Consultative Document: Paragraph 4.33.

[134] Response to CD, BPCA, 30/12/85.

[135] Response to CD, AAWNTG, 19/12/85.

[136] Response to CD, CA, 9/1/86.

[137] Response to CD, NSCA, 20/12/85.

[138] Response to CD, RSPB, 30/12/85.

[139] Consultative Document: Paragraph 4.34.

[140] Consultative Document: Paragraph 4.5.

the approximation of the laws, regulations and administrative provisions of the member states concerning liability for defective products (85/374/EEC) stated that "...the liability of the producer arising from this directive may not, in relation to the injured person, be limited or excluded by a provision limiting his liability or exempting him from liability" (article 12). The BAA were also concerned about control of acreages because the initial acreage might in time increase and cease to be a minor use.[141] On the other hand the BPCA approved of off-label approvals, given that general use was restricted to label recommendations.[142]

FoE wanted to know who would decide what constituted a "minor use", and felt the whole area should be handled by the ACP.[143] PHIPCO noted that off-label uses also constituted a problem within the food industry, food importers, and public health.[144] The Soil Association considered that the off-label approval procedure could become cost and time saving, and liability avoiding for manufacturers who could exploit this cheap and fast clearance. There should therefore be a set upper limit for crops to qualify for this simpler system, measured in acreage grown nationally, annual profits from sales, or the crop as a percentage of total UK crops. On liability, a grower could be liable to claims for damages to health from off-label uses: would this liability be with the user or with the assessors of the pesticide?[145]

With the help of horticulturalists, the Government had identified the size of the problem, in terms of pesticide uses they would wish to continue.[146] The first step the Government would take was to publicise approved uses not on product labels. Eventually they would publish all approvals, making clear approved products and which crops and conditions applied to them, so that a grower would be informed of a wider range of approved products than on the label.[147] The second step would be to arrange expert assessment of unregistered uses without requiring supporting provision of full-scale data packages from growers. Notification would be to PRSD, and specifications would be as set out in Appendix 8.7.[148]

The BPCA said that these lists would have to be published monthly to be acceptable to them, and that the holders of approvals should issue technical sheets giving details of off-label uses.[149] The BAA wanted companies to be notified when a grower applied for an off-label approval.[150] The RSPB commented on the specifications: the applicant should state his assessment of environmental hazards posed

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141 Response to CD, BAA, 30/12/85.
142 Response to CD, BPCA, 30/12/85.
143 Response to CD, FoE, 30/12/85.
144 Response to CD, PHIPCO, 30/12/85.
145 Response to CD, SA, 30/11/85.
146 Consultative Document: Paragraph 4.36.
147 Consultative Document: Paragraph 4.37.
148 Consultative Document: Paragraph 4.38.
149 Response to CD, BPCA, 30/12/85.
150 Response to CD, BAA, 30/12/85.

by his proposed use; and in reasons for effectiveness the applicant should show if fully approved uses for the purpose had been considered.[151]

Using data already on file, the technical secretariat would assess the grower's proposals. A PRSD interviewee explained that proprietary rights were to be disregarded and anyone's data could be used. This was considered fair, as sales could be extended whilst no-one had liability.[152] It was expected that in most cases it would be possible to grant approval or suggest amendments to the conditions of use. Approval would be refused if there was insufficient data on file or if the pesticide was unsuitable for the proposed uses. Applications would be accepted from both groups and individuals.[153] The approved uses and approval conditions would appear as a published list, not on the label. The NFU had seen a problem with the sharing of an off-label approval (where one farmer paid but had to keep the use secret because others would not be able to produce documentation when inspectors came around), and had lobbied for the publicly-available list. "Because the NFU are involved we will try to see that it is not secret, but benefits the whole farming community".[154]

Decisions on all applications and the publication of the list of off-label approvals had to take place before 1 January 1988, when the ban on non-approved uses came into force. A PRSD interviewee explained that there would be a priority system for evaluating off-label applications: "...priority is given to those [agricultural and horticultural] sectors who would be at a loss - which need a pesticide but for which no-one has given a damn to develop one".[155]

Crop liability would rest with the user, but the user would not be liable for safety considerations arising from minor uses. In view of the crop liability problem, development of off-label approvals into on-label approvals would remain at the manufacturer's discretion. It was suggested that after two years with no crop safety problems manufacturers and growers might be encouraged to cooperate in the generation of crop safety data.[156]

The BAA said that this would remain at the manufacturer's discretion because of liability and commercial reasons.[157] At interview, they said:

> "...you can't insist that the manufacturer use his resources to pass products for the peppermint man...No R&D company would do the work. They want to seek full approval and stop off-label approvals. Off-label approvals will have to be very tightly reined in or it will expand into something unmanageable".[158]

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151 Response to CD, RSPB, 30/12/85.

152 Interview, MAFF(PRSD), Harpenden 1/2/88.

153 Consultative Document: Paragraph 4.39.

154 Interview, NFU, London 25/11/85.

155 Interview, MAFF(PRSD), Harpenden 1/2/88.

156 Consultative Document: Paragraph 4.41.

157 Response to CD, BAA, 30/12/85.

158 Interview, BAA, Peterborough 29/1/88.

The main argument was in terms of crop liability:

> "Liability is a problem. The BAA sees anything that diminishes the label as a risk in this respect...The way the off-label approval process is set out in the consultative document is very unsatisfactory. The EC directive on liability is likely to put liability squarely on the manufacturers, so that in court the grower with his off-label approval may have a case under the EC directive".[159]

Later, when they were told that liability lay with the user, they said "But the law depends on particular judges" and that in any case "there would be a loss of credibility of the product and it would be in the farming press". The blame was laid with the NFU: "There is an element of deregulation in taking on the new off-label uses. The NFU lobbied on applications for them and won over the Minister".[160]

A PRSD member felt that the off-label approval system was a "retrograde step", in that there would be no incentive for manufacturers to get something on the label. "We found lots of interesting things - there are lots of off-label uses which are valid, but the company don't want them on the label for commercial reasons. It costs a firm dear if they damage a crop".[161]

FoE was concerned that off-label approvals could become approved on the inadequate basis of "no complaints" from those involved in using them. More comprehensive scientific data would have to be taken into account.[162] AAWNTG said decisions on minor uses must go through the committee. The criteria for sanctioning an off-label approval was not strong enough: and approval must be on the basis of safety and residue tests.[163]

On fees, as well as the applicant, other growers and manufacturers would benefit from an off label approval. The Government would therefore charge a standard nominal fee, intended to contribute towards administrative costs, and set so as to deter frivolous applications. £50 per application was proposed.[164] A PRSD interviewee explained that only one grower had to apply, but the crop approval would not be held in anyone's name, so that the £50 could be spread over an association. It was thought fair that the first registrant should pay the fee, because they would be the first to feel the need.[165]

The BAA considered £50 too low to discourage frivolous applications. The fee should relate to actual costs incurred, and a higher fee might be necessary for growers.[166]

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159 Interview, BAA, London 12/12/85.

160 Interview, BAA, Peterborough 29/1/88

161 Interview, MAFF(PRSD), Harpenden 1/2/88.

162 Response to CD, FoE, 30/12/85.

163 Response to CD, AAWNTG, 19/12/85.

164 Consultative Document, Paragraph 4.47.

165 Interview, MAFF(PRSD), Harpenden 1/2/88.

166 Response to CD, BAA, 30/12/85.

The Draft Data Requirements (MAFF, 1986i) noted that applications for approval of minor uses could be made. The applications were to follow the format already discussed (Appendix 8.7), which remained unchanged in this document. Applications conforming to the aims of FEPA would be added to the eventual "compendium of approvals".

After the end of the phase covered by this chapter, MAFF was inundated with requests from farmers and horticulturalists for official approval to use pesticides in applications not listed on product labels. The £50 fee was to be brought in in October and in the week preceding its introduction 2,400 applications were sent in.

8.1.5 Conditions Applied to Pesticides Use Outside the Approvals Process

Training of Users. The Government said that training of users was presently provided by a variety of different organisations, and to a variety of standards. The ATB, manufacturers, suppliers, and agricultural colleges provided training. In the pest control and wood preservation areas where a service was more often supplied than simply the pesticide itself, companies and local authorities trained their own operators. "There is no unified system of training and in considering the need for one the Government had found itself much in agreement with the recommendations of the RCEP in 1979".[167] "It is proposed therefore, that Ministers will, by regulation, impose a general obligation on all those who use pesticides in the course of their business to ensure that they and their employees have received adequate instructions and guidance in the safe, effective and humane use of pesticides".[168] "It is further proposed that Ministers, by regulation, impose a requirement on those whose business is the application of pesticides that they and their employees involved in the use of pesticides attend an approved training course and obtain certification that they have reached the appropriate standard in the safe effective and humane use of pesticides".[169] At 6 May 1986, a PICD interviewee characterised the proposals in the Consultative Document as "unclear". "We need to discuss the *need* for training, the syllabus, the timing as far as contractors and other operators are concerned".[170] "We are still wavering over training. It may not get into the first set of regulations. We need more time".

When the regulations were being formulated, in accordance with the undertaking given in Parliament, civil servants had to check out "...what was available, what existing structures could be used, and what the appropriate level should be".[171]

The BPCA welcomed the provisions relating to training and certification, and said the distinction between these two should not depend on whether a charge was made,

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167 Consultative Document: Paragraph 6.5.

168 Consultative Document: Paragraph 6.6.

169 Consultative Document: Paragraph 6.7.

170 Interview, MAFF(PICD), London 6/5/86.

171 Interview, MAFF(PICD), London 17/12/87.

but on whether the work was being carried out for a third party.[172] The AEA welcomed the obligation on users to be trained. All operators should be required to attend an authorised course of instruction, and as a minimum should receive a certificate of attendance.[173] The NSCA noted that as mandatory training and certification would apply to local authority staff, the training already received by EHOs should be taken into account.[174] The SA thought there was a grey area over who was forced to take training: would there be a minimum size of holding to be eligible for training, and would just the person in charge have to be trained?[175]

The CD noted that "The Government will be discussing with the ATB, BCPC, NPTC, PHIPCO, and organisations representing pesticide users the establishment of appropriate training courses and standards and the necessary phasing in period for the requirements...and its extension to farmers and growers".[176]

The BPCA noted that the BCPC courses were already widely recognized and that they would be happy to submit them to independent assessment by PHIPCO.[177] FoE recommended a statutory requirement that *all* users should receive a minimum training period in all aspects of pesticide use.[178] The NSCA said that the "general obligation" was insufficient unless backed up by competence certification for farmers / employers.[179] The RSPB welcomed the "general obligation" but said that it would not receive the encouragement sought by the RCEP unless backed by promotional activity.[180] The Soil Association wanted the consultation phase to include others affected by pesticide use, like organic farmers, trades unions, conservationists and occupational health experts.[181]

The basic regulations on use described in the last section applied to training of users, and specific obligations were set out in Schedule 3. Schedule 3(4) required all those who use pesticides in the course of their business to be competent and to have received adequate instruction and guidance on the safe, efficient and humane use of pesticides (from October 6th 1986). Schedule 3(5 and 6) required, for agricultural pesticide use, contractors and persons born later than 31 December 1964 (under 25 on 1 January 1989) to obtain recognised certificates of competence unless working under the direct and personal supervision of a certificate holder, from 1 January 1989. Conditions could be added at any time.

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172 Response to CD, BPCA, 30/12/85.
173 Response to CD, AEA, 18/12/85.
174 Response to CD, NSCA, 20/12/85.
175 Response to CD, SA, 30/11/85.
176 Consultative Document: Paragraph 6.8.
177 Response to CD, BPCA, 30/12/85.
178 Response to CD, FoE, 30/12/85.
179 Response to CD, NSCA, 20/12/85.
180 Response to CD, RSPB, 30/12/85.
181 Response to CD, SA, 30/11/85.

There was little debate on this in Parliament. Mr John cited it as one of many areas where controls were being weakened: in Committee it had been agreed that training was vital when handling a toxic substance.

> "Our assent was therefore strained to breaking point when the regulations became known. They provide that only people who will be under 25 in 1989 will have to be trained before they can apply pesticides. With normal retirement dates, that means that it will be 40 years before everyone who handles pesticides will be covered by the regulations. I have heard of phased introduction but this is taking it to absurd lengths. A qualified work force is important".

When the Use Consent came out on 6 October, conditions provided that from that date employers had to provide users in their employ with instruction, and that persons using pesticides in the course of their business had to have received instruction.[182] Further conditions provided that from January 1 1989 commercial users and farmer users of agricultural pesticides had to have a certificate of competence or work under the supervision of someone who had such; but that in the case of farmer users only persons born later than 31 December 1964 had to possess such.

The decision on training was that the passing of a test would be required, and not just the attendance at a course. According to the civil servant in charge of training, this was in answer to the worry that there were one or two people who really needed to pass a test but who pleaded experience. "We could say 'well if you have lots of experience, then the test shouldn't be a bother to you'".[183] The burden on the present system had its influence in imposing age limits: "The age limit was set because we felt that for reasons of not wanting to impose a difficult burden on farmers and training facilities it was not practical to have thousands of people suddenly passing through. The system would crumble".[184] The argument for not including the majority of present farmers was that the great majority of pesticide use would be covered:

> "...the logic was that you can in fact say that a proportion of the people who have been spraying for a while have got some experience. The concern was with the people who were doing it the most, like contractors...From the point of view of the environment, crops and the public, contractors spray thousands of hectares whereas farmers only spray a few. So if we train the contractors, then we've got a large chunk of the pesticide users. The remaining concern was with new people coming into the industry - so 'everybody from x age on'".[185]

For the remaining (most present) farmers (where there only was a *requirement* to have someone on the farm *trained*), perceived existing pressures were relied on, in that PICD:

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[182] Consent 2: Conditions 1 and 3.

[183] Interview, MAFF(PICD), London 17/12/87.

[184] Interview, MAFF(PICD), London 17/12/87.

[185] Interview, MAFF(PICD), London 17/12/87.

> "...hoped that in this way we could ensure that the employers were meeting their obligation...we counted on two pressures (1) it would be convenient for employers to require their *employees* to get training (2) if the men wanted to move from job to job it would be useful to get the qualification".[186]

Farm workers' rate of pay was already being increased with NPTC skills certificates,[187]

> "...so we combined training for all contractors, training for all new entrants, with significant encouragement and heavy leaning for others. We would give the scheme time to get working and have set a review date. If it was not working we could draw the age obligation back a lot."[188]

It seems likely that resources were the main constraint dictating that farmers 25 - 65 could escape certification. One interviewee from the DHSS said that MAFF would have liked to train everyone but they were "...not allowed to".[189]

The Draft COP (MAFF, 1986f) said that the training obligation could be met by attending a recognised training course, by in-house training, or by a combination of the two. It set out what such a course should teach the user (see Appendix 8.8), but did not specify recognised courses or certificates at this stage.[190]

Later, in a replacement Use Consent advertised on 19 January 1989, training was amended. The training conditions, which allowed use of an agricultural pesticide (a pesticide for use in agriculture, horticulture, in or near water, or industrial herbicides) (a) with a certificate, or (b) under the supervision of a certificate holder, gave a third option for other pesticides (home garden, animal husbandry, food storage practice, vertebrate control, home larder and kitchen, other domestic, wood preservative, masonry biocide, public hygiene, nuisance, other industrial biocides, anti-fouling paint, and "other" as may be defined by the registration authority): (c) if "he uses it in accordance with an approval, if any". This obviated the need for training for use of these pesticides.

8.1.6 Other Significant Decisions: Synopsis

Controls on suppliers and distributors, apart from a general duty to take all reasonable precautions so as not to endanger humans or the environment (to be amplified in other statutory provisions and COPs), were a duty to supply pesticides only in officially approved containers; restrictions on advertising; attendance at and certification from a designated training course for storers and retailers of commercial products; and annual submissions of returns on quantities of active ingredient sold in the UK from companies with approved and provisionally approved products.

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186 Interview, MAFF(PICD), London 17/12/87.

187 Interview, MAFF(PICD), London 15/1/88.

188 Interview, MAFF(PICD), London 17/12/87.

189 Interview, DHSS, London 6/10/87.

190 Draft Code of Practice: Paragraph 2.

Apart from the offence (from 1987) of using pesticides for other than approved uses or in breach of the conditions of approval (to be amplified in COPs), a duty was to be placed on all pesticide users not to endanger man or the environment. Records of pesticide usage were not to be formally required but failure to keep records could be used as evidence in a prosecution or be the subject of improvement notices if it had safety implications.

On exports, the Government's intention was to use the UN's IRPTC to notify all countries of any bans or severe restrictions imposed on pesticides used in the UK. Firms exporting these products were to be asked to tell the Government, to enable it to notify the importing country of the shipment.

On reviews of approvals, the Consultation Document noted that full reviews of PSPS clearances had until now only been initiated following changes in usage patters, evidence of adverse effects, or applications for a revised clearance. However the drawback of this was that products could remain on the market for 20 years without being reviewed, even while great strides were made in analytical and toxicological testing methods. In future all pesticide products would be automatically reviewed every 10 years after first commercial approval. A phased review of all existing PSPS cleared products was also to be carried out. No mention was made of the 5-year deadline for completion of the reviews, hinted at in Parliament.

A major change was to be a move from the four-stage clearance scheme operated under the PSPS to a 3-stage approval procedure, whereby the trials and limited clearance stages would be amalgamated into a single trials permit, allowing closely supervised R&D to be carried out for one year under stipulated conditions. MAFF's explanation for this move was that firms had increasingly sought to gain an early foothold in the market by taking advantage of the less onerous data requirements in the UK's limited clearance phase, which was unusual among industrialised countries. As a result pressure had increased on the Government to consider limited clearance applications "...often of a variable standard and with variable quantities of supporting data". In addition, enforcement of limited clearances - which could apply over substantial areas - had proved "difficult if not impossible" and breaches of clearance conditions had occurred.

In April 1986 the ACP's first annual report (MAFF, 1986b) recorded its actions on applications for clearance during 1984. Products containing five active ingredients received full commercial clearance; 12 active ingredients received or had renewed provisional clearance; and three applications were rejected. In addition Chlorbromuron (Ciba-Geigy) herbicide was downgraded from full to provisional clearance pending validation reports on mammalian toxicology studies originally conducted by the IBT laboratories. A decision to restrict the application of all synthetic pyrethroids with regard to periods of beneficial insect and bee activity in crops was announced following a 1982 review of environmental and toxicological properties (ENDS, 1986).

Later, on October 30 1986 a consultative document on pesticide residues was published (MAFF, 1986k). Three months were given for consultation and a further two for discussions. The introductory letter described the document as discussing the principles of a possible statutory system, and setting out reasons for proposing a statutory system. After the consultation exercise, if they decided to proceed with statutory residue limits, the details of commodities and chemicals to be covered would be the subject of a second consultation late in 1987. On 1 August 1988 the Pesticides (Maximum Residue Levels In Food) Regulations 1988 (SI 1378) were made, coming into force on 2 August 1988 and 31 December 1988. Very detailed schedules were attached giving MRLs for specific pesticides in a range of foods.

8.2 Concurrent Procedural Factors

The Consultative Document. The Consultative Document set out what were still termed "proposals" which had been agreed between departments for implementation through regulations. According to a PICD interviewee the document was to be seen as "...our policy document, not a compendium of detailed plans".[191] It was emphasised that the proposals were subject to change following consultations with the ACP, the HSC and Parliament; and that individuals, groups and representative organisations affected by the proposals should equally contribute to discussions before they were finalized. The period for written comments was two months (November and December 1985), with another two months for subsequent discussions with organisations (January and February 1986). The distribution list for the document is given in Appendix 8.9 (MAFF 1985g). 1,500 copies of the document were sent out by PICD, and they received 125 written submissions.

The "Consultation Exercise". As compared to the 125 written submissions there were apparently only 25 consultation meetings with representative organisations (HC, 1986). This probably meant that multiple meetings were held with fewer than 25 separate organisations.

The Draft Regulations. The Draft COPR were laid before Parliament under the affirmative resolution procedure. The scope of the debate on a statutory instrument is confined to the contents of the instrument, and discussion of alternative means of achieving its object is not in order. Nor is any criticism of the parent Act permitted (Cocks, 1971). The regulations had to be accepted as a whole or rejected as a whole. The time for debate was one and a half hours. The regulations were accepted as a whole and hence "The Regulations" were no different to the draft regulations.

Control Tools Available, Those Chosen, and Timing of Introduction. The FEPA provided powers to control some areas by regulation or order, and others by administrative means. Regulations could be used to control import, sale, supply,

[191] Interview, MAFF(PICD), London 13/3/86.

storage, use, advertisement, residue levels, disclosure of information; to establish an ACP; and to enforce. Administrative means of control could be used to require information, charge fees, recover expenses, issue codes of practice and authorise enforcement officers.

The regulations related to advertisement; sale, supply and storage; use and disclosure of information. All of these things were prohibited except in connection with an approval for a specific pesticide (a further regulation covered granting approvals), and a consent to an activity (a consent being a general rule covering all approved pesticides and covered by a further regulation), along with conditions attached to approvals and consents. Possible conditions on consents to the activities of sale, supply and storage; use; advertisement and aerial spraying were set out in schedules to the regulations, each of which contained a general obligation to take reasonable precautions to protect the health of human beings, creatures and plants, and to safeguard the environment, and some specific obligations. Consents would be advertised in the London and Edinburgh Gazettes.

Some regulations possible under the Act were therefore not formulated in the October 1986 set of regulations, notably residues (which were to be the subject of a later consultation exercise and further regulations) and identical imports (which had already been controlled administratively; imports in general were controlled under regulations on supply). In addition many of the included regulations would not come into effect until after a transitional period, notably certificates of competence for suppliers (1 January 1987); users' compliance with conditions of approvals (1 January 1988); advertising (1 January 1987); persons under 25 on 1 January 1989 to obtain recognised certificates of competence (1 January 1989); and controls on tank mixes and adjuvants (1 January 1989). In the case of training, the phased introduction meant that it would be a further forty years before all pesticide users were trained. In the case of tank mixes and adjuvants, MAFF were to publish lists to acceptable uses, so that this regulation spilled over into control by administrative means. All of these were areas which were far removed from control of the supply of pesticides.

Administrative procedures were not detailed, but there was to be a code of practice on agricultural and horticultural use of pesticides. Details of the approvals process would be settled administratively as would arrangements which entailed providing access to the process by sectors other than suppliers (like minor users). Much of the work on these details would be carried out on a continuing basis by panels under the advisory committees, and by working groups. There would be Environmental, Medical and Toxicological, Labelling and Container Design, and Application Technology Panels. Detailed work on user obligations, again far from the *status quo*, were to be given more time, less public scrutiny and could be revised continuously. In addition a large portion of existing arrangements on data requirements in the approvals process were to continue to be settled administratively, thus preserving

discretion with respect to information required and keeping the basis of decisions non-standard on individual pesticides. Which conditions would have to be or could be put on the label and which of those conditions would be statutory requirements on users were not detailed. Codes of practice would cover aspects of use not covered by the approvals' or consents' conditions. These would be largely drawn from existing literature, but guidance on application techniques would be provided here rather than on labels.

Consents. The 6 October Use Consent, and that on Sale, Supply and Storage, did not amplify on the conditions set out in the regulations. The transitional periods for certain controls were the same as in the regulations. However certain things in the regulations were left out of these first Consents, for example advertising.

On 19 January 1989 new consents were issued which replaced the original ones, varying them slightly as a result of administrative difficulties. The Pesticides (Fees and Enforcement) Act was also introduced for this reason.

Codes of Practice. The force of a COP is such that a failure of any person to follow the guidance given would not of itself render a person liable to proceedings, but it would be admissible in evidence in any criminal proceedings under the parent Act.

The Draft Code of Practice on the Agricultural and Horticultural Use of Pesticides was circulated to a large list for comment. Parts of it, like parts of the label, referred to statutory obligations, but most was guidance.

Representation on Decision Making and Advisory Committees and Panels. The ACP was to be a statutory body, to be consulted by Ministers on regulations, approvals and conditions, and to advise on request or on its own initiative in furthering the pesticides part of the FEPA. It was to continue to consist of members independent of commercial or sectional interests (see Appendix 8.10). Its expertise was mainly toxicological and medical, and an environmental expert would be appointed as its remit now covered the environment, efficacy and humaneness. Officials of Government departments would continue to attend ACP meetings as assessors, providing "advice and assistance" but taking no part in decisions.

The SSC would continue to assess the technical data supporting applications for approval and advising the ACP on conditions to impose to ameliorate risks, and on the extent and type of test data needed from manufacturers to judge safety, efficacy and humaneness. SSC would continue to consist of representatives from Government departments and agencies, as well as academic, medical and research establishments (see Appendix 8.11). An additional expert to advise on the environment would be appointed.

The existing formal Medical and Toxicological, and Environmental, Panels would continue, and in addition there would be a formal Labelling and Container Design Panel, and a Pesticides Application Technology Panel. The Panels, apart from the Environmental Panel, would include sectional representation from pesticide

manufacturers, farmers and trades unions for the first time, although these would not be involved in the approval process.

The Medical and Toxicological Panel would advise on medical problems put to it, point out matters concerning the impact of pesticides on human health, and advise on toxicological test methods. Members of the SSC and DHSS would be involved, and one representative from each of BAA, BPCA, BWPA, NFU, TGWU, NAAC and GMBU.

The Environmental Panel would advise on environmental problems put to it, point out matters concerning the environment and advise on wildlife impact assessment methods. The current membership, which did not include any sectional representation (see Appendix 8.12), would continue, with the addition of a representative from the DoE.

The Labelling and Container Design Panel would point out problems arising from container and label design, and advise on improving standards. Members of Government departments and research establishments would be involved, as well as one representative from each of BAA, BPCA, BWPA, NFU, TGWU, NAAC, GMBU, plus BCPC and UKASTA.

The Application Technology Panel would advise on application techniques in relation to operator safety, environmental safety and efficacy, and review and point out new developments in application technology. Members of Government departments and research establishments would be involved, as well as one representative from each of BAA, BPCA, BWPA, NFU, TGWU, NAAC, GMBU, plus the AEA.[192]

8.3 Influences on Participation and Policy Making

The Consultative Document gave a large list of pesticides which could be regulated, but restricted current regulations to those covered by the PSPS plus chemosterilants and anti-fouling paints. Thus the product range regulators were familiar with was dealt with, plus the troublesome anti-fouling paints industry, whilst pesticidal materials covered by other legislation were not brought in and consolidated, despite attempts by environmental groups wishing more categories to be regulated including pesticides for export. The regulations stuck to the original decisions, and the regulatory scope remained basically that of the PSPS. Thus the debate on scope over the three phases had had no effect on the regulations.

As concerned pesticides which were to be regulated, again not enough forethought had been given to the effect on sectors. The wood preservatives efficacy data requirements were irrelevant and garden chemicals had never previously applied for efficacy approval. The fact that Pest Control products were applied over a larger number of sites and had greater exposure to the public had to be taken into account in

[192] Consultative Document: Chapter 3.

safety data requirements. Part of approvals presently entailed agreement on a container, but if this was made statutory the operating practice of decanting pest control products would be stopped. Similarly part of approvals entailed agreement on label conditions, and the practice of buying wood preserving products in concentrate and diluting them on site would be stopped.

The BAA and the Government sustained the identicalness criteria in this phase on the grounds that safety would be jeopardised. Environmental groups agreed. The Draft Data Requirements, giving details of the procedure to be followed for identical imports and the information needed, were published after the public consultation and debates were over, thus confining the discussion to affected sectors and regulators.

With respect to data requirements there was no real technical change. A scientific service interviewee said:

> "On the technical side we are pleased that the scheme stayed the same, and especially pleased to know that people will now all be following the rules. Before, we didn't know if we were being ignored. It has also defined our job so it is simple to understand what we do".[193]

Thus PRSD could feel more secure that their authority was not being eroded. In addition they were back in charge of developing the protocols for efficacy data, and their arrangements for circumscribing their role to "scientists" had not been challenged. As a PRSD interviewee said:

> "...the legislation identified our real role. This is to ensure that the Government get the right technical *advice*. Putting this in writing is very important as previously we hadn't stopped at advice but had sometimes gone forward and given clearance. The legislation *enthrones* the administrative branch",

meaning as decision takers.[194]

With respect to use, there were likewise no new safeguards: "Legislation has not generated new safeguards. All the safeguards were on the label before. However there was no comeback if the farmer didn't follow the label. Now it is illegal not to".[195]

Even in this phase decisions on training had not been well formulated, and a lot of the detailed consideration on it was still to take place. It was, in addition, only in this phase that it was taken up as an issue by interest groups. A range of alternatives had still to be set out and discussed. The head of PICD said:

> "This is an area which has been less thought through. We have less information on it. It's the thing, if you like, that is furthest away from the PSPS. The PSPS has nothing to do with use, except insofar as in controlling supply you ultimately control use...the further from known territory, the more

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193 Interview, MAFF(Harpenden), Cambridge 25/11/87.

194 Interview, MAFF(PRSD), Westoning 11/1/88.

195 Interview, MAFF(Harpenden), Cambridge 25/11/87.

we require information before we move".[196]

Members of PICD were therefore very receptive to, and were actively seeking suggestions in consultations.

8.4 The Quality of Participation

Consultative Document. A lack of detail in the document was lamented by most interviewees, who as a result requested meetings with MAFF, for example UKASTA:

> "...the Consultative Document is not practical - it has to be made practical. It represents the broad intentions. We won't know about the fine-tuning until we see the actual regulations and statutory instruments...It's one thing to work out the grand theories but when we get down to the nitty-gritty is when the fights will come. The whole drift of our comments is that...the Consultative Document is a good basis for discussion and UKASTA is willing to cooperate in making the regulations as practical and workable as possible".[197]

Wildlife Link still felt uncertain that the powers would be used.[198] Other organisations actually felt they had benefitted in the end from the lack of detail, in that they had been invited to join working groups which would work out details of controls apart from the regulations, for example the NAAC, who were invited to join three panels.[199] Shortcomings in the substance of the Consultative Document have been explicated with respect to particular issues in previous sections.

The Consultation Exercise. The AAWNTG were impressed with the consultation exercise: "The amount of trouble gone to and the amount of time taken is very good".[200] The BWPA on the other hand felt the exercise based on the Consultative Document to be "a nonsense", because "...the draft regulations themselves were written well before Christmas, so what does 'consultation exercise' mean?"[201]

In their response to the Consultative Document, the BAA requested "specialist meetings" between PICD and BAA on particularly important areas of the document to ensure understanding of PICD intentions and BAA reactions. They said "...we would wish to field different groups of people having appropriate expertise". They wanted meetings as early as possible and a sight of the draft regulations before they went to Parliament. They noted that in their response they had "...refrained from making specific proposals, believing that these would best be made during the discussions".[202]

The AEA described their meeting with the PICD as very useful, amicable, impartial and constructive, where they discussed various alternatives open to the

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196 Interview, MAFF(PICD), London 6/5/86.

197 Interview, UKASTA, London 27/1/86.

198 Interview, WL, London 19/3/86.

199 Interview, NAAC, London 6/3/86.

200 Interview, AAWNTG, London 29/1/86.

201 Interview, BWPA, London 20/1/86.

202 Covering Letter to Response, BAA, 30/12/85.

Ministry in a pleasant atmosphere.[203]

Many groups felt the need for still further meetings, especially meetings on the regulations themselves, and pushed to be included in working groups (see next heading).

Representation on Decision Making and Advisory Committees and Panels. There had been requests for the representation of various groups on the committees throughout the pre-parliamentary and parliamentary phases, and appointees had been set out in the Consultative Document (see previous section). Groups were now particularly keen to be represented on panels which would work out the details of conditions on activities relevant to them.

The NSCA wanted local authority (as the publicly accountable body enforcing aerial spraying provisions) and environmental group representation on committees and panels.[204] Wildlife Link wanted two nature conservation experts and a voluntary wildlife movement assessor on the ACP; two nature conservation experts on the SSC; representatives from the wildlife movement on the Environmental Panel; and representatives of environmental groups on the Labelling and Container Design Panel and the Application Technology Panel.[205] The CA wanted a garden chemicals expert on the Labelling and Container Design Panel.[206]

The TGWU(AAWNTG) wanted more group involvement in the ACP, and details of how the HSE would make an input to the ACP. They wanted an Advisory Committee on Toxic Chemicals (ACTS) type body within the HSC containing employer, employee, Government and environmental interests to monitor all aspects of pesticides relating to safety, to liaise with a MAFF body which would only do efficacy monitoring. The health, safety and environmental roles of Government and advisory bodies were currently involved in crop protection considerations, which caused a fundamental conflict between safety and production factors within MAFF. The proposals left the ACP "as closed as ever". It and the SSC should contain medical and toxicological representatives acceptable to and appointed by unions and environmental groups, as well as environmental and consumer interests, and be accountable to the HSE. The SSC should contain a residues expert. The Panels were solely advisory and had no powers of decision or veto so were unlikely to have any effect on decision making. The Environmental Panel had no sectional representation, and the other three panels should have equal numbers of employer, employee and environmental group representatives.[207]

UKASTA welcomed its inclusion on the Labelling and Container Design Panel.[208]

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[203] Letter from AEA to PICD, 28/1/86.

[204] Response to CD, NSCA, 20/12/85.

[205] Response to CD, WL, 24/1/86.

[206] Response to CD, CA, 9/1/86.

[207] Response to CD, AAWNTG, 19/12/85.

[208] Response to CD, UKASTA, 16/1/86.

The NAAC welcomed the statutory status of the ACP and approved the "independent" status of its members (NAAC, 1986). The AEA welcomed its inclusion on the Application Technology Panel, and suggested the chair should be occupied by an engineering expert, naming the Deputy Director of the National Institute of Agricultural Engineering. Chairmen of panels should attend as assessors at SSC meetings. They also requested membership on the Labelling and Container Design Panel because of the possibility that labels might preclude engineering innovation.[209]

FoE considered that the regulations did not go far enough or allow for proper accountability of the pesticides industry. The reforms and innovations in the regulations would be a "hollow sham" if the ACP remained unreformed, and union and environmental groups remained excluded from representation on some of the committees. Like the TGWU, they suggested division of responsibilities between MAFF and HSC to avoid a conflict of interests. The ACP and SSC should have representatives from a wide range of pesticides-concerned groups and not simply reproduce the restricted PSPS model. The environment experts should have the full confidence of unions and environmental groups. The panel system was welcomed, but further unions and environmental groups should be represented.[210]

The BPCA wanted public health and amenity pest control experts on the ACP and SSC. They noted that some civil servants on the SSC were involved in contract research projects taken on by Government establishments so that they too should declare commercial work. The Environmental Panel should be open to sectional interests, and a Residues Panel should be set up.[211] The BAA welcomed the independence of the ACP and SSC, but said they believed the HSC were setting up a pesticide panel under the ACTS to provide advice and recommendations on approvals to the Secretary of State for Employment. It would be damaging to ACP/SSC decision making to be subject to further review by the HSC with respect to the effects on health and safety of people at work.[212] They wanted weed science (to cover efficacy) and public health expertise on the SSC. The Medical and Toxicological Panel should be split into its two functions, and one expert from each field should be provided by the BAA. Likewise for the Labelling and Container Design Panel. They wished to field industrial environmental expertise on the Environmental Panel.[213] PHIPCO wanted public health and industrial pest control expertise on the ACP and SSC. The Environmental Panel should have sectional representation. The food industry would like a Residues Panel.[214]

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[209] Response to CD, AEA, 18/12/85.

[210] Response to CD, FoE, 30/12/85.

[211] Response to CD, BPCA, 30/12/85.

[212] Covering Letter to Response, BAA, 30/12/85.

[213] Response to CD, BAA, 30/12/85.

[214] Response to CD, PHIPCO, 30/12/85.

OXFAM wanted NGO representatives on the Environmental Panel. In addition all panels should have expertise on pesticide use in the Third World, especially the Environmental and Labelling and Container Design Panels.[215] The RSNC wanted NGO representation on the ACP, at least as observers. The Environmental Panel was dominated by agricultural departments. New members should be appointed from other departments and there should be at least one NGO representative, as well as an ecosystem ecologist. The Labelling and Container Design Panel and the Application Technology Panel should have environmental representation.[216] The SA wanted NGO representatives from organic farming, environmental groups and trades unions on the Environmental Panel. NGOs should have a greater chance to feed ideas to the Labelling and Container Design Panel. At present it was unclear if the Panels could take the initiative in providing advice and so the scope for involvement would be considerably curtailed. The Medical and Environmental Panels' terms of reference suggested they were solely responsive.[217] The RSPB thought that environmental representation on the ACP and SSC should be considerably strengthened. There should be at least two experts, one in vertebrate biology and another in wild plant botany. The SSC should have experts on native flora and pure entomology (as opposed to agricultural entomology) to redress the agricultural bias. The Environmental Panel did not have adequate representation of the natural environment and was also dominated by MAFF: Voluntary nature conservation NGOs should be involved, and botanical representation was needed. Half the representatives on it should be nominated by environmental organisations like the RSPB. This would increase confidence in it.[218]

Like the myriad suggestions for participation on these groups, there were many suggestions in CD responses for possible material to be included in the Code of Practice, which was similarly to be constructed (partly through panels) out of sight of many interested parties. For example the BPCA wanted PHIPCO to be consulted;[219] FoE and AAWNTG wanted COPs recommended by unions and environmental groups incorporated;[220][221] the RSPB and the RSNC wanted environmental hazards stressed and to be consulted;[222][223] and the SA wanted consultation with NGOs in general.[224]

Control Tools Chosen. During the debate on the regulations (HC, 1986) the Opposition opposed the regulations on the grounds that they would be ineffective. Complaints were made about the general manner in which the regulations were framed;

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215 Response to CD, OXFAM, 30/12/85.
216 Response to CD, RSNC, 18/12/85.
217 Response to CD, SA, 30/12/85.
218 Response to CD, RSPB, 30/12/85.
219 Response to CD, BPCA, 30/12/85.
220 Response to CD, FoE, 30/12/85.
221 Response to CD, AAWNTG, 19/12/85.
222 Response to CD, RSPB, 30/12/85.
223 Response to CD, RSNC, 18/11/85.
224 Response to CD, SA, 30/11/85.

the probity of Ministers in introducing them in this form when details had been promised; and the omission of items from regulations which the Consultative Document had said would be included.

The Government was accused by Mr John of misleading MPs about their intentions during the passage of the FEPB in Parliament, when details of the control arrangements were promised in the regulations, whereas the regulations in hand were "...almost as general as the Act itself, and just about as vague". Parliament would now have to wait for a stage beyond secondary legislation:

> "...tertiary legislation, legislation by advertisement...Not only were we misled in Committee, but the regulations are now being framed in such a form - by adverts advertising them in the London Gazette and Edinburgh Gazette - which will mean that many details of pesticide use will never be debated in the House".

It was still impossible to tell from the regulations what "...sort of controls we shall end up with", because of the discretion they allowed Ministers. Even the advertisements would only give controls on categories of activity relating to all pesticides, not details of controls on the pesticides themselves.

It was true that the schedules gave some details of what the conditions might comprise, but these were sketchy and even then there was no obligation to include all those points. On top of this details which were not mentioned could also be advertised in the Consents. Parliament was being firmly shut out of the substance of the debate.

Ministerial probity was called into question by assurances given which had not materialized, for example that there would be detailed regulations on labelling and containers (HC, 1985c), which had not even been mentioned; and that there would be twelve additional agricultural inspectors (HC, 1985d), when from evidence given to the Agriculture Committee they now knew there would be none.

The fact that the approvals procedure was not covered by regulation but would be left to administrative procedure was considered an omission given what had been covered in the Consultative Document. The omission of adjuvants from the regulations left it to the discretion of manufacturers to veto or not adjuvants, tank mixes and application methods. Mr Griffiths noted the intention to produce a MAFF list, but that the list had not been presented and would only be presented "at some time in the future". Parliament was being asked to approve an intention, not a regulation. Mr Hughes noted that the method the Government had chosen (consents) was basically the granting and withholding of licences: this was "...putting back the day and the way in which the law becomes effective".

Ms Maynard worried that further regulations implementing items not so far covered would not materialise. In addition the scope of the regulations was too narrow whilst pesticides exempted from them were too wide, which was "the worst of both worlds".

Mrs Fenner said that it had to be accepted that "...in principle Ministers should be able to add other controls as circumstances change", and that since the changes had to follow the intention of the Act there was no need for Mr John to wait to see what the Consents contained. The reason that many points in the Consultative Document were not in the regulations was that there would be administrative arrangements covering them.

The regulations were approved by a vote of 219 : 128

In the Lords debate on the regulations (HL, 1986), Lord John-Mackie complained of the wide powers taken to alter provisions simply by advertisement which did not allow sufficient consultation. He was also worried about Ministers making information available "...on such conditions as they may determine": these conditions needed to be better explained. Again the question of whether the approval for a tank mix or adjuvant would come from a label was unclear: if it did the manufacturer had the discretion to prevent mixes which would reduce sales. It was unclear what level of, and when, fees would be charged. Lord Skelmersdale, for the Government, repeated Mrs Fenner's statement that it was necessary to be able to add conditions in circumstances which changed rapidly, such that it was impractical to make "...endless regulations through the statutory instrument procedure". The regulations were agreed.

9. Conclusions

This Chapter first focuses on the operation of substantive and procedural influences on the development of regulatory policy within the context of this case-study. It goes on to discuss some generalisations which can be made about the style of policy making with respect to the general approach to policy making and the approach to participation (admission of participants and alternatives to the debate). This leads to a consideration of the legitimacy of the policy making process during regulation formation in terms of participant effectiveness and the quality of debate. The Chapter concludes with some comments on the limitations of the analysis, suggestions for further research, and a synopsis of substantive developments in pesticides controls in the UK in relation to european intergration.

Influence of Pre-Existing Substantive and Concurrent Procedural Factors. In the situation investigated for this thesis, there were a number of factors which combined to influence policy making style, effective participation, and thus the potential for change in pesticides controls. Individual issues can be characterised by the presence of factors associated with them and the degree to which they are present. The style of policy making and participation can be inferred from such characterisation. Most issues are beset by a large number of existing substantive factors. Most policy making is reactive, preservative, conservative and closed with the result that participatory effectiveness is normally low for those with no existing sectoral involvement. Concurrent procedural factors associated with the legislative context have little or no effect on the style of Government policy making or effectiveness of participation. The Government mode is to finish the public phases of policy making as quickly as possible and with minimal changes and return issues to their normal decision making arenas. The public handling of debate during the legislation served to highlight the underlying attitude to wider participation which is ever present but usually not obvious. However concurrent factors associated with the central policy making civil servants themselves and influences on them, like lack of time, influence policy making and participation.

In this case, relationships between administrative policy makers and interest groups, including the BAA and the NFU, were not longstanding. Also, since the administrators were new to this debate they relied heavily on advice from the regulators. Thus existing stakeholders had most access to central policy makers, and their preferences (usually to preserve existing controls) were influential in policy making in the legislative process. The regulators had even more influence than their stake in the existing system and preferential access accorded them, because of the large disparity in knowledge between themselves and new PICD administrators. As the regulators' main relationship was with agricultural pesticide manufacturers, a bias in consideration of this area was inevitable. As shown in Chapter 6, these effects were

most prominent at the beginning of the period under study.

The influences of existing relationships and practices were further compounded by the lack of time available before going to Parliament. As described in Chapter 6 there was only time to examine the potential implementation problems associated with making the *existing* scheme controlling pesticide supply statutory. There were a number of areas with which central policy makers were not familiar - thus details on areas other than the PSPS were lacking and the quality of debate suffered. Even in this restricted area many of the consequences of this situation were not anticipated, as noted in Chapters 6, 7 and 8, in connection with the scope of coverage and the minor uses problems. Another effect of the lack of time was that a wide range of participants were not admitted to the decision making process at an early stage, when most of the policy shaping took place. If there had been a Government pesticide policy in place, the short time scale would not have been so much of a problem.

On the other hand, because the senior civil servants were newly appointed, they were less influenced by loyalty factors, were likely to have a fresher appreciation of the issues involved, were possibly less politically biased towards particular sectors, and had a more open mind on alternatives. The fact that they had little time to come to terms with the range of existing practices and controls mitigated against the operation of these attributes, especially in the early stages, where they could have broadened the range of alternatives considered. They were largely guided by the participants in place especially the PRSD and the ACP. Even during the consultation on the regulations time was short, but certain issues could still receive consideration after the main body of regulations had been passed. Had they had more time to familiarise themselves with the possibilities, they might have been able to be seen more publicly to be considering more alternatives, and actually consider more alternatives before the framework was fixed. Consultation after the legislation was quite wide, and anyone who wanted to meet with MAFF was accommodated. However by that time the potential for change was more limited.

The lack of time to formulate wide ranging controls before the most public phase of policy making - the parliamentary phase - had other effects. It allowed civil servants to be tougher than perhaps the Government had intended. Both the PRSD and the PICD wanted to have more control over the manufacturers and to define their own roles and therefore authority more closely. It was not they but the Government and the ACP who were doctrinaire with respect to flexibility within the approvals process and deregulation. The administrative civil servants played a large part in persuading Government to take on more powers to appease the EC, the RCEP, and public opinion. Such powers may never have led to controls, but the civil servants involved made sure that some of them did. This was due to the influence of reports such as the those of the RCEP (1979) and the Royal Society (1983) and their belief in the "polluter pays" principle and the value of regulation.

Within the most public debate arenas, where there is maximum Government oversight, it is generally less easy to introduce change. The Government is interested in getting its bill through Parliament without substantive change. This may indicate insensitivity to public opinion, but is more likely to be a case of the Government not wishing to appear to be obstructive with respect to the pesticides industry, leaving this job to the administration. Where they did want to introduce a change which would be distasteful to the industry, but applauded by environmental groups, such as the disclosure of information clause, they left it to the Opposition to introduce it as an amendment, as reported in Chapter 7. Unfortunately with this mode of operation further changes take place out of Government oversight, where there is also less public participation. Civil servants did compensate for this by attending and speaking on the legislation at a large number of open conferences.

These general effects were present in different combinations and to different degrees for different issues. The number and type of factors involved can indicate policy making style (especially with regard to consideration of alternatives, relationship to participants and speed of change), and participative effectiveness. Generally speaking, all factors act to constrain the range of alternatives perceived as possibilities and therefore to constrain participative effectiveness.

There is an intrinsic degree of constraint exercised by the amount of information available about an issue, which is in turn determined by the age of the debate on the issue. A new issue with a large amount of Government or administration interest has the greatest potential for rapid change in the beginning and for effective participation. It also has the greatest likelihood of bypassing more entrenched influences, although participants with long involvement in previous regimes will seek to make it compatible. The fact that new issues emerged in relation to FEPA and were brought to debate was primarily because of the presence of new administrators, rather than the ideas of more established participants, and the influence on them of reports such as that of the RCEP (1979). Even so, new issues like training were not fully debated until after the most public phases were over and the main set of regulations had been published. It is possible that, even without the lack of time, such issues would be considered away from the view of the public and the Government.

Concurrent influences then operate on the above: aspects of procedure or practices could either entrench or enhance the range of control alternatives and range of participation considered (for example the fact that legislation had to be rushed through; delegation of the legislation to certain decision makers who may or may not be part of the established system; not disclosing details of official thinking; the nature and timing of the consultation processes). Current administrative decision makers can influence procedures and what are seen as problems.

A level of influence existing slightly further back in time was the nature and extent of interest and debate, and the pressures existing in relation to a range of

pesticides issues, but especially the issue areas which provided the immediate impetus for change and the decision to legislate and were thus highlighted. These set the stage for both of the above.

An additional level of influence depends on whether, and the degree to which, there are established practices or controls (the state of policy making in the control system). It is also affected by the degree to which present participants are established, and the state of fixity or readiness for change they embody. The latter could provide pressure for change, but more often preserves the *status quo ante*, operating as a considerable inertia, influencing all other levels.

Thus, if decisions and decision makers are relatively entrenched on an issue, procedures will tend to entrench it further. From the observations on the issues discussed in this thesis, this is usually the case. If the EC or public pressure exert an influence, change and participation are however possible. If the control issue is a new one initiated by the executive, change and participation opportunities are optimal, for example with the issue of training for pesticide users.

The impact of existing factors on participatory effectiveness (and therefore the appreciation of the legitimacy of the policy making process) is thus mediated by central policy makers. Their beliefs, and preparedness to be open, comprehensive and accommodating are reflected in the arrangements they make. However the degree to which their preferences can be expressed in these arrangements is constrained by situational factors. The constraining effects in turn can deliver more or less of their potential impact depending on policy makers' level of interest in options, level of authority to make choices, and level of ability to be comprehensive.

Since central policy makers mediate the influence of the other factors, their views on what influences them are important to consider. Their decision making was said to be influenced by (a) degree of knowledge, (b) degree of certainty, (c) degree of information and (d) amount of time available. All of these affect their opportunities to consider alternatives, when they decide to have informal meetings, and whether formal consultations will affect them. In other words when they can, when they will, and the circumstances under which they can consider alternatives and whether they can and/or will engineer those circumstances. This affects current arrangements and behaviour such as postponing manoeuvres, and negotiative manoeuvres.

The views of policy makers on what influences them give some indication about the conditions under which *scope* for effective participation exists. Policy makers would have to be relatively unhampered by existing practices and controls, the influence of their political masters, and the oversight of their political masters. There would have to be a relative lack of knowledge and of immediately available information from habitual sources, and of presented information from other sources. There would have to be a relative lack of sectoral bias, and of "important" sectoral interest. The policy makers themselves would have to be interested and have the time.

All but the last are unlikely to occur very often, and even then, the policy makers would have to be relatively disinterested with respect to sectors or ideologies.

Approach to Policy Making. The general approach to policy making during the legislative process of the FEPA was reactive. The precipitate decision to legislate was occasioned by reaction to a situation seen as a problem by certain sectors. As a result alternative views of problems or descriptions of existing practices and the ways in which they might be affected were not considered. This led to a further set of problems, engendering further reactive decision making, rather than decision making geared to avoidance of problems.

Given the generally reactive nature of Government decision making, problems must arise within an existing system and from the point of view of an important sector, to be significant enough to engender debate, intervention and potential change. It follows that important sectoral participants are also reactive in their approach.

Controls built into the legislation, for example for training, which had fewer roots in the existing system, were treated a little more proactively with respect to alternatives consideration, but were reactive to the extent that this was an RCEP recommendation (RCEP, 1979). The appearance of proactivity was reinforced by a relative lack of obvious interest from actors seen as important, there being, so far as was apparant, only mild pressure in favour of the proposal from the BAA, and against it from the NFU. The fact that training was considered at all was probably due to the individuals at MAFF, who did seek a wide range of views before opting for reinforcing existing non-contentious practices whilst not burdening the existing resources of the latter, probably because of private resistance from the NFU. Even the "evaluation document" which PRSD were to release to the public had already been developed by the regulators, on their own initiative, previous to the decision to legislate. However in the parliamentary phase it seemed like a new central policy directive. The actions of one or another sector always preceded *Government* policy on individual issues.

In existing control areas, the information level was considered a sufficient basis for decisions. In new areas contemplated for control, the degree of group interest in presenting alternatives, and not an unavailability of information may have been important. Policy makers sought out existing information and expertise in these cases, rather than commission *de novo* research into alternatives.

The potential for change usually occurs in areas where there are already extensive practices and stakeholders and therefore a high degree of interest and pressure from both public and private groups. But because these stakeholders are important to central policy makers, the latter are unlikely to originate change which is radically different from that conceived of by the stakeholders. Policy making in the case studied here was thus incremental in central areas. Even in areas without important stakeholders, more radical changes will be attempted only infrequently precisely because there is insufficient interest or pressure, in the absence of highpowered private interests. The

issue of information disclosure was imposed on MAFF by the development of central Government policy, and whilst it had to be introduced in the legislation, as much as possible was done in the administrative phase to accommodate the views of the pesticides industry and the regulators.

Policy making took place not only under a rule of conservation of existing practices and controls, but also under a rule of preservation of existing decision making style. The discretionary and private nature of ACP, SSC, PRSD and company decision making was preserved, and much decision making which could have been more public was elaborated in closed working groups. Information about the basis of ACP decisions was made available only *after* decisions had been made. Many groups would have liked to be represented on committees making, or overseeing the making of, decisions. Unfortunately the parliamentary phase (Chapter 7), at which the greatest number of alternatives were available and the most wide ranging discussion could have taken place, was also the time when the Government was being uninformative about their thinking. They did not discuss alternatives, only acknowledged them.

The sequence of activities in rational and prescriptive decision making models is regarded as highly important, for example Open University, 1984. It is assumed that, no matter how informal or implicit activities are in the real world, this sequence is still important for the course and outcome of decision making. Situational constraints such as established controls, or Government practices such as preserving the form of the original Bill to the greatest extent possible in the parliamentary phase, will influence the sequence of activities in probably irreversible ways. For example, after the parliamentary phase it would have been extremely difficult to re-set objectives. Also, established practices with their inbuilt measures of performance having been accepted before objectives were considered, limited the range of future objectives to those compatible with them.

Established practices are more important than normally recognised in policy making. If research concentrates only on current events, implementation may often appear to precede policy, whereas in fact it may embody previously unspoken, unformulated or unpublicised policy which only becomes articulated in the public arena when Government decides to take action. If the framework of analysis incorporates implicit and informal items, and if the historical record (supplemented by interview data) is such that it is possible to discern these, then policy will probably be seen to precede implementation, although it may only be articulated after it. The original "policy-action" only appears to be restricted to action because of the lack of a broad policy associated with it, and the lack of a range of alternatives from which it can be seen to have been chosen. This kind of policy-action can also be seen to be action taken as the result of a severely limited policy analysis taken by one sectoral actor to be compatible with his/her operating situation. Thus a divide between policy and action is difficult to perceive.

When we take multiple actors and the history of established practices and participants into account it may well be that *someone's* policy always precedes action. That policy may not be formulated, or officially announced, or passed to those central policy makers inclined to announce policies. Indeed there is no need to announce a particular person's or group's policy-action as policy unless the debate becomes more public and there is a need to appear organised and purposeful. For example, the evaluation document which regulators developed on their own initiative was taken over by central policy makers and presented as new policy. In all areas of practice, a multitude of policies and actions by many non-central policy makers could contribute to the "policy" of central policy makers. This argument does not constitute a fundamental disagreement with Barrett and Hill's (1984) argument that action sometimes precedes policy, but rather suggests that which precedes what depends on the point in time at which a particular analysis commences. Also, since the "divide" is indistinct, it may not be very useful as a conceptual tool until what constitutes "policy" and "action" is more highly specified for a variety of contexts.

This thesis supports incrementalism by successive limited comparisons, as posited by Lindblom (1965), as the dominant mode of policy making for pesticides control in a legislative context. Decisions taken on controls avoided challenging important participants. In the case of the pesticide approval system for example, the *status quo* with respect to agrochemical producers was laid down as the first position. This was followed by consideration of evidence from other important sectors (such as farmers and non-agrochemical pesticide producers and suppliers) of perceived adverse consequences for themselves of pursuing the *status quo* (but not other evidence). This in turn was followed by administrative adjustments, after the parliamentary phase, to accommodate these concerns.

The reluctance of the Government to spell out objectives on the basis of which radical alternatives could be proposed, also fits this style, as did their eventual acceptance of an amendment specifying objectives based on the objectives of the existing pesticides control system, the PSPS.

An appearance of political rationality and a comprehensive consideration of alternatives was given by the collation of wide ranging consultation responses. However the only options considered seriously were those which would be incremental *in effect.* A *range* of incremental options may have been considered, but this was not broad or comprehensive. This thesis therefore agrees with Smith and May (1980) that in the real world, incrementalism and rationalism converge. Etzioni's "mixed scanning", at least in single-issue areas, is really only a rational-comprehensiveness within narrow limits, and thus is also incrementalism, or at best satic ficing (see Simon 1983). If we consider sectors, another way of looking at this would be to say that it is incremental because the "political rationality" extends only towards the consideration of evidence presented by certain sectors.

Where issues have a technological component, and where the degree of certainty over policy alternatives being considered is high, the degree of open-ness to less central policy makers is low. A corollary of this is that in more technical areas, an hierarchical relationship between policy makers and technical regulators probably does not exist or may be reversed.

Approach to Participation: Admission to the Debate. The political rationality of pesticide control policy making is more comprehensive than that inherent in most prescriptive frameworks, but inevitably less effective than one that attempted to incorporate plural views of the situation. Given that the decision processes of central policy makers could never be truly representative of these plural views, the early involvement of a wide range of interests would encourage a closer approximation to political rationality. This means that procedural aspects carry more potential than substantive ones to influence positively political rationality.

The attempt to introduce a wide ranging system description and problem framing stages at the beginning of some prescriptive approaches recognises the importance of *early* recognition of existing practices and the views of participants, but the analysis will inevitably still be able to serve certain political interests selectively, since single analysts cannot replace involvement of a plurality of participants. Thus the beliefs and capabilities of the analyst chosen are important in these respects. Again, as for prescriptive approaches, what is important is the sequence of activities and the earliness and breadth of involvement of participants.

Lindblom's (1977) and Wildavsky's (1980) view that a multiplicity of participants, or politics, raises the quality of debate through alternatives being better known (perhaps eventually leading to public choice), were not demonstrable in the case of the FEPA. The debate during the parliamentary phase, whilst wide-ranging, took place with little indication from the Government of their intentions, and did not influence policy making choices, at least not in an immediate or obvious way. Hogwood and Gunn (1984), Walkland (1968) and Richardson and Jordan (1979) all write that the policy making process is largely non-parliamentary in the UK, involving confidential discussions between recognised groups and Government departments. In this case, even though there was a parliamentary phase, the trend was for the Government to allow a one-way flow of information from participants to themselves. The result was that the quality of public debate was low and decisions were kept to confidential discussions after the parliamentary phase, as we saw in Chapters 7 and 8. The Government continually mentioned their preference for "not pre-empting" later consultations.

The Government took on board problems, as framed by certain participants, with respect to their effects on the part of the control system with which they were concerned. When the decision to legislate to control pesticides was taken, only those sectors which had been affected by the problem were involved in early consultations. Consideration of other areas by the civil servants preparing the legislation only

extended to the general areas of activity they needed to take powers to control, for example manufacturing, use, storage etc. Admitting a wider range of participants earlier in the process may have changed the original content of the legislation or widened the appreciation of the potential effects of controls. In terms of 'analysis of options' (given the incrementalist style and that the policy-actions of regulators preceded the policy of central policy makers), the analytical work could be said to have already been completed by a limited range of partisan participants, as in Lindblom 1979. In the case of the form of the document on manufacturers' test data to be released to the public, that promulgated by the regulators (the evaluation document), was chosen over that proposed by the manufacturers (the "Draft PRD Publication").

Participant emergence and access, and the informal rules which govern this, are important determinants of policy. The degree to which there is regular informal access as opposed to formal opportunities for participation in the most public phases, governs the nature and extent of their influence in shaping policy. As a consequence, there is a premium on gaining access to the more private and informal, but strictly guarded, decision making arenas, and therefore lobbying to this end.

The formal consultation process which took place on the regulations, had more time and was more open. In some cases new areas were considered. Again, this was after a great deal of scene-setting had taken place, but with new issues, there was the time properly to consider alternatives. At this stage, policy makers actively sought out inputs on alternatives for training implementation.

The operation of "closed policy communities" (Richardson and Jordan, 1979), is facilitated by the closed informal nature of the consultation exercise. *Access* to the consultation was non-discriminating (that is it was open to all interested groups). In this way the *procedure* for participation was satisfactory. However the degree of influence wielded by less central participants through this apparent equality of access, could never have been equal, given the enormous number of choices that had already been made. An appearance of "Partisan Mutual Adjustment" was given by the consultation exercise, which in fact enabled closed decision making, through a Lindblom-style (1979) "pluralism" inherently biased with respect to particular sectors. Groups not recognised as important did not remain outside the administrative process, as Brickman *et al* (1985) suggest. However, their influence was probably marginal. This thesis supports Brickman *et al* in their assertion that the informality of the consultation process allows Government officials to regulate the flow of information among interested parties. Again, they mediate the breadth of alternatives considered and the choices made, whilst appearing to support effective participation. However, within this process, civil servants *could* undertake consideration of more radical alternatives, given that they have the opportunity to see a wide range of alternatives without the scrutiny of important sectoral participants or the Government. However this is unlikely to result in radical choice, because of lack of interest and the need for

openness in appealing for resources.

In the situation examined for this thesis, certain practices or implicit policies influencing participation were seen to operate. Public debate was avoided when an unpopular control measure was introduced (access to manufacturers' registration data) by introducing an amendment without forewarning, towards the end of the parliamentary phase, when the potential for change or informed argument was low. Priority was given to participants in the existing practices and controls when policies were being developed which might affect their *modus operandi*. This included the pesticide industry and their regulators (the latter being assumed to possess the most relevant technical expertise). This could be a general pattern, or one which is more likely to arise where there is insufficient time to develop policy. Consultation and the search for alternatives was wider where there was no *status quo* in terms of established participants or practices, for example in the case of training of users; and in other areas when a high degree of certainty over basic choices had already been developed. Alternatives which did not seriously challenge the operability of choices were disregarded. Even in the case of training, which was not incorporated in the existing pesticide control system and where little external pressure existed, the alternatives sought were still those which might be based on *existing* practices.

The Legitimacy of Policy Making. The legitimacy of policy making in developing pesticides regulations during the legislative process is assumed to be largely determined by participant satisfaction with it.

In general, non-agrochemical pesticides manufacturers, as well as other private interests and environmental groups, would have been happier with a process of legislating for the control of pesticides which gave them the opportunity to become involved in the problem framing stage of policy making. Being brought in at a stage where the focus was on the likely effects of alternatives already chosen and how to minimise the problems contingent on them, was not seen as acceptable. The extent of previous negotiations with some sectors, like the BAA, had decreased the value of involvement for these sectors. However particular groups, like the NAAC, were satisfied with the results of such lack of consultation in that they were given access to the more private decision making arenas, where they could have a more long term impact. At the proposals stage of the Bill this general concern was compounded by the lack of time available as this affected the quality and comprehensiveness of participants' inputs. The concern was further compounded by the quality of the public debate which was frustrated by the lack of openness about decisions or at least about current thinking on issues with respect to potential controls.

Satisfaction with the process thus varied with (a) perceived extent of disclosure and whether disclosure was concurrent or belated; (b) the timing of access (before or after decisions); (c) the overall timing of, and time given to, participatory access; and (d) the perceived extent of consideration by central policy makers of alternatives

offered by participants. Participatory effectiveness is closely linked to participant satisfaction with procedures, but the actualities of timing and extent of consideration of alternatives offered are important. It was not possible to determine the extent of private consideration of alternatives, only to infer effectiveness from whether chosen alternatives or arguments in support of chosen alternatives reflected a variety of inputs. Legitimacy in the policy making process during regulation formation was unsatisfactory from the point of view of public interest groups and most private interest groups. Some private groups later felt vindicated through being incorporated into closed decision making. Some private groups were not concerned with legitimacy for all or even for themselves in the public procedures, because they were already involved in the closed processes.

Regulation formation, if it is to be more democratic, demands a more participative and substantive base to allow evidence absorption, resulting in a fuller consideration of alternatives and the development of a guiding overall policy position in the knowledge of the systems involved. To achieve this, policy decision making would need to be less conditioned by existing factors and established procedures for involvement, which come into play only at times when they are most likely to be ignored because of time and focus factors. Policy decision making would need to involve wide and early consultation. A more proactive approach to pollution control would be required which incorporated exploration of the whole system, relevant actors and their interactions in a participative way. Even if the latter did not warrant immediate change, there would be a better-prepared base of knowledge to inform policy decision making with a view to change at a later date.

Although policy decision making will always be conditioned by existing factors, it should be possible to foster participant satisfaction, even in incremental change. However the impact of all other factors on participant satisfaction and effectiveness relies largely on the particular policy makers chosen for (or already in) the job, these being political choices.

Since existing practices and controls condition later comprehensiveness, analysis of alternatives should ideally have taken place before the original implementations. If comprehensive planning and participation were introduced in advance, the need felt by some for radical change might not arise, and the inevitable incrementalism might be acceptable.

Limitations of the Analysis and Suggestions for Further Research. This analysis was limited to events occurring after the decision to legislate because of the starting date of the research. It would therefore have been difficult to explore the degree and nature of company and civil servant involvement in shaping the opinions of the Brussels bureaucracy, although it might have been easier to gain access to the latter than to Whitehall. The insights gained might have led the analysis into interesting areas of participation and decision making at the EC level, and comparisons with UK

processes.

The research was broad based in terms of the initial range of issues examined, and sectors interviewed. This design led to a very rich picture of the complexity of policy making in the presence of many political participants. However the later decision to focus on a smaller sample of issues (necessitated by the bulk of data generated) may indicate a more manageable course whereby a few participants relevant to a small number of issues are each interviewed more frequently. An even richer analysis might result, although it is possible that a greater level of detail would not be forthcoming from the interviewees concerned.

The research reported here could be developed to examine UK and European approaches to controlling risk-related technologies. Comparisons could be made between the patterns of participation inherent in controlling an established (the pesticide) industry, and those apparent in the control debate on the newly emerging biotechnology industry.

Postscript: European Influences on the Development of UK Pesticides Controls. Although the timing of the FEPA was catalysed mainly by extant trade and competition obligations arising from the Treaty of Rome, the decision to legislate and the content of the legislation was influenced by anticipated future requirements from proposed and adopted Directives.

Before the FEPA, UK controls over pesticides had been reactive, voluntary, non-standardized and flexible. Responses to European legislation had been to do the minimum, without recourse to primary legislation. The UK used a derogation for DDT uses beyond the binding date of 79/117 (which prohibited its marketing and use), later withdrawing these under the PSPS without introducing legislation. Directive 76/895 establishing MRLs and monitoring was optional, and Britain chose not to comply. The UK was the only Member State which argued to continue a provision making the 1986 Residues Directives optional, having continued PSPS arrangements only for food intended for domestic consumption. The UK did produce secondary legislation implementing 78/631 on classification, packaging and labelling before the binding date, but only as this had already been implemented by the PSPS.

As described in Chapter Five, the UK Government had resisted EC pressure to make the voluntary scheme statutory until it became clear that the former was being undermined by an increasing awareness of EC opinion. In fact, the changes the EC wanted in this regard could have been accomodated by secondary legislation. FEPA and COPR represent a new anticipatory response to the EC through the introduction of primary legislation and more explicit regulations. In theory this reduces flexibility and administrative discretion in the area of residues controls. However a lot of room to manouvre has been reserved to develop the detail of the regulatory science demanded of industry. It remains to be seen whether this discretion will be used to further the harmonisation of pre-market notification protocols.

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Appendices

Appendix 2.1: General Controls on Pesticides.

General legislation on the manufacture, use and sale of chemicals in the UK is contained in the Health and Safety at Work *Etc.* Act 1974 (HSWA, Cap 37), the Control of Pollution Act 1974 (COPA, Cap 40), the Consumer Safety Act 1978 (CSA, Cap 38); and Part I of the Food and Environment Protection Act 1985 (FEPA, Cap 48).

The HSWA is primarily concerned with chemicals as a potential source of danger to people at work, and hence their protection. It places a duty on manufacturers, importers and suppliers of substances for use at work: (a) to ensure that the substance is safe and without risks to health when properly used; (b) to have the substance tested as necessary; and (c) to ensure adequate information about these tests (Haigh, 1987). Administration is by the Health and Safety Executive (HSE).

The Notification of New Substances Regulations 1982 (SI 1496) were made under the HSWA and the European Communities Act (1972). They implement the notification portion of the Commission Directive known as the "Sixth Amendment" (79/831/EEC), which adds a scheme of prior notifications intended to anticipate and prevent effects of chemicals on man and the environment. This is done by requiring testing for potential hazards before marketing, and adding a new classification of "dangerous to the environment" to the original Directive (67/548/EEC), whose purpose had been solely to protect people.[1]

The HSWA also places a duty on employers to secure the health, safety and welfare of persons at work, and to provide for the protection of the public from work activities. The Control of Industrial Major Accident Hazards (CIMAH) Regulations 1984 (SI 1902) made under the HSWA and the European Communities Act 1972 implement the "Seveso" directive (Directive 82/501/EC) on major accident hazards (including fires, explosions and massive emissions of dangerous substances) which requires steps to be taken to prevent major accidents and limit those which do occur. These include safety reports, notification of sites, emergency plans and informing the public of the correct behaviour to adopt in the case of an accident. The Seveso Directive extended the powers and duties of the HSE to consider affects on the environment alongside affects on man.

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1 After FEPA, an amendment (SI 890) to SI 1496 came into force on 18 June 1986, making minor amendments to ensure that the UK regulations were in full compliance with the directive and its requirement that manufacturers notify national authorities of the results of toxicological and other tests at least 45 days before being placed on the market (Haigh, 1987). It also details procedures for the classification of dangerous substances according to hazard and risk entailment, and makes provisions for packaging and labelling.

The COPA is primarily concerned with chemicals as a potential source of danger to the environment, and contains powers to prohibit or restrict the import, use in connection with trade, or supply for any purpose, of certain substances for the purpose of preventing damage to man or the environment. The Control of Pollution (Supply and Use of Injurious Substances) Regulations (1980, SI 638) made under COPA implement an EC Directive (76/769/EEC OJ L262 27:09:76 as amended by 82/828/EEC) restricting Polychlorinated Biphenyls and Triphenyls (PCBs and PCTs). In addition, the Control of Pollution (Supply and Use of Injurious Substances) Regulations 1986 (SI 90) implementing a Directive (85/610/EEC) banning new applications of PCBs and PCTs, and the sale of second-hand plant and equipment containing such, were introduced in 1986.

The CSA is mainly concerned with protection of the consumer, and contains powers to ensure that goods are safe and to make orders prohibiting goods which are not safe. The Dangerous Substances and Preparations (Safety) Regulations 1980 (SI 136) made under the CSA implement EEC directive 76/769/EEC for chloroethylene in aerosols, and also Directive 79/663/EEC banning trichloroethylene, tetrachloroethylene and carbon tetrachloride in ornamental products, and Tris (2,3-dibromopropyl) phosphate in certain textile products known to be in contact with skin.

Part I of FEPA contains broad emergency powers to prohibit farming, fishing and food preparation in the event of an escape of a substance likely to create a hazard to health through human consumption of food.

Appendix 4.1: Letter to Private and Public Interest Groups.

I am a PhD research student studying policy aspects of pesticides control, particularly in relation to the Food and Environment Protection Act (1985). I worked on the Bill during its passage in the House of Commons for Mr DN Campbell-Savours MP.

I am gathering information from the organisations who were involved in the legislation, regarding the nature and extent of their involvement and the issues with which they were particularly concerned.

I would like to come and talk to you in the near future, and will telephone you shortly to see if this would be possible, and to arrange a date. In the meantime, I would be grateful if you could send me a copy of your response to the MAFF Consultative Document on the pesticides regulations and, if you prepared one, a copy of your response to their outline of proposals for legislation. I would be happy to send you a copy of the response which my supervisor Joyce Tait and I prepared, if this would be of interest.

I must stress that I am writing and working on my own behalf only.

Appendix 4.2: Letter to MPs on Standing Committee H.

I am a PhD research student studying policy aspects of pesticides control, particularly in relation to the Food and Environment protection Act (1985). I worked for Mr DN Campbell-Savours MP on the Bill during its passage in the House of Commons.

I am writing to all members who sat on Standing Committee H which considered the Bill, and I would like to come and talk to you at some time in the near future, with respect to your involvement in the legislation and the subjects with which you have been particularly concerned.

I would be grateful if you could send me a letter indicating whether this would be possible. I would then telephone you to arrange a date

Appendix 4.3: Letter to MPs with Apparent Interest in Pesticides.

I am a PhD research student studying policy aspects of pesticides control, particularly in relation to the Food and Environment Protection Act (1985). I worked for Mr DN Campbell-Savours MP on the Bill during its passage in the House of Commons.

I am writing to all members who appear to me to have had an interest in the legislation, to try to discover the extent of their interest, and therefore whether it would be appropriate (and acceptable) for me to come and talk to you with respect to your involvement in the legislation.

I would be grateful if you could send me a letter outlining the extent of your interest and whether an interview would be acceptable to you. I would then telephone you to arrange a date.

Appendix 4.4: Interest Group Responses to Requests.

Interest Group	Response To Interview Request	Response To Written Material Request
AAWNTG	+	+
AEA	+	+
BAA	+	+
BASIS	+	-
BPCA	+	- then +
BWPA	+	-
CA	+	+
CFoI		+
FFPS		+
FoE		+
GA	+	did not prepare
LFC		+
NAAC	+	-
NFU	+	-
NSCA	+	+
OXFAM		+
PHIPCO		+
RSNC		+
RSPB		+
SA	+	+
UKASTA	+	-
WL	+	+

Appendix 4.5: H Committee MP's Responses to Request.

MP	Response (Whether and Type)	Interview
V. Bottomley	+ : -	
D. Campbell-Savours	+ : +	+
J. Carlisle	+ : -	
D. Clark	- :	
R. Davies	- :	
J. Farr	+ : -	
D. Heathcote-Amory	- :	
G. Howells	- :	
B. John (J. Wilson pp)	+ : +	+
P. Lloyd	+ : +	+
M. Lord	+ : -	
J. Maynard	+ : +	+
T. Skeet	- :	
L. Stevens	- :	
R. Thomas	- :	

Appendix 4.6: MP's Responses to Query about Pesticides Interest.

MP	Reply
D. Alton	+
K. Carlisle	+
S. Chapman	+
F. Cook	-
D. Crouch	-
J. Cunningham	+
T. Dalyell	-
E. Deakins	+
K. Eastham	-
N. Foreman	-
R. Freeman	-
N. Godman	-
P. Hardy	+
D. Hogg	+
S. Hughes	-
A. Kirkwood	+
P. Mills	-
H. Munro	-
M. Rees	+
H. Rossi	-
J. Wells	-

Appendix 4.7: Round One Interviewees.

Private Interest Groups

British Agrochemicals Association
Director (2 formal interviews and many informal)
Industry Executive (informal interview)

National Farmers Union HQ
Technical Officer servicing Parliamentary and Technical Machinery Committees (formal interview)

British Agrochemicals Standards Inspection Scheme
Chief Executive (formal interview)

British Wood Preserving Association
Director (formal interview)

British Pest Control Association
Executive Director (formal interview)

United Kingdom Agricultural Supply Trade Association
Agrochemicals Executive (1) (formal interview)
Agrochemicals Executive (2) (informal interview)

National Association of Agricultural Contractors
Secretary (formal interview)

Agricultural Engineers Association
Technical Director (formal interview)

Public Health and Industrial Pesticides Council
Chairman (informal interview)

Agricultural and Allied Workers National Trade Group of the TGWU
Head of Legal and Health and Safety Section (formal and informal interviews)

Public Interest Groups

Green Alliance
Parliamentary Officer (formal interview)

Soil Association
Pesticides Researcher and Campaigner (formal and informal interviews)

Consumer's Association
Manager of Campaign Unit (formal interview)
Parliamentary Advisor of Campaign Unit (formal interview)

National Society for Clear Air
Editor/Information Officer, Public Relations (formal interview)

Wildlife Link
Secretary (formal interview)

Fauna and Flora Preservation Society
Bat Conservation Officer (informal interview)

Royal Society for Nature Conservation
Conservation Officer (informal interview)

OXFAM
Public Affairs Officer (many informal interviews)

Friends of the Earth
Countryside (Pesticides) Campaigner (many informal interviews)

Campaign for Freedom of Information
Director of Campaign Management Committee (informal interview)

London Food Commission
Campaigner (informal interview)

Royal Society for the Protection of Birds
Advisors in Conservation Management Advisory Unit (informal interviews)

MPs

Dale Campbell-Savours MP (Labour; Workington) (formal interview)

Joan Maynard MP (Labour; Sheffield - Brightside) (formal interview)

Peter Lloyd MP (Conservative; Fareham) (formal interview)

Research Assistant to Brynmor John MP (Labour; Pontypridd) (informal interview)

Other

Salingbury Casey Ltd.(Government affairs consultants)
Advisor to the BAA (informal interviews)

Appendix 4.8: Round One Interview Guidelines.

1 The Organisation (semi-structured)
1.1 Structure
1.2 Aims
1.4 Interests Represent

2 Involvement With FEPA (semi-structured)
2.1 Timescale and History Of Legislation
2.3 First Involvement
2.4 Development Of Issues
2.5 Specific Involvement
2.6 Priority Of Issues/ Legislation

3 Interactions (open discussion)
3.1 Extent Of Interaction With Others
3.2 Extent Of Cooperation
3.4 Effectiveness Of Organisations

4 MAFF (open discussion)
4.1 Policy Objectives in Legislation
4.2 Positive and Negative Features Of Legislation
4.2 Achievement of Aims
4.3 Effectiveness

5 Evidence (open discussion)
5.1 Nature Of The Evidence Offered
5.2 Access/ Dialogue
5.3 Satisfaction/ Constraints

Appendix 4.9: First Approach Letter to Heads of Departments.

It is now some time since I last contacted you in connection with my PhD research on the Food and Environment Protection Act (1985) and the Control of Pesticides Regulations (1986).

I would appreciate it if we could now meet again, and also would like to ask your help with my plans to interview some others in your Division. I propose writing to the following: [NAMES]. A copy of this standard letter is enclosed. I would be grateful if you could indicate support for these interviews to the appropriate people.

The interviews should take approximately one and a half hours each. The subject is the pesticides section of the FEPA(1985) from the initiation of the legislation to the publication of the main set of Regulations in 1986.

The interviews will be confidential, and individuals will not be quoted by name without permission. The material gathered will be used solely by myself in the preparation of my PhD thesis. The interviews are not part of a statistical survey.

I would be grateful if you would consider a date between [DATES], and I will telephone soon to see if we can arrange a meeting.

Appendix 4.10: Letter to Round Two Interviewees.

I am a postgraduate student in the Technology Faculty at the Open University, studying the Food and Environment Protection Act (1985) and the Control of Pesticides Regulations (1986). My interest is in the pesticides part of the Act, from the initiation of the legislation in 1984 to the publication of the regulations in 1986.

Mr[NAME] has suggested that I talk to you in your role as [ROLE]. I would like to talk to you about your contribution to decisions made during this time. The interview will be confidential, and you will not be quoted by name without permission. The material gathered will be used solely by myself in preparing my PhD thesis.

The interview should take approximately one and a half hours. I would be grateful if you could find a date, preferably between [DATES], and I will telephone you soon to see if we can arrange a meeting

Appendix 4.11: Round Two Interviewees.

Ministry of Agriculture Fisheries and Food (MAFF).

Headquarters: Pesticides and Infestation Control Division (PICD) (Policy)

Head of Division (Grade 5 - Assistant Secretary)
Policy on all aspects of pesticides control. Special knowledge of Parliament.
(Formal Interview)
Head of Branch A (Principal)
Responsible for co-ordinating the replacement of the voluntary with the statutory scheme for approvals in the preparation of the legislation and regulations. Secretariat to the ACP. On MAFF consultation team.
(Formal Interview)
Head of Branch B (Principal)
Responsible for co-ordinating consultations and preparation of regulations. Coordinated "Bill Team". Policy on residues in the preparation of the regulations. On MAFF consultation team. ACP assessor.
(Formal Interview)
Branch B SEO
(On advice, did not follow up)
Branch B HEO
(On advice, did not follow up)
Head of Branch C (SEO)
Responsible for policy in relation to application and use of pesticides in the preparation of the regulations. Then policy on post approval items: wholesale, distribution storage and training. On MAFF consultation team.
(Formal Interview)

ADAS R&D: Harpenden Laboratory (Science)

Director of Harpenden Laboratory
Responsible for technical advice to PICD and pesticides surveillance and registration functions. Chairman of the Environmental Panel of the SSC. Member of the SSC.
(Formal Interview)

Pesticides Registration and Surveillance Department (PRSD)

Ex-Head of PRSD (Grade 6)
Responsible for pesticide registration functions of risk and efficacy evaluations. ACP assessor.
(Formal Interview)
Head of PRSD (Grade 6)
Responsible for pesticide registration functions of risk and efficacy evaluations. On MAFF's "Shadow Bill Team". On MAFF's consultation team. ACP assessor.
(Formal Interview)
Head of Risk Evaluation Branch A (Grade 7)
Responsible for Applications for approvals; reviews of approvals; liaison with the ACP and SSC. Liaison with companies. On MAFF's "Shadow Bill Team". On MAFF's consultation team.
(Formal Interview)
Head of Technical Services Branch (Grade 7)
(Moved from Country - not followed up)

ADAS R&D: "Slough Laboratories" (including Slough, Tolworth and Worplesdon Labs)

Director of Slough Laboratories
Responsible for R&D on pesticides: storage; environmental effects; vertebrate pest control. Member of SSC; Environmental Panel. Chairman of the Working Party on Pesticides Residues. On MAFF's "Shadow Bill Team". On MAFF's consultation team.
(Formal Interview)

Department of the Environment (DoE)

Headquarters: Central Directorate of Environmental Protection: Toxic Substances Division

Ex-Head of Toxic Substances Division
Involved in the development of the legislation. ACP assessor. Member of Environmental Panel.
(Formal Interview)
Head of Toxic Substances Division and Ex-Head of Chemicals Branch (Grade 6)
Involved in the development of the legislation and regulations. ACP assessor.
(Formal Interview)
Head of Pesticides Unit (Grade 7)
Involved in the development of the regulations. On MAFF's "Shadow Bill Team". On MAFF's consultation team.
(Formal Interview)

Department of Health and Social Security (DHSS)

Medical Toxicology and Environmental Protection Division *Senior Medical Officer* (Grade 5)
Involved in the development of the legislation. ACP assessor. On MAFF's "Shadow Bill Team". Member of SSC; Working Party on Pesticides Residues.
(Formal Interview)

Department of Trade and Industry (DTI)

Headquarters: Industry Sponsorship Department

Chemicals, Textiles, Paper, Timber, and Miscellaneous Manufacturing and Service Industries Division

Head of Chemicals Branch (Principal)
Responsible for representing manufacturers interests in Government. Pesticides exports. ACP assessor.
(Formal Interview)

Advisory Committee on Pesticides (ACP)

Chairman of the ACP
(Formal Interview)

Scientific Subcommittee to the ACP (SSC)

Chairman of the SSC
(Formal Interview)

Nature Conservancy Council(NCC)

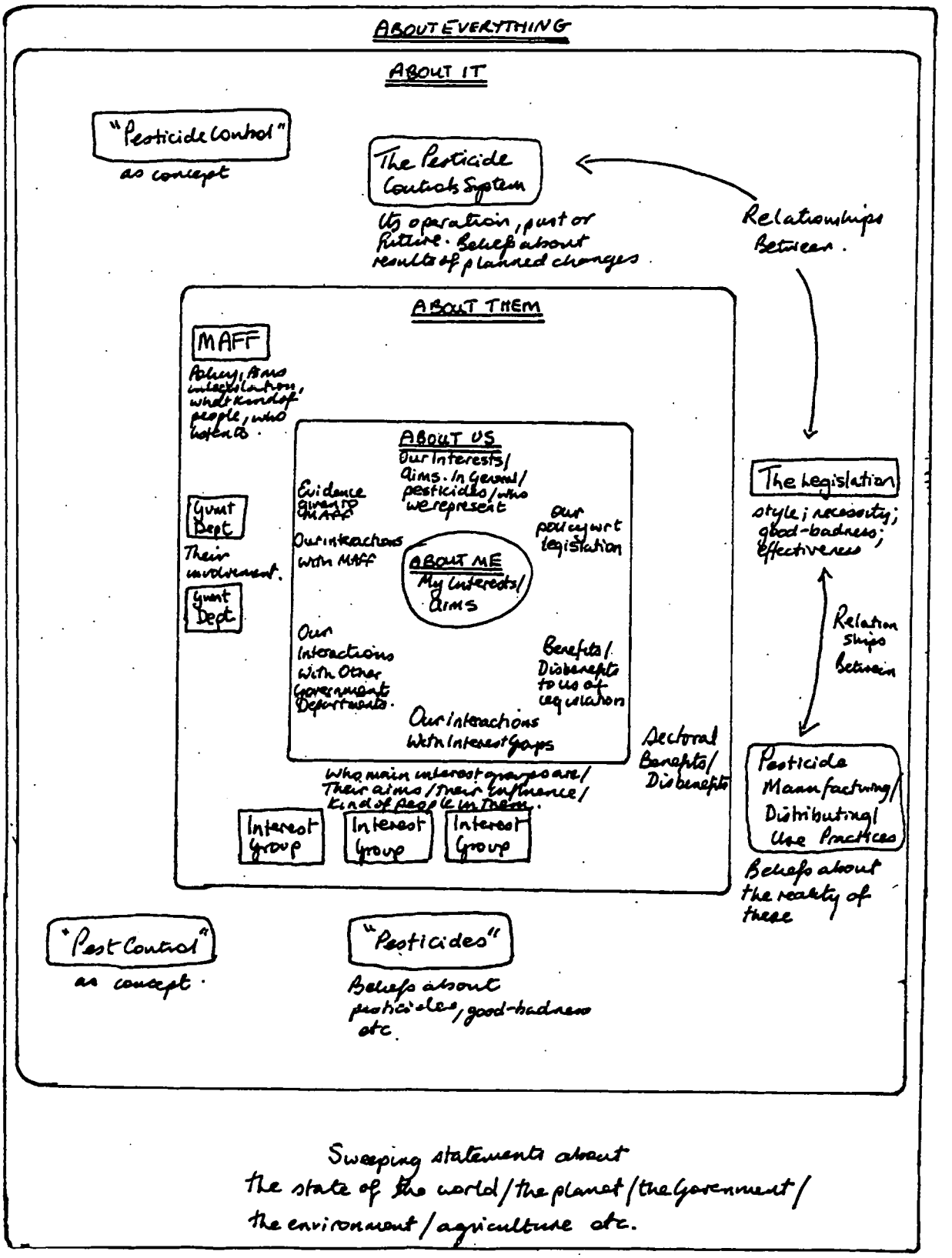
Chief Scientist's Directorate

Pesticides Specialist
Responsible for advising Government on issues related to pesticides and nature conservation. ACP assessor. Member: SSC; Environmental Panel; Working Party on Pesticides Usage Surveys.
(Formal Interview)

Other

BAA Advisor from Round One
(Interviewed in role as Government affairs Consultant in Round 2)

Appendix 4.12: Worldview Template.



Appendix 4.13: Interactions Spreadsheet.

Everyday Relations Associated With Pesticides	Priority Of FEPA And Parts Of Org Involved	Lobbying And Access	Involvement
Memberships	Priority	Parliament	Proposals
Contacts With Government Departments	Part of Org	MAFF	Lords Commons
Contacts With Interest Groups	Who Saw Whom	Membership Other Groups Strategy Consultants	Condoc Regs

Appendix 5.1: Pesticides Recommendations of the 1979 RCEP Report.

Pesticides Usage

Data on the quantities of active ingredients manufactured and sold should be made freely available.

The principal organisations involved should meet with a view to improving the arrangements for collecting and using data on pesticide usage. MAFF should take the initiative in this matter and the results should be published.

The ACP should keep in close touch with the US Environmental Protection Agency on the possible risks posed by the herbicide 2,4,5-T.

The ACP should review the total (agricultural and horticultural) usage of organochlorine pesticides.

Pesticide Resistance.

Resistance to insecticides and fungicides is a matter of serious concern: strategies should be developed to delay the onset of resistance.

Aerial Spraying Of Pesticides.

Advance warning of spraying to occupiers of adjacent land should be mandatory; where this would be impracticable because of the numbers of people involved, aerial spraying should not be used.

The adequacy of present inspection arrangements should be reviewed; consideration should be given to experts from Agricultural Departments taking part in inspections.

The arrangements for advance notification of aerial spraying should be extended to cover Environmental Health Officers of local authorities and the appropriate regional ADAS office (with corresponding arrangements in Scotland and Northern Ireland).

The presence of a "groundmarker" during aerial spraying should be mandatory.

Consideration should be given to the introduction of arrangements for the special assessment, through the PSPS, of large-scale aerial spraying operations.

Policy For Pesticide Use.

It should be a declared policy aim to reduce pesticide usage to a minimum consistent with efficient food production.

There should be increased emphasis on ADAS activities designed to improve the basis on which farmers decide their pest control strategies.

An investigation should be undertaken on the effect that present requirements for food quality have on pesticide usage.

Subsection 3(3) of the Food and Drugs Act should be amended with the aim of reducing the pressures on food processors to produce absolutely pest-free products.

Control Arrangements.

The present schemes for assessing the safety and efficacy of pesticides (PSPS and ACAS) should be combined.

The combined control scheme should be given statutory recognition.

The form and content of the book "Approved Products For Farmers and Growers" should be reviewed with the aim of assisting farmers to choose chemicals that will minimise the environmental impact of pesticides.

The relevant organisations should review the extent to which the booklet reaches farmers and growers; future editions of the book should be provided free to farmers on request.

There is a need for a more organised approach to the assessment of new techniques for pesticide application. Arrangements should be introduced for official efficacy testing of such equipment which should also cover environmental considerations.

Considerably greater effort should be applied to the development of ULV/CDA techniques which offer the prospect of substantial reductions in the amounts of active ingredients used; an integrated approach is required involving Government and industry.

The arrangements concerning confidentiality of data relating to the effects of pesticides should be reviewed; information should not be unnecessarily withheld, especially from those engaged in research in the field.

The role of the Advisory Committee on Pesticides (ACP) should be extended. The ACP should publish periodic reports on its work and should be empowered to advise on research needs in the pesticides field. Consideration should be given to the introduction of a system for reporting on the effects of new pesticides analogous to the "yellow card" system used by doctors.

The DES should review the implications of these proposals for the resources required by the ACP, in consultation with Agricultural and Environmental Departments.

There is a need to develop a professional approach to pesticide application. A licensing and training system should be introduced for persons applying pesticides commercially in agriculture. The implications of such a scheme for operators applying pesticides in non-agricultural sectors would need to be separately considered.

Monitoring surveys should be designed to test the observance of harvest intervals; the use of "spot check" surveys should be considered.

A study should be undertaken with the aim of exposing to public debate the issues involved in the monitoring of pesticide residues and in the contrasting approaches taken on this matter in the UK and other Member States of the European Community.

Research.

Greater emphasis should be placed on the development of new techniques to improve the efficiency of pesticide application.

There should be an expansion of basic research on the factors determining the incidence of diseases and pests and on the measurement of economic threshold levels.

Work on the development of strategies to delay the onset of resistance should be strengthened.

There should be a strong commitment to applying the concepts of integrated control.

Appendix 8.1a: Identical Products Applications Procedure (from Draft Data Requirements).

35. The system for the rapid approval of identical products imported to the UK from the European Community was introduced to assist those wishing to import crop protection products either for their own use or for distribution to others. The procedure applies to imported formulations of crop protection products as packaged and sold overseas, it does not cover bulk imports of unformulated active ingredients.

36. For the purpose of this procedure an imported product is considered to be identical to one already approved under the Control of Pesticides Regulations if:

(a) the active ingredient in the imported product is produced by the same company as the material used in the product already approved (or by a directly associated undertaking) and is the same within variations accepted by the UK Pesticides Registration Department when approving the product; and

(b) the formulations of each are produced by the same company (or directly associated undertaking) and any differences in the formulations as regards nature, quality and quantity of the components are determined by the Ministers to have no material effect on safety of humans, domestic animals, livestock, wildlife or the environment generally.

37. For rapid approval of an identical product proof is therefore required that the product either originated from the company which made the original application, or, from a directly associated company (eg a product marketed in this country by "Agrochemicals UK" may be marketed abroad by "Agrochemicals International (France)" - both companies being part of the same international company group). Evidence which should include details of the packaging, must be provided. Guidance on the provision of this information is at Appendix 3.

38. Information supplied will be verified in part from Registration Department records. However, only the appropriate UK marketing company will be able to provide the Registration Department at Harpenden with the information which will confirm identicality, and to achieve this, some information supplied in the application will have to be disclosed to the UK marketing company. Applicants can be assured that only minimal information will be transmitted to UK companies (ie product name, active ingredient, country from which it is to be purchased and batch number). Details of the applicant and all other information on the form will be treated as confidential and not disclosed outside of Government Departments without the applicant's permission. It is important to note that the supply of all this information and the checks made by the Registration Department may in some cases fail to confirm identicality or may indeed establish that the product is *not* identical. In such instances, approval would have to be refused. Applicants, if they wished, would have to re-apply according to the normal approval procedures which apply to non-identical products, supplying the supporting data necessary under those procedures.

39. Those wishing to import an identical agrochemical *for their own use* should submit their completed application form to Pesticides Branch, Great Westminster House, Horseferry Road, London SW1P 2AE.

Appendix 8.1b: Identical Products Applications Information Requirements (from Draft Data Requirements).

Name of applicant:

Address:

Daytime telephone number:

A. DETAILS OF PRODUCT

1. Name of Product

2. Active ingredient(s) and concentration in formulation

3. Physical condition and nature of formulation (eg solid, liquid, etc)

4. Name of manufacturer

5. Product batch number(s) (if known)

6. Is the product officially registered for commercial use in the country in which it was bought?

7. Registration number in that country (if known)

8. Please enclose a specimen copy of the label from the imported product or alternatively the manufacturers instructions/recommendations.

9. Name and address of supplier (please attach a copy of your invoice).

10. Quantity of product (please specify weight or volume)

B. DETAILS OF PACKAGING AND LABELLING

1. For Distribution

(a) Please attach 5 copies of the label, in English, to be used with the imported product.

(b) In what type of packaging is the product being imported? (eg plastic drum, carton...)

(c) What size are the individual packages?

(d) In what type of packaging will the product be distributed in the UK?

(e) What size will the individual package be?

(f) Address of premises where products are or will be stored?

2. For Own Use

(a) Please attach a copy or a draft of the instructions, in English, to be used with the imported product.

(b) What type of packaging is the product in? (eg plastic drum, carton...)

(c) What size are the individual packages?

(d) Address of premises where products are or will be stored?

C. DETAILS OF IDENTICAL UK APPROVED PRODUCT

1. UK name of product

2. Name of UK manufacturer

3. UK registration number (if known)

D. DECLARATION

I, the above named, hereby apply for approval under the Control of Pesticides Regulations 1986 for the product detailed at A and C above. These details are correct to the best of my knowledge.

Signature.....Date.....

E. DECLARATION - TO BE SIGNED IN ADDITION TO D ABOVE BY THOSE IMPORTING FOR OWN USE

I, the above named, hereby declare that the product detailed is intended for use by myself or my employees on land or premises in my ownership or possession and I will not supply it to any other party.

Signature.....Date.....

FOR OWN USE The completed form should be returned to: Pesticides Branch, The Ministry of Agriculture, Fisheries and Food, Room 681, Great Westminster House, Horseferry Road, London SW1P 2AE.

FOR DISTRIBUTION The competed form should be returned to: Pesticides Registration Department, Harpenden Laboratory, Hatching Green, Harpenden AL5 2BD.

THE ABOVE PRODUCT SHOULD NOT BE USED OR SOLD UNTIL APPROVAL HAS BEEN GRANTED. THERE CAN BE NO GUARANTEE OF A QUICK APPROVAL IN THE ABSENCE OF THE INFORMATION ABOVE.

IMPORTANT: Approval will not be granted by these procedures if it cannot be demonstrated that the product is identical or if the information supplied demonstrates that it is not identical.

Appendix 8.2: PSPS Safety Data Guidance (1979).

THIS SECTION IS NOT INTENDED TO BE A CHECKLIST WITH THE NOTIFIER EXPECTED TO PROVIDE AN ANSWER UNDER EVERY HEADING

NOTIFIERS SHOULD DISCUSS WITH THE TECHNICAL SECRETARY THE TYPE OF INFORMATION THAT WILL BE REQUIRED PRIOR TO MAKING A NOTIFICATION

All available supporting information published and unpublished should be supplied in the form of a summary data sheet, laid out following the general pattern below. Clearly there will be occasions when no entry can be made under some of the headings. For example, for certain industrial applications (eg wood preservation etc) it would not normally be necessary to provide information under all the headings necessary when a product is applied to edible crops. References (using World List or Chemical Abstracts abbreviations) should be given against each summary of published information. Copies of the original reports of summarised unpublished information should be provided, together with the authority for their use by the Technical Secretariat if they originate other than from the notifier.

1. IDENTITY OF THE ACTIVE INGREDIENT

1.1 Chemical name (preferably according to IUPAC nomenclature) and CAS number.

1.2 Formula (empirical and structural), molecular weight.

1.3 Common name, preferably ISO, BSI or others, eg. AFNOR, WSA (Weed Society of America), etc, acronyms.

1.4 Composition of the technical product (purity in percentage, nature and percentage of impurities, isomers).

2. PHYSICAL PROPERTIES OF ACTIVE INGREDIENTS(S)

2.1 Melting point, boiling point, specific gravity, refractive index.

2.2 Vapour pressure in mm Hg at 20oC, volatility.

2.3 Solubility in water of pure active ingredient and technical product. Solubility in other solvents of pure active ingredient and technical product. Distribution coefficient between water and an immiscible organic solvent such as octan-1-ol.

3. CHEMICAL PROPERTIES OF THE ACTIVE INGREDIENT(S)

3.1 Stability in air, effect of light, rate of decomposition, identity of breakdown products, flammability, flash point, composition of explosive mixtures, corrosive nature, thermal degradation, etc.

3.2 Stability in organic solvents used in the formulation(s).

3.3 Stability in water, hydrolysis rate, identity of breakdown product(s).

3.4 Information on other chemical reactions of the active ingredient(s) or the technical product. Reactivity towards container materials.

4. INFORMATION ON THE FORMULATED PROPRIETARY PRODUCT

4.1 Proprietary name of the product or proposed name.

4.2 Physical conditions and nature of the formulation, eg. emulsifiable liquid, emulsion, solution, paste, soluble powder, dispersible powder, dust, granules, size or particles, flammability.

4.3 Detailed information and composition of the technical product in percentage of weight (liquid formulations g/l). Active ingredient(s), solvents, fillers and stickers, emulsifiers and dispersing agents, dyestuffs, wetting agents.

4.4 Stability of formulated product, effects of air, light, temperature, water, container etc, stability in proposed package.

4.5 Suspensibility and emulsifying characteristics.

4.6 Physical compatibility of formulated product with other products with which its use is to be recommended on the label.

5. FORMULATION ANALYSIS (INCLUDING METHODS FOR THE TECHNICAL PRODUCT)

6. APPLICATION

6.1 Field of use:

6.1.1. Agriculture, horticulture and forestry;

6.1.2 Food Storage;

6.1.3 Animal Husbandry;

6.1.4 Aquatic;

6.1.5 Public Health Pest Control;

6.1.6 Household;

6.1.7 Home Garden;

6.1.8 Wood Preservation;

6.1.9 Industrial.

6.2 Function, eg. fungicide, herbicide, insecticide, etc.

6.3 Effects on pests, eg, contact, inhalation poison, stomach poison, fungitoxic or fungistatic etc., whether systemic in plants.

6.4 Pests controlled and crops or materials protected or treated, and a description of how control/protection is achieved together with a note on any foreseen safety advantages over other products.

*6.5 Formulation suitable for the intended use.

*6.6 Concentration of the active ingredient in the material as used (eg. percentage concentration in the diluted spray). Rate of application (eg. in kg/ha of active ingredient).

*6.7 Number and timing of applications (period of growth or season).

*6.8 Method(s) of application (eg. high or low volume spraying etc.)

6.9 Specific phytotoxicity: necessary waiting periods to avoid phytotoxic effects with soil fumigant, persistent herbicides.

* NOTE: For TRIALS notification the information given may be very preliminary and quite different from that given on the eventual label.

7. RESIDUES

7.1 Method of Residue Analysis.

Brief account of residue chemistry, eg. statement of principal residues, including breakdown products. Methods for identification and determination of the above residues; specificity and limits of determination of the method(s). Reagents and apparatus for extraction, clean-up and measurement. Calculation of the result. Information on foodstuff constituents interfering with the methods. Information on the analytical and sample blank values and their variations (Standard Deviation). Recovery data at levels corresponding with those found in practice. The lower limit of determination:

7.1.1 In foodstuffs including plant materials, meat, milk and other animal products;

7.1.2 In water, soil and air;

7.1.3 In wildlife;

7.1.4 In wood, textiles or other treated materials.

7.2 Data on residues in foodstuffs, meat, milk, other animal products, crops and other treated materials:

7.2.1 Treated crop/animal/material;

7.2.2 Environmental conditions of the experiment (eg. soil type, husbandry practice);

7.2.3 Climatic conditions during the application and in the period between application and sampling;

7.2.4 Formulation used, method of application, application rates, number and dates of application (pre- and post-harvest treatment);

7.2.5 Information on the growth of crop/animal, eg. increase of weight of the sampled product between application and each sampling date;

7.2.6 Sampling; storage of sample, pre-analysis treatment of the sample eg washing etc;

7.2.7 Amount of initial residue, residue disappearance curve;

7.2.8 The residue figures presented have been/not been corrected for analytical and sample blanks or recoveries or for both.

7.3 Effects of industrial processes and/or cooking on residues.

7.4 Taint due to normal residues on or in foodstuffs, fresh or after processing, or in water.

7.5 Other residues data, eg. in wildlife, air, water, soil, roof spaces, industrial sites etc. Persistence data in soil and water including disappearance curves.

8. EXPERIMENTAL DATA ON TOXICITY IN ANIMALS

8.1 Acute toxicity in mammals (species and laboratory strain must be stated); brief statement of mode of action eg. uncoupler, inhibition of chlorinesterase etc:

8.1.1 Oral single dose toxicity LD50;

8.1.2 Percutaneous toxicity;

8.1.3 Inhalation toxicity;

8.1.4 Delayed effects in animals which have recovered from a near lethal dose;

8.1.5 Other routes eg. intra-peritoneal, intravenous, ocular etc;

8.1.6 Skin and eye irritation.

8.2 Short Term Toxicity:

8.2.1 Oral administration (up to 90 days);

8.2.2 Allergic sensitization;

8.2.3 Inhalation;

8.2.4 Other routes.

8.3 Supplementary Toxicological Studies:

8.3.1 Toxic effects of metabolites from treated plants and of impurities;

8.3.2 Metabolic studies;

8.3.3 Accumulation of compound in tissue and cumulative effects;

8.3.4 Neurotoxicity;

8.3.5 Mutagenicity;

8.3.6 Reproduction studies including the effect on fertility etc. Teratogenicity and embryotoxic effects;

8.3.7 Long term toxicity and/or carcinogenicity;

8.3.8 Potentiation;

8.3.9 Effects on livestock, poultry etc.

8.4 Toxicity Classification:

8.4.1 Adequate toxicity data to enable classification of the product (see Appendix E WD E1)

9. HUMAN TOXICOLOGY AND MEDICAL ASPECTS

9.1 Human Toxicology:

9.1.1 Mode of action in man;

9.1.2 Health records of occupationally exposed workers, in both industry and agriculture;

9.1.3 Accidental, suicidal etc poisoning cases;

9.1.4 Observations on exposure of the general population;

9.1.5 Experiments with volunteers.

9.2 Diagnosis and Treatment:

9.2.1 Symptoms, specific signs of poisoning;

9.2.2 Laboratory findings, clinical tests, forensic methods;

9.2.3 Proposed treatment: first aid measures, antidotes, medical treatment;

9.2.4 Prognosis;

9.2.5 Information on previously reported cases.

10. INFORMATION ON ENVIRONMENTAL AND WILDLIFE HAZARDS

10.1 Toxicity to birds:

10.1.1 Acute toxicity;

10.1.2 Other information on harm to avian species eg. population studies, impaired fertility, residues in tissues of dead or living birds or their eggs.

10.2 Toxicity to fish:

10.2.1 Acute toxicity;

10.2.2 Other information on direct harm to fish, eg fish kills, population studies, residue studies;

10.2.3 Effects on water quality, fish food and other aquatic organisms.

10.3 Harmful effects on other wildlife, mammals, amphibia, reptiles.

10.4 Toxicity to honey bees.

10.5 Toxicity to beneficial insects, etc.

10.6 Field trials and observations.

10.7 Toxicity to earthworms and other soil invertebrates, changes in soil ecology, microorganisms etc.

11 INFORMATION ON EXISTING CLEARANCES

11.1 In other countries

11.2 Tolerances.

Appendix 8.3: Suggested Humaneness Data Requirements (from Consultative Document).

1. Time to unconsciousness

2. Degree of activity prior to unconsciousness eg hyperactive/inactive, stereotyped behaviour/ abnormal startle response.

3. Muscular control eg severe convulsions/total/partial paralysis.

4. Nervous control eg co-ordinated/unco-ordinated.

5. Respiration eg rapid/intermittent.

6. Vocalization eg distressed/silent.

7. Pelage eg "spiky" fur, ruffled feathers.

8. Abnormal posture eg hunched up, prostrate.

9. Defaecation - excretion and urination.

10. Vomit and nature of vomitus.

11. External discharge eg pus, blood.

12. Irritancy eg scratching, grooming, licking.

13. Response to food/water eg anorexia, thirst, inability to feed or drink.

14. Post-mortem examination.

Data submitted will be based on a minimum number of observations of these and perhaps other aspects of behaviour and there will have to be some form of "rating" of observations related to the severity of different reactions. Any rating system will of course need to reflect the latest informed opinion but it will need to be related to factors such as the ideal time to unconsciousness and the proportion of animals having achieved this ideal and acceptable degree of adverse symptoms observed. The minimum number of observations will need to be determined on the basis of providing sufficient data from which reasonable conclusions on the humaneness of a product could be drawn. The number of observations will also need to be related to other laboratory data submitted, but a specific minimum amount of humaneness data will be required. Any system eventually agreed will be applied to all new product approvals and those existing approvals to be reviewed in the future.

Appendix 8.4: Possible Efficacy Data Requirements (from Consultative Document).

(i) The level, duration and consistency of protection or other intended effect(s) appropriate to the desired objective(s) of treatment in the recommended manner and at the recommended time, including the effects upon the activity of the product of normal variation (see viii, below);

(ii) any deleterious effects on the surface/substrate/animals/crops to be treated;

(iii) the yield and/or quality of treated plants or plant products and/or suitability of treated products/premises for their intended uses;

(iv) the compatibility with different cultural, storage or other appropriate practices and other preservation, crop protection, pest control or animal husbandry measures under the conditions of use envisaged;

(v) advantages of the product or its manner of use which may compensate for any deficiencies in level, duration or consistency of the intended effects (eg control of strains resistant to other pesticides);

(vi) unintended effects, eg on non-target organisms, on succeeding crops, other plants and parts of treated plants used for propagation purposes (eg seeds, cuttings, runners etc), on organoleptic properties of plant products or food, on materials, crops or plant products in adjacent or nearby areas;

(vii) suitability of the physical properties of the product for the uses for which it is intended, including the retention of these properties and stability of the active ingredient after storage (normally for 2 years);

(viii) the effect on all of the above of appropriate variables, such as climate, temperature, humidity, nature of treated surfaces, porosity and pH of substrate(s), cultivar(s), crop growth state and vigour, stage of development and strain of pest, soil type and condition etc and, in the case of baits, acceptability/attractiveness to the pest organism;

(ix) the effect which use of a particular product is likely to have upon general resistance levels;

(x) any other relevant factors.

Appendix 8.5: BAA's Information Disclosure Proposal.

Introduction Full commercial clearance has been granted to (company) for their insecticidal/herbicidal/fungicidal product, (name of product). The product contains X gms/litre in an emulsifiable concentrate of (chemical name) and is cleared for the control of (pest/weed/disease) in (crop(s).

Common name ——————

Chemical name ——————

Physical and Chemical Properties ——————

physical state

purity

molecular weight, vapour pressure, boiling point, solubility, hydrolytic stability, etc.

Toxicity - Technical Material - acute orals, acute dermals, acute inhalational, primary eye irritation, primary skin irritation, dermal sensitization, chronic toxicity - e.g. "In a 6-month dog-feeding study, the no-effect level was 120ppm. Where rats and mice were fed a diet containing (chemical name) for two years, the no-effect level was 120ppm for mice and 360ppm for rats. In studies conducted in rats up to levels of 250mg/kg and in rabbits up to levels of 160 mg/kg teratogenic effects were not observed. In various studies with this compound in rats and mice, no mutagenic or oncogenic effect was observed."

Formulated product - acute oral, acute dermal, primary eye irritation, primary skin irritation.

Environmental data e.g. acute oral LD50 mallard duck, 8-day dietary LC50 (96 hour) bluegill sunfish and rainbow trout, LC50 (48 hour) Daphnia. e.g. "The chemical has short persistence in the environment. Under laboratory studies, it has shown a half life of 12 days in moist loam and 26 days in heavy clay soil. Under various field conditions, no residues were detectable 120 days after treatment. Due to rapid hydrolysis and photolysis, persistence in water is not a problem."

Residues and metabolism e.g. "Residues in the crops were tested below the level of detection of 0.05ppm. Rats fed radio-labelled compound excreted 97% of the administered radioactivity in the urine and faeces in two days. In lacerating goats all the administered radioactivity was excreted in urine and faeces one day after the administration of the final dose."

Registered uses incl. crops, time of application, use of adjuvants, dosage rates.

Appraisal: Operators - e.g. "The Xgm/litre formulation of ——— notified is considered harmful if swallowed and irritating to eyes and skin. The label requires the use of protective gloves and face shield when handling the concentrate. It is also recommended that ——— is scheduled under the relevant regulations as a Part III substance. A possible problem is that the spray strength dilution is a wild eye irritant which causes severe initial pain, which can be obviated by the use of a face shield when spraying."

Consumers ——— has been notified for application to —— and ———. Application is at x gms ai/ha with a 14-day pre-harvest interval. The indications are that residues will be 0.1 mg/kg or less at harvest.

Precautions - keep out of reach of children. May cause irritation of eyes and skin. Avoid contact with eyes and skin. Do not take internally. Avoid inhalation of vapours or spray mist. Wash thoroughly after handling.

First Aid This product contains a petroleum distillate; therefore if swallowed, do not induce vomiting. Get medical attention immediately. if patient is unconscious, give aid. In case of eye contact, wash with clean water for 15 minutes and get medical attention. In case of skin contact, wash with soap and water.

Appendix 8.6: Information Disclosure Procedure (PICD Note).

INFORMATION TO BE MADE AVAILABLE UNDER REGULATIONS

3. Our intention is to make available, under safeguards, evaluations based on those prepared by the MAFF's Pesticide Registration and Surveillance Department and the Health and Safety Executive's Employment Medical Advisory Service for the Scientific Sub-Committee (SSC) and the Advisory Committee on Pesticides (ACP). The aim is that these evaluations should be sufficiently detailed to satisfy the great majority of enquirers without recourse to study reports, while still protecting commercially sensitive information.

PREPARATION OF EVALUATIONS

In preparing evaluations for scrutiny by interested members of the public it will be necessary to avoid speculative comments, misleading phraseology and sensitive commercial information such as formulation details. In order to edit the evaluations in this way, the following procedures will be followed:

(i) It will be open to notifiers to sideline, in *their* summary data sheets, information which they regard as particularly sensitive;

(ii) in drafting evaluations for the SSC the secretariats will do their utmost to ensure that formulation details, speculative discussion and any obviously commercially valuable data is relegated to detachable annexes to the main evaluation; but will ensure nonetheless that the description of the main document is complete in its essentials;

(iii) as a part of their normal scrutiny of the documents the SSC, and later the ACP, will ensure that the evaluation does not contain any statements with which they are not satisfied professionally;

(iv) when Ministers agree to grant a provisional or full approval the notifier will be informed of the terms of the approval and will receive a copy of the evaluation text intended for release (ie with any SSC/ACP amendments but minus any sensitive annexes). The notifier will be invited to comment within three weeks if he wishes to make a case for removing data from the text. *The approval will only become effective once the evaluation is agreed.*

SAFEGUARDS ON AVAILABILITY OF EVALUATIONS

5. Persons wishing to see an evaluation will have to apply to MAFF/HSE in writing stating:

(i) their name, address and occupation;

(ii) the product or active ingredient of interest;

6. They will also have to sign an undertaking to the effect that:

(i) they will not make any commercial use of the evaluation either in the UK or overseas;

(ii) they will not publish any part of the evaluation without the written permission of Ministers; or pass the document on to any other person;

(iii) they understand that any breach of these conditions would be a criminal offence under the Act.

Departments will keep publicly available a register of names and addresses of successful applicants for evaluations, and the documents issued.

ACCESS TO STUDY REPORTS

7. In the event of an individual wishing to obtain access to study reports he will need to satisfy the SSC (on appeal the ACP and then Ministers) of the scientific justification for his request. In order to do that he will need to complete a form giving the following information set out below:

Personal Background.

(i) Name;

(ii) brief details of scientific qualifications and current employment, including name of employer;

(iii) source(s) of any funding for any research project on which engaged;

(iv) details of any commercial interests;

Information Requested.

(v) product or active ingredient of interest;

(vi) nature of data requested eg which study report?

Justification For Request.

(vii) enquiry or research project being followed and its aim;

(viii) statement of data sources already explored;

(ix) explanation of why the summary evaluation is insufficient and what the enquirer hopes to achieve by reading a study report;

(x) whether the enquirer has approached the company, or has any objection to his or her request being made known to them.

The SSC will assess the request based on this information and undertakings and will make a recommendation to Ministers accordingly.

8. In the event of the recommendation being in favour of access, the enquirer would be given access to the study report he has identified, and only to that report. For example, if he is interested in the teratogenicity of a compound, he will not gain access to other toxicity data or environmental data. Access will be provided by a reading room facility at MAFF/HSE, with note-taking allowed but no copying. MAFF/HSE will not use their powers to provide copies without further discussion with notifiers' representatives.

9. In all cases where access is provided to a study report the reader will be required to sign the undertakings set out in para 6. Departments will keep publicly available a register of the study reports to which access has been granted, and the names and addresses of readers.

10. A breach of the prohibition on commercial use and publication of evaluations and study reports by their recipients will be a clear breach of Regulation 8(4), and thus an offence under Section 16(12) of the Food and Environment Protection Act. Under Section 21(3) of the same Act an offender is liable to a maximum penalty of £2000 if convicted by a lower court, but an unlimited fine if convicted on indictment in a higher court. Under the terms of Section 16(12) an offender is one who contravenes, "or causes or permits any other person", to contravene the provisions of the regulation. Section 21(6) makes provision for the penalties to attach personally to officers of bodies corporate, as well as to the body corporate itself.

Appendix 8.7: Possible Off-Label Applications Information Requirements (from Consultative Document).

It should be noted that this is not a check list of information which would be required for all products. For instance, in the case of items 6-9 it would be acceptable for an applicant to refer to the conditions applicable to a similar crop; eg if approval was sought for use on cane fruits of a product approved and recommended on the label for use on raspberries, it would be sufficient to state "as for raspberries". Obviously not all cases would be this straight forward but an application under this procedure would not necessarily fail because all questions had not been answered. However the more information provided, the easier it is likely to be for the safety and efficacy of the proposed use to be assessed.

1. PRODUCT (Details as on label)

1.1 Name

1.2 Active Ingredient(s)

1.3 Manufacturer/ Distributor

1.4 Formulation Type (eg granule, wettable powder, liquid)

1.5 Whether Regulated under the Poisonous Substances in Agriculture Regulations

2. PURPOSE OF PROPOSED USE

Eg Pest(s), disease(s), weed(s) to be controlled. If herbicide state whether for general weed control or for control of specific problem weeds.

3. REASON FOR THINKING PRODUCT WILL BE EFFECTIVE FOR THIS PURPOSE

eg Recommended for same or similar pest on another crop, some evidence for experimental work/observation.

4. CROP DETAILS

4.1 Identity of crop

Identify individual crops if edible, if non-edible either (if few) state individual crops or (if many) give general description, eg turf, bedding plants, pot plants, cut flower crops, herbaceous perennials, ornamental shrubs, hedges, ornamental or forest trees etc.

4.2 Situation of crop

ie outdoors, protected-glasshouse or walk-in tunnels, protected-cloches or low tunnels, other (specify).

4.3 Height of target

If product may at least sometimes be applied with knapsack/handheld applicator state whether target will be

(a) Entirely below operators waist level

(b) Partly or wholly above operators waist level.

5. PROPOSED APPLICATION METHOD(S)

Indicate clearly if any of the proposed methods are already recommended on the product label for use on other crops in similar situations. If the proposed method(s) is/are not already recommended on the product label give full details.

Examples of descriptions of methods:-

(i) Tractor mounted/hand held granule applicator

(ii) tractor mounted/knapsack/hand held sprayer

(a) hydraulic nozzles - fine/medium/coarse spray

(b) spinning disc (state details)

(c) air assisted sprayer (state details)

(d) electrostatic (specify)

(e) other (describe in detail)

For soil applied chemicals indicate whether application is to be followed by incorporation into the soil and if so state method(s) to be used.

6. APPLICATION RATE

Should be expressed as, (as appropriate) either

(a) Application rate of product per unit area and volume of spray per unit area. (State if dilutent used is not water or if product is not diluted).

or

(b) Dilution rate of product (g/kg/ml/litres product per 10/100/100 litres of water).

or

(c) both (a) and (b)

or

(d) other appropriate units.

7. APPLICATION TIMIMG AND MAXIMUM FREQUENCY

(Days from sowing or planting/date(s)/growth stage(s) etc, as appropriate). Give details for each crop if there are differences.

8. USE IN MIXTURES

State if it is proposed to add wetters/oils/other spray additives or if it is proposed to use the product as a mixture with (an)other pesticide(s).

9. MINIMUM INTERVAL BETWEEN APPLICATION AND EXPOSURE OF THE PUBLIC

(a) Edible Crops.

State what would normally be the minimum interval between last application and harvest if the product was applied in accordance with the details of timing and frequency proposed under Section 7, above.

(b) Non-edible crops

State what would normally be the minimum interval between last application and putting plants on display/sale, allowing public access to treated areas, etc (as appropriate) if the product was applied in accordance with the details of timing and frequency proposed under Section 7, above.

10. ANY OTHER RELEVANT INFORMATION

Appendix 8.8: Proposed Training Requirements (from Draft Code of Practice).

Whatever the source of the instruction and guidance it *must* enable the user to:

(a) identify those aspects of legislation which apply to the use of pesticides, in particular their responsibilities under the Control of Pesticides Regulations 1986 and the Poisonous Substances in Agriculture Regulations 1984;

(b) use the information on container labels and elsewhere to determine the approved uses, the potential hazards to human safety, other crops or the environment of a particular product and the precautions necessary to use it safely;

(c) identify the necessary protective clothing for use with a particular product;

(d) carry out correct procedures for handling, mixing and storing pesticides and the disposal of empty pesticide containers and surplus pesticide;

(e) take any necessary emergency action to de-contaminate persons and obtain specialised assistance in the event of accidental poisoning;

(f) prepare appropriate application equipment for work, calibrate and operate it to ensure the correct application (dose) rate;

(g) identify safe procedures for protecting the public and environment from potential hazard before, during and after application and to recognise conditions where pesticide use would pose a risk to people or the environment including water and wildlife and avoid use in such circumstances (eg conditions which may result in spray drift, failure to incorporate pesticides adequately in the soil, inappropriate laying of pest control products or multiple treatments of stored grain);

(h) carry out the correct procedure for cleaning clothing and application equipment which may be contaminated with pesticide;

(i) complete the records necessary to meet any use obligations under the Control of Pesticides Regulations 1986.

Appendix 8.9: Consultative Document Circulation List.

Agricultural and Food Research Council
Agricultural Engineers Association Limited
Agricultural Training Board
Anglers Co-operative Association (Scotland)
Apple and Pear Development Council
Association of British Pharmaceutical Industry
Association of County Councils
Association of District Councils
Association of Independent Crop Consultants
Association of Local Authorities of Northern Ireland
Association of Metropolitan Authorities
Association of Public Analysts
Association of Parish Councils
Association of Scottish District Salmon Fishery Boards
Association of Sea And Air Port Authorities
British Bee Farmers Association
Brewers Society
British Aerosol Manufacturers Association
British Agricultural Machinery Manufacturers Association
British Agrochemicals Association
British Agrochemicals Supply Industry Scheme
British Association of Landscape Industries
British Association of Chemical Specialists
British Association of Plant Breeders
British Bee Keepers Association
British Chemical Distributors and Trades Association
British Crop Protection Council
British Distributors of Animal Medicines Association
British Institute of Agricultural Consultants
British Institute of Agricultural Contractors
British Medical Association
British Pest Control Association
British Railways Board
British Retailers Association
British Trust for Ornithology
British Waterways Board
British Wood Preservers Association
Campaign for the Freedom of Information

Chemical Industries Association
Civil Aviation Authority
Committee for Information on Animal Research
Confederation of British Industries
Consumers Association
Convention of Scottish Local Authorities
Co-operative Union Limited
Council for the Protection of Rural England
Council of Scottish Agricultural Colleges
Country Landowners Association
Country Landowners Association (Wales)
Countryside Commission
Countryside Commission for Scotland
Crofters Commission for Scotland
Earth Resources Research Limited
Environment Protection Equipment Manufacturers Association
Faculty of Community Medicine
Farmers Union of Wales
Fertilizer Manufacturers Association
Food and Drink Federation
Food Manufacturers Federation
Forestry Commission
Friends of the Earth
Game Conservancy
General Municipal and Boilermakers Union
Greenpeace
Horticultural Trades Association
Industrial Safety (Protective Equipment) Manufacturers Association
Institute of European Environmental Policy
Institute of Food Science and Technology
Institute of Trading Standards Administration
Institution of Environmental Health Officers
Local Authorities Co-ordinating Body on Trading Standards
Local Government Training Board
London Food Commission
Mammal Society
Meat and Livestock Commission
Medical Research Council
National Association of Agricultural Contractors
National Association of Local Councils

National Farmers Union
National Farmers Union (Wales)
National Federation of Fruit and Potato Trades
National Institute of Agricultural Engineers
National Proficiency Tests Council
National Turfgrass Council
Natural Environment Research Council
Nature Conservancy Council
Oxfam
Paintmakers Association
Pharmaceutical Society of Great Britain
Public Health and Industrial Pesticides Council
Royal Commission on Environmental Pollution
Royal Environmental Health Institute of Scotland
Royal Society for Nature Conservation
Royal Society for the Protection of Birds
Royal Society for the Prevention of Cruelty to Animals
Royal Society of Chemistry
Salmon and Trout Association
Salmon Net Fishing Association of Scotland
Scottish Association of Directors of Water and Sewage Services
Scottish Consumers Council
Scottish Co-operatve Food Trade Association
Scottish Institute of Agricultural Engineers
Scottish Landowners Association
Scottish National Farmers Union
Scottish Retail Federation
Scottish River Purification Boards Association
Scottish Trades Union Congress
Society of Chemical Industry
Society of Directors of Trading Standards in Scotland
Society of Food Hygiene Technology
Soil Association
The British Council
The Ecology Party
The Royal Horticultural Society
The Society of Scottish Directors of Consumer Protection
Timber Growers Association
Timber Growers Association (Scotland)
Trades Union-Congress

Transport and General Workers Union

Ulster Farmers Union

United Kingdom Agricultural Supply Trade Association Limited

Water Authorities Association

Water Research Centre

Welsh Association of District Councils

Welsh Counties Committee

Wildlife Link

Appendix 8.10: ACP Membership by Expertise (all affiliations non-Government and non-commercial).

1. General Medicine, Clinical Pharmacology

2. Clinical Histopathology, Cytopathology, Carcinogenicity, Teratogenicity.

3. Clinical And Experimental Pathology, Carcinogenicity

4. Analytical Chemistry

5. Wood Preservation, Mycology

6. Epidemiology, Community Medicine

7. Occupational Health and Hygiene

8. Clinical Toxicology

9. Plant Physiology, Experimental Ecology, Experimental Horticulture, Biology of Weeds

10. Agriculture, Crop Production

11. Entomology

Appendix 8.11: SSC Membership by Expertise (and Affiliation).

1. Carcinogenicity, Teratogenicity, Cytopathology, Clinical Histopathology; (Independent)

2. Pesticide Residues and Analysis; (Independent)

3. Agronomy; (MAFF)

4. Pesticides Control and Residues; (MAFF)

5. Clinical Toxicology; (Independent)

6. Entomology; (Glasshouse Crops Research Institute)

7. Vertebrate Toxicology; (Nature Conservancy Council)

8. Entomology; (MAFF)

9. Plant Pathology; (MAFF)

10. Soil Science; (Long Ashton Research Station, AFRC)

11. Timber Preservation; (DoE)

12. Bio Control (eg virus based materials); (Independent)

13. Reproductive Toxicology; (Independent)

14. Operator Safety; (HSE)

15. Environmental Toxicology; (MAFF)

16. Acute Toxicology; (MAFF)

17. Carcinogenicity and Histopathology; (Independent)

18. Clinical Pharmacology and Epidemiology; (Independent)

Appendix 8.12: Environmental Panel Membership by Expertise (and Affiliation).

1. Entomology; (MAFF)

2. Bird and Amphibia Toxicology; (NCC)

3. Microbiology; (Long Ashton Research Station AFRC)

4. Ecology and Toxicology; (MAFF)

5. Vertebrate and Invertebrate Pest Control; (MAFF)

6. Vertebrate Ecology; (MAFF)

7. Fish Toxicology; (MAFF)

8. Environmental Aspects of Pesticide Control; (DoE)

9. Toxicology; (MAFF)

10. Environmental Aspects of Water Problems (Anglian Water Authority)

11. Wildlife; (DAFS)

12. Environmental Toxicology; (MAFF)

13. Entomology; (Rothampsted Experimental Station)