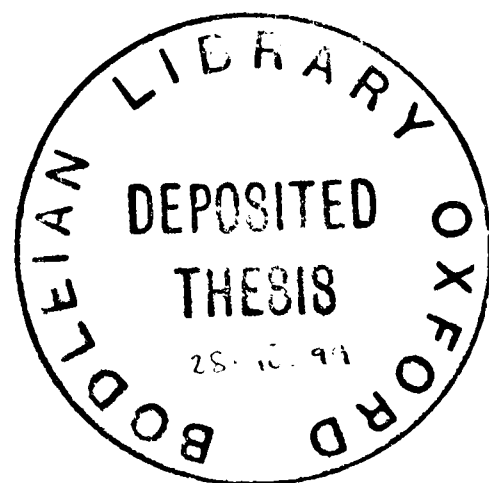


Risk, Expertise and Judicial Review: Scope of Review And Decision Making Under Scientific Uncertainty

Thesis in Law submitted for DPhil degree

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Judicial review of risk regulation rule making in the United States has been a highly controversial area of administrative law. How a court should *substantively* review expert decision makers acting under scientific uncertainty is by no means clear. While there has been much criticism, few answers have been forthcoming, and the present approach taken by the courts has led to ossification of the rule making process.

While risk regulation may seem the product of late twentieth century America, courts in carrying out judicial review have been tackling the problems created by expertise and scientific uncertainty since at least the turn of the century. The courts' approach in applying such scope of review standards as the substantial evidence and arbitrary and capricious tests has been largely determined by their understanding of what is an *expert administrative agency*. Two models of administrative expertise can be identified – the deliberative and the rationalist. The rationalist expert agency is defined as an analytical fact finder which does not stray outside precise legislative boundaries. In contrast the deliberative expert agency is a complex problem solver in the public interest. It engages in deliberation informed by analysis to solve problems identified by Congress. Through an examination of the impact of these models on scope of review doctrine an appreciation can be gained of why judicial review is presently carried out the way it is and how it can be reformed.

In the early half of this century, scope of review doctrine was underpinned by the deliberative model. With the creation of the risk regulatory agencies in the early 1970s there was much confusion over both the role of these new agencies and how the courts should review their decisions. Due to a number of circumstances, both internal and external to risk regulation, judicial review was by 1980 underpinned by the rationalist paradigm. Influential factors included: growing distrust of public administration, hard look review, debates about administrative procedure, and legislative ambiguity.

It is argued that the rationalist model is at odds with the task of risk regulators and what is expected of them. It is the rationalist paradigm rather than judicial review *per se* which has led to the problems of ossification. The deliberative paradigm can and should be the basis for effective judicial review and this is illustrated with a mock judgement.

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Common Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
APA	Administrative Procedure Act
CAA	Clean Air Act
CBA	Cost/benefit analysis
Cir.	Circuit
CRA	Comparative Risk Assessment
CPSC	Consumer Product Safety Commission
D.C.	District of Columbia
EPA	Environmental Protection Agency
FACA	Federal Advisory Committee Act.
FCC	Federal Communications Commission
Fed. Reg.	<i>Federal Register</i>
FPC	Federal Power Commission
FTC	Federal Trade Commission
FDA	Food and Drug Administration
FWPCA	Federal Water Pollution Control Act
ICC	Interstate Commerce Commission
IRLG	Interagency Regulatory Liaison Group
MC	Methylene Chloride
NEPA	National Environmental Policy Act
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NLRB	National Labour Relations Board
NRC	National Research Council
OMB	Office of Management and Budget
OSHA	Occupational Safety and Health Administration
OSH Act	Occupational Safety and Health Act 1970

PEL	Permissible Exposure Limit
ppm	Parts per million
SDWA	Safe Drinking Water Act
TSCA	Toxic Substances Control Act
USCA	United States Code Annotated

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¹ Please note that much of this legislation has been subject to dramatic legislative reform (For example the Clean Air Act). References are given to the USCA where relevant.

² Prior to 1977 amendments

³ Ibid.

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⁴ Also known as the Solid Waste Disposal Act.

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Chapter One

The Problem Stated

In January 1997 the United States Occupational Safety and Health Administration (OSHA) published its final rule in relation to the commonly used paint stripper, methylene chloride (MC).¹ The rule was passed in accordance with §655(b)(5) of the Occupational Safety and Health Act 1970 (OSH Act).² It set the long term permissible exposure limit (PEL) at 25 parts per million (ppm) over an eight hour time weighted average exposure. It was to apply to all workplaces. This was even though, like many other chemical substances, the collective knowledge about the health risks arising from long term exposure to MC is not conclusive. While scientific evidence suggests that it *may be* a carcinogen there is no absolute proof that this is the case. Moreover, there is little agreement among scientists over what is a safe level of exposure to MC. There is nothing unique in this rule. It is one of many standards which OSHA, the Environmental Protection Agency (EPA) and other administrative agencies pass each year to protect the environment and human health from the side effects of industrial processes. They do so under a wide array of legislation which allows them to take action even though there may not be full proof of harm. This form of regulation has become known as risk regulation.

The rulemaking process in relation to MC has taken over a decade. During that time, OSHA had developed a 48,000 page record which includes highly

¹ 62 Fed. Reg. 1494 (January 10, 1997).



technical and often conflicting evidence over what may be the possible health effects of exposure to methylene chloride. The final rule and a statement of its basis and purpose is over 100 pages of the *Federal Register*. There is also nothing remarkable in the time and the amount of resources that the setting of this rule had taken.

Nearly every standard that OSHA has set has been judicially reviewed. The MC standard is no different and at present is the subject of litigation. There are over thirty cases in which the courts have defined what is a legally 'reasonable' decision under the OSH Act. Moreover, there are many hundreds of cases in relation to risk regulation more generally.³ It is these decisions which OSHA uses as a guide to how they should carry out their legislative mandate⁴ and it is well recognised that judicial review is one of the major influences on the substantive exercise of a risk regulator's discretion.⁵ Past court decisions have held many things but generally speaking they can be summarised simply. Judicial review has required that OSHA only pass standards where there is a body of reputable scientific thought which shows there is a significant risk of harm and that the proposed standard will lower that risk.⁶ Moreover, OSHA must also have evidence that the rule will not affect the long term profitability of an industry⁷ and that the

² 29 USCA §651 et seq.

³ For the case load for risk regulation generally see Wald (1994) at 632-4.

⁴ Ibid. at 1496.

⁵ NRC (1994) at 33-7. Also see McGarity (1992) and Carnegie Commission (1993) at 56-7; Presidential/Congressional Commission on Risk Assessment and Risk Management (1997) and Committee on Government Operations (1998).

⁶ *Industrial Union Dept, AFL-CIO v. American Petroleum Institute* 448 US 607 (1980).

⁷ *American Iron and Steel Institute v. OSHA* 939 F.2d 975 (D.C. Cir. 1991).

protective measures are the most cost effective alternative.⁸ When one considers that OSHA is acting under scientific uncertainty and also attempting to predict future behaviour these are weighty analytical burdens indeed.

Many are critical of these judicial decisions, arguing that they have resulted in ossification or ‘paralysis by analysis’ of the rulemaking process.⁹ Judicial review it is claimed, has resulted in inefficiency and rulemaking is overburdened by the analytical requirements imposed by the courts. Rulemaking is now highly resource intensive, takes longer, and excludes the non-expert public but does little to ensure ‘better’ regulation.¹⁰ Administrative agencies are preoccupied with ensuring that the rule can withstand litigation and will often pass less stringent regulations than they otherwise would or decline to regulate because they do not have the knowledge that the courts require.¹¹ The courts’ information requirements are not only often unrealistic but also hamper the precautionary aims of risk regulation. A focus on scientific analysis in cases of scientific uncertainty invariably reveals large quantities of conflicting evidence where any theory or study can be criticised. Likewise, such a focus may ignore larger policy debates. This is despite the fact that socio-political forces are often the catalyst for regulation in the first place. It would seem that judicial review does little to contribute towards accountable and legitimate public administration.

While most would agree that this is not a desirable state of affairs there are

⁸ *International Union, UAW v. OSHA* 37 F.3d 665 (D.C. Cir. 1994).

⁹ Mashaw & Harfst (1990); Seidenfeld (1997); Pierce (1995) and McGarity (1992).

¹⁰ Pierce (1997a)

¹¹ *Consumer Federation of America v. CPSC* 883 F.2d 1073 (D.C. Cir. 1989).

no obvious solutions to how this problem can be solved.¹² This is because in essence, it is a deep set conundrum. It can be stated simply - how can and should a generalist court judicially review an expert administrative decision which is made on the 'frontiers of scientific knowledge'? This thesis is concerned directly with this question.

In this short chapter, the key issues in understanding and solving such a problem are discussed. This chapter is not a summary of the thesis but rather is an introduction to some of its core themes. The problem before the courts is not a discrete one limited to a distinct area of administrative law. Rather it ties into larger questions about the role of the courts in carrying out judicial review and more importantly, the role of expert public administration in the administrative state. To find a solution to the problem these issues must be explored in greater detail.

1. The Conundrum of Risk, Expertise and Judicial Review

In the last five years, risk regulation has been at the centre of a heated debate over what should be the nature and role of the administrative state. Congress,¹³ judges,¹⁴ and many influential commentators¹⁵ have all engaged in a complex dialogue about how agencies such as the EPA and OSHA should carry out their task.

¹² Compare Seidenfeld (1997); Edley (1990); Breyer (1993) at 57-9; and Committee on Government Operations (1998).

¹³ Committee on Government Operations (1998) and Applegate (1995). See Chapters Three and Five.

¹⁴ Breyer (1993); Wald (1994); Leventhal (1974); and Bazelon (1977).

The confusion and controversy over the role of such agencies is not surprising. Risk regulation was a core part of the 'Rights Revolution' in the early 1970s. This was an era in which public administration was both distrusted but also relied upon to manage large social programs. In a few short years, Congress passed more legislation than they had during the New Deal and the Federal government grew at an exponential rate. New agencies such the EPA, OSHA, National Highways and Transport Safety Administration (NHTSA), Consumer Product Safety Commission (CPSC), and the Nuclear Regulatory Commission (NRC) were given a wide set of tasks in which they were required not only to carry out scientific research, set standards and engage in community consultation but to do so in circumstances of scientific uncertainty. Congress was well aware of the problems of waiting for definitive scientific evidence about many of these risks and still required action to be taken.¹⁶

In passing legislation, Congress also stressed the importance of these new agencies being held to account and, in particular created specific provisions for judicial review which tended to be more stringent than those set out in the Administrative Procedure Act (APA). The courts and agencies were thus brought into an uneasy partnership in which generalist courts could wield great influence over the substance of expert agency discretion.¹⁷ When Judge Leventhal of the D.C. Circuit of the Federal Court of Appeals, pondered the following question:

¹⁵ Sunstein (1997); NRC (1996) and Ackerman & Stewart (1985).

¹⁶ Scordo (1994).

¹⁷ McGowan (1977) and Leventhal (1974).

What does and should a reviewing court do when it considers a challenge to technical administrative decision making?¹⁸

he was not simply being rhetorical. From the courts' perspective there seemed to be no obvious answer, particularly in cases of scientific uncertainty.

The problems of judicial review in this area may seem unique to late twentieth century America.¹⁹ Risk regulation was relatively unknown until the 1960s. Until that time there had not been the political will or scientific knowledge to protect the public from these risks on such a massive scale.²⁰ The agencies which were entrusted with the task also differ in structure, substance and decision making processes from their New Deal counterparts.²¹ The standards for judicial review had been specially legislated by Congress. Likewise, ossification or paralysis of rulemaking has been recognised, in the main, as problems with respect to 'rules predicated on assumptions concerning complicated factual and scientific relationships'.²²

Yet on closer analysis, the conundrum identified here has long pervaded administrative law. The legislative standards were amalgams of well known scope of review tests. Moreover, while OSHA and the EPA were to some extent 'experimental' agencies, neither expertise nor scientific uncertainty were new to administrative law. The problems of expertise, scientific uncertainty and the adjustment of scope of review standards have existed since at least the early days

¹⁸ *Ethyl Corp v. EPA* 541 F.2d 1, 68 (D.C. Cir. 1976).

¹⁹ As argued by McGarity (1979) at 750.

²⁰ Yellin (1983).

²¹ *Ibid.* Also see Ackerman & Hassler (1981).

of the Interstate Commerce Commission.²³ Risk regulation may be a relatively new development but judicial review of expert administrative action is well entrenched and has evolved over a long period.

Thus, for example, the problems of judicially reviewing these types of issues were recognised in the 1941 Final Report on Administrative Procedure. It is useful to quote from that report.

In considering now whether judicial review of a detailed kind is desirable, attention should be paid to the nature and complexity of the questions of fact involved. To take a comparatively simple example, suppose the problem to be that of prescribing regulations for a particular type of poisonous spray residue to be permitted upon raw apples shipped in interstate commerce. The following questions would seem to have a bearing upon the final result: (a) the quantity of the particular poison, consumed within, say, a year, that will have a definitely harmful effect upon ordinary individuals; (b) the proportion of individuals that would be similarly affected by smaller quantities, and what quantities; (c) the quantity of unpeeled apples, and hence of poison upon apples consumed by individuals in, say, a year; (d) the quantity of the same poison consumed by individuals upon other products in the same time; (e) the physical practicability and; (f) the cost of reducing the amount of spray residue to various quantities and of eliminating it entirely before the apples are shipped; (g) the probable distribution between growers and consumers of the added cost incident in the removal of spray residue, in light of (h) the effect of higher prices upon consumption and (i) the countereffect of knowledge by consumers that apples carry poison.²⁴

That report concluded that in such cases the courts should not impose any heavy procedural or analytical demands on a decision maker.²⁵ This is in sharp contrast with the present approach to judicial review.²⁶ Moreover, the same report

²² Pierce (1995) at 62. Ossification has also started to occur in other areas but this has also been due to the rationalist paradigm.

²³ Interstate Commerce Commission Act 1887.

²⁴ Attorney General's Committee (1941) at 118.

²⁵ Ibid. at 120.

²⁶ *Motor Vehicles Manufacturers Association v, State Farm Mutual Automobile Insurance Company* 463 US 29 (1983).

recognised the problems of ossification in cases such as these.²⁷

2. The Nature of Judicial Review

If expertise and scientific uncertainty are not new to administrative law then a longer term perspective is required of how the courts have approached the problem. Such an analysis reveals that doctrine has evolved over time and has not remained static. Through this broader contextual analysis one can appreciate that the role of the judicially reviewing court in risk regulation is concerned with a number of core principles.

The right of courts to judicially review administrative action has long been recognised and accepted. Conventionally, the task of the courts is to ensure that administration has stayed within the power granted to it by Congress. Due to the wide breadth of power granted to most administrative agencies such a statement is not very helpful and a number of other doctrines have been developed. Cases in which courts will intervene include: cases where the body has misconstrued the law; where there was no ‘substantial evidence’ on which to base the decision; the decision was ‘arbitrary and capricious’; or where the proper procedures have not been complied with. This series of grounds are codified in §706 of the Administrative Procedure Act 1946.

The concern here is with the grounds of substantive review. As Edley states it is ‘just one big problem’ and to describe it as a law or doctrine presumes a clarity

²⁷ Attorney General's Committee (1941) at 61.

that does not exist.²⁸ Scope of review includes questions concerning the standard or intensity of review, what is to be reviewed, and what form the courts' inquiry should take.²⁹ For simplicity's sake the label of scope of review doctrine is used here for the bundle of rules, principles and doctrines which direct the courts in carrying out substantive review.³⁰ These include the substantial evidence test and the arbitrary and capricious test.³¹ These grounds are not only directed at legality in a strict sense but also doctrines designed to check 'the extremes of arbitrariness of incompetence'.³² Thus, during the 1960s the courts came to describe their task as not only one concerned explicitly with legality but also 'reasonableness'.³³ This body of doctrine is clearly flexible. The task of the courts, however is *not* to remake any agency decision on its merits; to restructure bureaucracy to make it more efficient; or to impose a certain paradigm of public administration. It is merely to ensure that public administration has exercised its discretion in accordance with a minimal definition of reasonableness.

Phrases such as 'reasonableness' or those such as 'institutional competence', 'scope of review' and 'deference' give very little guidance as to how

²⁸ Edley (1990) at 96.

²⁹ Some commentators wish to draw a distinction between scope, standard and intensity. On the whole, however, these terms have been used interchangeably by courts and academics alike.

³⁰ Some such as Mashaw give a broader definition to scope of review so that it includes agency interpretation of statutes. Mashaw (1997) at 174-5. As noted in Chapter One interpretation is not of direct relevance here but it will be discussed in Chapter Six.

³¹ Administrative Procedure Act §706 (2)(A) & (2)(E).

³² Attorney General's Committee (1941) at 78. See also Melnick (1997) at 586; Shapiro (1996) at 92; and Anthony & Codevilla (1996) at 667.

³³ *Automobile Parts and Accessories v. Boyd* 407 F.2d 330, 338 (D.C. Cir. 1968).

judicial review is precisely carried out.³⁴ This is not only in relation to how deferentially or how intensively a court should review administrative action but also what type of inquiries it is legitimate for a court to make in carrying out judicial review. Thus for example in relation to the MC standard above, should a court scrutinise the animal studies relied on by OSHA for their methodological accuracy? How does a court decide that a decision is accurate enough so that it is supported by ‘substantial evidence’? Should the courts ensure that a ‘meaningful dialogue’ took place between OSHA and the public concerning all aspects of the standard? Should that dialogue only be limited to matters of scientific importance?

In asking and answering these questions the courts must make some assumptions about public administration. The questions in relation to meaningful dialogue are only relevant if a court thinks it is important for an agency to consult with the public. What is ‘substantial evidence’ or what is ‘arbitrary and capricious’ will depend upon a judicial assessment of what *is* expert administration and what *role* it plays within government. Those assumptions will not only be based on what is the role and nature of expert public administration but also what it is perceived to be.

An important starting point for understanding what is the role and nature of an expert administrative agency is the legislative mandate. The reality is however, that enabling legislation tends to be vague and open ended.³⁵ Thus for example OSHA must regulate so as to ensure ‘safe or healthful employment and places of

³⁴ Edley (1990) at 97. The problem with ‘reasonableness’ is that as Edley notes ‘though straightforward, it imposes no consistent discipline on anyone’.

employment’.³⁶ While interpretation will have a role to play, in cases of such broad delegation, the essential problem is how should generalist courts judicially review the *substantive* exercise of discretion of a specialist body when the factual basis for regulation is highly deficient?³⁷ This can be broken down into two subquestions. How should courts judicially review the actions of expert administration and how should a court review the evidentiary basis of a decision? The answer to the latter question will be largely determined by how important such a factual basis is held to be. This will in turn depend on what is presumed to be the role and nature of expert administration. Thus the answer to the second question will thus depend largely on the answer to the first. Likewise, in cases where the evidentiary basis is explicitly defined (such as by legislation) this will influence what the role of expert administration is perceived to be and thus how the court carries out its task. While subsumed in the first question, the second question is still important to identify. The answer to it is what most administrators and lawyers are ultimately interested in.

3. Defining Expertise

Inquiries must then focus around judicial assumptions about the role and nature of expert public administration. As already suggested, these are not necessarily fixed. While it has become commonly accepted that *some* form of expert public administration is a necessity in an advanced technological society

³⁵ Sunstein (1990) and Farina (1989).

³⁶ 29 USC §652(8).

there has been no uniform approach to how the courts define what it is. Nor has this been helped by the vast array of institutional structures and legislative mandates which are the backbone of expert public institutions.³⁸ As Judge Leventhal noted in *Greater Boston Television Corp. v. FCC* the expertise of an administrator can be:

sometimes technical in a scientific sense, sometimes more a matter of specialisation in kinds of regulatory programs.³⁹

The reasons why an administrative agency may be classified as 'expert' are many. Expertise is also a 'relative term'. It implies that the expert is in possession of some skill or some knowledge that others do not have. Within government, it is a term which means that an administrative agency is an expert relative to the Congress, the courts and to other parts of the Executive. The nature of expertise will also very much depend upon the type of problems which such administrative agencies need to solve. The type of expertise needed in the regulation of pesticides requires biologists, toxicologists, medical professionals and economists. Communications regulation in contrast, requires social scientists such as sociologists and economists.

What is required is a very broad definition of expertise. The following definition serves as a useful starting point. *An expert administrative agency is an*

³⁷ This is not to say that questions of interpretation will not impact on this issue. See Chapter Five.

³⁸ The phrases 'administrative agencies' and 'public administration' are used interchangeably. This is because while a clear distinction can be made between independent administrative agencies and centralised public administration in the first half of this century, that distinction has generally broken down with complex reorganisation. Generally speaking, risk regulation agencies are not thought of as central public administration but they are also clearly not as independent as the New Deal agencies were. See Chapter Three and Presidential Advisory Council on Executive Organisation (1971) and Hoover Commission (1949).

*agency which can lay claim to either specific skills, experience or knowledge which neither Congress nor the courts possess.*⁴⁰

‘Specific skills, experience or knowledge’ can refer to many things. It may be that expert administrators are experts because of their formal education, vocational training, or they have trained in a specific methodology. These type of experts are very much fact finders. Expertise however can be interpreted far more broadly to mean that an agency has had long experience working ‘at the coalface’ or dealing with a certain ‘group of phenomena’.⁴¹ In doing so such experts may consult with the public and attempt to manage complex and polycentric social problems. The legitimacy of such experts cannot be limited simply to their methodology

4. The Role of Expert Agencies in the Administrative State

Yet our inquiry cannot stop there. We may argue that OSHA is a fact finder but that does not explicitly tell us what type of facts OSHA can or should collect and what are the exact boundaries of its power. The role that courts think that any particular expert administrative agency plays within a democracy must also be addressed. It is also a difficult question because the responsibilities of expert bureaucracies has always been a highly contentious issue within American politics. Discussion has often suffered from too much rhetoric concerning the evils of expert

³⁹ 444 F.2d 841, 850 (DC Cir. 1970).

⁴⁰ This is a paraphrasing of a more general definition of expertise given by Giddens (1994) at 84.

bureaucracy and too little analysis over what such bureaucracies are actually doing or are expected to do. In judicial review, the rhetoric and realities must be somehow reconciled.

The main source of controversy concerning expert administration is its uneasy relationship with democracy. The growth of mass democracy and bureaucracy have occurred in tandem. The latter being seen as necessary to coordinate democratic wishes in an era of technological progress.⁴² The problems arise when one attempts to give substance to what the task of expert bureaucracy should be. Bureaucracy seemingly brings science and democracy into direct conflict.

For some, following a Weberian line of analysis, the task of expert bureaucracies is simply to carry out specified tasks in a highly efficient and organised manner.⁴³ On this line of analysis, care must be taken to ensure that expert administration stays within the boundaries of its competence. Expert bureaucracy, if not controlled, will usurp democratic power.⁴⁴ The instrumental rationality of such bureaucracies will delegitimise the 'rough and tumble of democratic politics'.⁴⁵ This view is propounded not only by those writing in the field of public law but also those writing in public administration, political theory

⁴¹ *NLRB v. Standard Oil Co.* 138 F.2d 885, 887 (2nd Cir. 1943).

⁴² Weber (1968) at 973-5.

⁴³ Wilson (1941) and see the critique by Edley (1990).

⁴⁴ From a legal perspective see Frug (1984) and Stewart (1975) at 1678.

⁴⁵ Harvey (1996) at 375. Also see Habermas (1987) at 62-7 and Habermas (1996) at 317.

and sociology.⁴⁶

Yet the reality is that we expect far more from expert public administration, than merely that they are fact finders. This is particularly so in the area of risk regulation where agencies must not only carry out scientific research but also engage in public consultation, policy development and pass precautionary legislation. As the latest NRC report notes the role of the EPA in risk characterisation (the process before setting standards) is one of leading an ‘analytic/deliberative process’ of finding a ‘shared vision of desired conditions’ for those throughout a community.⁴⁷ On this analysis, expert administration is less an adjunct to democratic government and more an integral part of it. The role of administration cannot be precisely circumscribed albeit this is not to say administration must not be held to account.

The two images briefly sketched here, suggest that the type of role that expert administration may play is a varied one. What is reasonable administrative action will depend very much on how expertise and its democratic role is defined. This in turn, we affect how a court carries out judicial review.

5. The Lines of Analysis

It is clear that the separate questions concerning the role and nature of expert administration are very much intertwined. The answer to one will determine the answer to the other. If an expert administrative agency is defined purely as a

⁴⁶ Rourke (1965); Habermas (1987); Porter (1995) and Beck (1992).

⁴⁷ NRC (1996) at 18.

fact finder it is likely to be seen as quite distinct from the democratic process. On the other hand, if an expert administration is assumed to be part of the democratic process then its expertise is likely to be defined in reference to not only its fact finding abilities but also to its experience, possession of other skills and its ability to understand and manage complex social problems. The former can be described as a *rationalist* paradigm of expertise and the latter a *deliberative* paradigm of expertise.⁴⁸

Broadly speaking, the courts' approach to judicially reviewing rulemaking under scientific uncertainty in the area of risk regulation has been underpinned by a *rationalist* paradigm. As shall be shown such a paradigm is inappropriate and has led to ossification of the rulemaking process. Rather, judicial review in this area should be underpinned by a *deliberative* paradigm. This is because risk regulation is not a purely analytical exercise in which an agency such as the EPA is merely weighing up a series of facts. How the deliberative paradigm will impact on judicial review in this area will be discussed in Chapters Six and Seven.

Thus we can begin to make sense of our conundrum. Answers will not be found through a solely doctrinal study. Rather a more conceptual analysis of the role and nature of expertise in public administration needs to be carried out. As terms such as 'expertise' and 'public administration' are used in many different legal contexts it is useful to note what inquiries are *not* being made. This not only avoids confusion but also helps in understanding what a court is actually doing in judicial review.

⁴⁸ See Chapter Two.

Firstly, the problem is not being treated as if it was solely a *scientific problem* in which an assessment needs to be made of whether, for example, animal studies or epidemiology is the proper basis for regulatory action. Such an assumption lies behind proposals that a science court should replace a generalist court engaging in judicial review.⁴⁹ To classify it as such a problem is to ignore the role judicial review plays in ensuring a baseline of administrative accountability. While a science court may (or may not) address issues of accuracy it cannot ensure broader concepts of agency reasonableness.

Secondly, the problem is not an *evidentiary* problem. That is we are not concerned with whether agencies in making decisions should import the rules of expert evidence or burdens of proof from trial process.⁵⁰ The problem with this analysis is that the aims of these rules of evidence and judicial review are not the same. The rules of expert evidence are concerned with the admissibility of evidence in a bipolar adversarial context where such evidence will aid one side or the other. In contrast, the task of the court in judicial review is to ensure that the decision is a legal and reasonable exercise of administrative power.⁵¹

Nor is the line of analysis here concerned with finding the most appropriate *policy making* paradigm for expert administration. The main proponents of this line

⁴⁹ Cavicchi (1993)

⁵⁰ Warren & Marchant (1993); Cranor (1993); and Percival et al (1996).

⁵¹ Davis (1942) and Wigmore (1922). This is not to say that procedural rules or traditional concepts of administrative adjudication will not be relevant in discussing scope of review doctrine. See Chapter Four.

of analysis have been Martin Shapiro and Colin Diver.⁵² At first glance, their approach may seem similar to the inquiry carried out here. Shapiro and Diver analyse different models of administration taken from the public administration literature and discuss them in some detail. Such analysis is perceptive and the distinction that these two authors draw between incremental and synoptic decision making is an important one. Synoptic decision making is where an administration will identify goals, analyse and weigh up priorities and thus pursue the goals which are the most effective in light of this analysis. Incremental decision making on the other hand tends to be less goal focused, is carried out by trial and error and is based on the bounded rationality of the agency.⁵³ The problem with this line of analysis is that it is not the task of judicially reviewing courts to impose in detail a particular scheme of administrative management. Rather the concern of the courts is to ensure that a decision is legitimate within the legislative framework.

This thesis is also not directly concerned with a *meta democratic* analysis.⁵⁴ That is in finding a solution to the problem one must explore in detail the theories of the state which underpin not only judicial review but also public law. Thus for example, in recent years, civic republicanism has been a popular vehicle for discussing risk regulation.⁵⁵ This body of analysis has yielded some important insights but is not well suited to answering questions such as what must OSHA do to ensure that their MC standard withstands judicial review. As the starting point

⁵² Shapiro (1968); Shapiro (1988); Diver (1981); Gillette & Krier (1990) and see McGarity (1991).

⁵³ Shapiro (1988) at 29; Diver (1981) at 396,399.

⁵⁴ Williams (1994) and Poisner (1996).

⁵⁵ Sunstein (1997) at Chapter Five and Sunstein (1993a).

are broad ranging theories of the state, this issue and the judicial case law in relation to it invariably gets lost in a complicated dialogue about competing theories.

This is not to say that each of these bodies of scholarship are not relevant. Far from it and as shall be seen in detail throughout the thesis all of these disciplines are essential reference points. This is particularly so in relation to the studies in meta democracy and administration. They are however, only reference points. To find solutions to the problems of judicial review under scientific uncertainty we must focus on the task of the judges. That task is a subtle and elastic one.

6. Conclusion

It has been commented by Cook that studies of expert public administration tend to be 'myopic'.⁵⁶ The focus being on avoiding the perceived dangers of arbitrariness rather than on exploring the larger questions of what roles do such institutions play in the administrative state. The same can be said of judicial review of rulemaking under scientific uncertainty. This is clearly an area which has suffered from a lack of a conceptual perspective. There is a need to understand many things: the historical context of judicial review of expert administration; the wider policy debates concerning risk regulation; and the rich political and theoretical tapestry against which judicial review of this sort takes place. Only then can we begin to find workable answers to the problem before us.

⁵⁶ Cook (1996) at 133.

Chapter Two

Expertise and Judicial Review: The Deliberative and Rationalist Paradigms

Expert discretion is the lifeblood of the administrative process...¹

The history of American administrative law has been a history of how generalist courts have called expert administration to account. From the rise of the Interstate Commerce Commission in 1887, through the ‘constitutional moment’ of the New Deal² and onwards to the 1970s Rights Revolution,³ judges and administrative law scholars have been grappling with the courts’ role. The conundrum of judicial review and risk regulation is merely a continuation of this narrative. The difficulties encountered by the courts in judicially reviewing Occupational Safety and Health Administration (OSHA) rulemaking are, in essence, no different from those encountered by the courts in generations before when they were confronted by administrative action on the part of the Interstate Commerce Commission (ICC).

From the courts’ perspective, the most perplexing issue has been how they should review the *substantive* exercise of expert agency discretion. The different doctrines and strategies the courts have developed are collectively known as scope of review. While there has been some legislative tinkering, the standards of review which apply in risk regulation are those which have slowly evolved over the last

¹ *Burlington Truck Lines Inc. v. US* 371 US 156,167 (1962)(The *Burlington* case).

² Ackerman (1991).

³ Sunstein (1990).

century. Despite, or perhaps because of, this long evolutionary period, the law in relation to scope of review is notoriously slippery, unfathomable and not easily subject to analysis.⁴ Kenneth Culp Davis, after three decades of writing on the subject, concluded that:

Courts usually substitute judgement on the kind of questions of law that are within their special competence, but on other questions they limit themselves to deciding reasonableness; they do not clarify the meaning of reasonableness but retain full discretion in each case to stretch it in either direction.⁵

Such a comment highlights the opacity of standards of review such as the arbitrary and capricious test. It suggests that nothing positive or illuminating can arise from an analysis of the problem outlined in Chapter One. Yet the decisions of the courts are not unprincipled. The driving force, however, is not the internal logic of the law but rather the paradigms of administration which underlie the courts' approach.

This chapter is a historical exploration of how judicial assumptions concerning the role and nature of administrative expertise have influenced scope of review doctrine up until 1970. It aims to illustrate that there are different ways in which administrative expertise has been defined and that these divergent definitions have affected scope of review doctrine. In Part One, two different models of expertise are isolated – rationalist and deliberative expertise. While agency expertise has long been recognised as an important factor that judges consider in carrying out judicial review, there has been very little unpacking of the concept.⁶ In Part Two, the impact of these different definitions on scope of review is discussed. The analysis starts with the creation of the ICC in 1887 and focuses

⁴ Levin (1996) at 665 and Plater & Norine (1991) at 669.

⁵ Davis (1984) at §29.1.

on the early 20th century, the New Deal, the Administrative Procedure Act and the 1950s and 1960s. In Chapters Four and Five the case law after 1970 will be explored.

Two key factors are clear from this survey. First, judicial review of expert decision making is not a new phenomenon and while there has clearly been an evolution in the administrative state the problems encountered by the courts in risk regulation are not entirely alien to them. Second, scope of review doctrine is very elastic and has changed over time as assumptions about the administrative state have also changed. Judicial review has not so much swung between intense scrutiny and deference but more the type of demands that courts make of administrative agencies have changed dramatically over the course of this century. This becomes clearer in Chapters Four and Five.

1. The Ambiguous Role of Expert Administration

The role that expert public administration should and does play in American government has always been a highly ambiguous one.⁷ There had been an active debate on the issue since the Federalist papers.⁸ On the one hand, the emphasis on the importance of popular sovereignty within the American system has meant that any potential for institutions to wield unchecked power is viewed as undesirable.⁹ Appeals to expert authority are often mistrusted and perceived as cloaks for the

⁶ Jaffe (1965) at 579; Butler (1946); and *Chevron USA Inc v. NRDC* 467 US 837 (1984).

⁷ See Cook (1996); Rohr (1986); Light (1997); and Skowronek (1982).

⁸ Hamilton, Madison & Jay (1992). Papers 69-75.

⁹ Skowronek (1982) at 6; Wilson (1989) at 335 and Bennett & Bennett (1990) at 2.

exercise of malign discretion.¹⁰ On the other hand, however, there are those who have argued that public administration should have a substantive and central role to play in a democracy.¹¹ For this group, administration, while staffed by experts must also be kept ‘articulate with democracy’.¹²

The creation of the Interstate Commerce Commission (ICC) in 1887 is often viewed as the birth of the American administrative state. The ICC was the first major federal commission which was made independent from centralised administration and was given a problem to solve. It was quickly followed by the Federal Trade Commission¹³(FTC) and ultimately the New Deal in the 1930s. In the late 19th century, industrial growth and technological progress brought with them an urgent need for centralised and expert administration.¹⁴ Society was becoming so interdependent that common law mechanisms such as contract could no longer guarantee a fair and open market.¹⁵ Intellectual movements such as the Progressive school of thought in the early 20th century,¹⁶ appreciated not only that industrialisation had created a need for specialised administration but that this trend

¹⁰ Frug (1984); Bernstein (1970) and Mollenhoff (1965) at 5.

¹¹ Frankfurter (1939) at 352 and Freeman (1997).

¹² Croly (1915) at 373. Also see Lippmann (1914) at 275; NRC (1996); and Williams & Matheny (1995).

¹³ For a history see McGraw (1984).

¹⁴ Weber (1968) at 973; Dickinson (1927) at 12; Lippmann (1929) at 269; and Frankfurter (1927) at 617.

¹⁵ McGraw (1984). For a judicial discussion of this problem see *Munn v. Illinois* 94 US 113 (1877); *Texas P. Ry Co. v. ICC* 162 US 197, 210 (1896)(The *Texas* case); and *Cincinnati N.O. & T.P. Ry Co. v. ICC* 162 US 184, 194 (1896)(The *Cincinnati* case).

¹⁶ Sandel (1996) at 205; Lippmann (1914) at 265; and Croly (1909) at 101-3. For a discussion of the Progressives see Forcey (1960) and Levy (1985).

was seemingly at odds with Jacksonian models of populist administration.¹⁷ Industrialisation thus created a tension between science and democracy.

That tension is reflected in the fact that the growth of the administrative state was not accompanied by a uniform theoretical perspective about the role and nature of expert public administration. Attitudes towards science, government and administration have not only changed over time but there has often been very little agreement over these concepts at any point in history.¹⁸ More importantly these different theoretical perspectives on issues such as science and government tend to be the basis for divergent theories or ‘paradigms’ about what is and should be the role of public administration. Paradigms or theories are:

descriptions of how our political world is organized and how it works. They give us mental images of what to look for in political life and what to expect from it.....the influence of pictures and themes is not just on what we expect and what we see, but also on what we demand and what we affirm. Pictures lead not only to predictions but also to principles. Our vision of what *is* guides our approach to what *ought* to be.¹⁹

Through this blending of the *is* and the *ought*, such paradigms will have a powerful effect on what is defined as ‘reasonable’ administrative action. In turn, this will impact on how administration is held to account. Such paradigms will be crucial in determining what is ‘substantial evidence’ or what is ‘arbitrary and capricious’. Moreover, they will provide some guidance as to how an administrative agency should collect information or how important the fact/law distinction is.

¹⁷ For a discussion of the Jacksonian period see Cook (1996) at Chapter Three.

¹⁸ Frankfurter (1939) at 346; Williams & Matheny (1995); and Bennett & Bennett (1990) at 205.

¹⁹ Mashaw (1997) at 1. Also see Kuhn (1970) for a discussion of paradigms in the context of the scientific progress.

As already noted in Chapter One, 'expertise' refers to a whole range of bodies of knowledge, skills and experience and as Croly has noted 'it is a mischievous idea that the expert is merely the specialist'.²⁰ An important starting point in discussing expert administration must be to understand the range of different definitions of expertise. The two paradigms discussed below lie at the extremes of the definitions of administrative expertise. These are the deliberative and rationalist paradigms of expert public administration.

1.1 The Rationalist Paradigm

The starting point for much administrative law discussion concerning administrative expertise is the rationalist paradigm.²¹ Under this model, expert administration is given a specific fact based task by Congress which they are to carry out in an effective and efficient manner. The rationalist paradigm has its intellectual roots in Weberian theories of bureaucracy.²² It is a model which is highly attractive to proponents of liberalism because it advocates limited and restrained government based on a set of specified rules.²³ The rationalist paradigm is the extreme of the administrative manifestation of the rule of law²⁴ and has had and still has a powerful hold on American government.

²⁰ Croly (1915) at 375.

²¹ Frug (1984) arguing that the starting point is the formalist model. Stewart (1975) discussing the transmission belt model.

²² Weber (1968) at 956-1005. For the problems of applying European theories to the US see Skowronek (1982) at 5-8. Also see Fischer (1990) at 77-84.

²³ Lowi (1987) at 22. Also see Pound (1946) for a classic example of the liberal point of view.

²⁴ Porter (1995) at 8.

Rationalist expertise has three key and interrelated elements – scientific rationality, clearly defined legislative boundaries and an expectation that an administrative agency is a ‘servant’ to Congress. The first, and most important of these is that the nature of rationalist expertise is defined in relation to scientific bodies of knowledge. Public administration is a means by which scientific knowledge and management techniques can be mobilised for specific tasks. It is highly efficient, effective and objective. It is also a means of avoiding political corruption. If science is the basis of decision making, avarice or bias do not have a role to play.²⁵

Such an assumption rests on faith in positivistic scientific method as the primary tool of regulation.²⁶ As Veblen in the 1930s noted:

we see functional competence displacing grotesque and wasteful incompetence, facts displacing disorder; industrial planning displacing industrial chaos.²⁷

This faith in science thus spreads beyond the traditional boundaries of scientific research and into the realms of social planning. Scientific methodology is not only a way of finding facts but also a way of deciding how to take action on the part of society. Success in World War II with operational systems seemed to confirm this view.²⁸ This notion of science as a means of planning has given rise to a science of ‘managerialism’ which is also part of the rationalist framework.²⁹ An example of this is ‘comprehensive rationality’ which is a process of decision making which is

²⁵ Fischer (1990) at 82.

²⁶ Lippmann (1915) at 292.

²⁷ As quoted in Fischer (1990) at 85.

²⁸ Snow (1961).

²⁹ Burnham (1942).

based on the presumption that the best decisions are those which proceed in a highly rational manner using all information available. The steps are:

- (1) recognition of a problem and its cause;
- (2) the identification of goals and the prioritizing of them;
- (3) the assembly of all possible alternatives for action and the information on them;
- (4) the assessment of each alternative according to a set of predetermined standards Eg. equity and efficiency; and
- (5) the selection of the alternative which achieves the goals and is most consistent with the standard for evaluation.³⁰

As a methodology, comprehensive rationality would seem a perfect way for expert public administration to make a decision. It is consistent with a scientific approach to issues and ensures that an agency has taken into account all relevant factors in making its decision. Administration may rely on non-scientific values in decision making but if they do they must do so only in limited and explicit circumstances.

The second element is that the authority of the rationalist expert administrator should be clearly defined by legislation. Its legislative commands should be precise and should be read strictly. This ensures that expert administration knows its task and can carry it out properly. Moreover, it ensures that it cannot overreach its authority. The reality, of course, is that precise identification of an administrative task is neither possible nor does it often occur. Yet under the rationalist paradigm there will still be attempts to draw such boundaries.

Moreover, these attempts highlight the third element of the paradigm - the role of expert bureaucracy is as an *adjunct* to the democratic process. The authority

³⁰ McGarity (1991) at 10.

of an expert administrator arises from the combination of their legislative mandate and their scientific knowledge. The task of the rationalist administrator is to apply their specialist knowledge to the legislation.³¹ As such, their authority extends no further. Expert administration has no place in the mainstream democratic process because it cannot function in a democratic manner but only in a scientifically rational manner.³² Its independence from central administration is to ensure its analytical purity. Policy and democratic debate should be the domain of Congress.³³ This is not to say that rationalist administration does not engage in public participation but that such participation is aimed at improving the knowledge base of the expert administrator. By consulting with the public, more information will come to light which the expert can factor into her rational decision making process. This information may not only be facts but it could also be information about interest group or individual preferences. The task of the administrator is merely to process this information not engage in a two way dialogue.³⁴

From the perspective of ensuring that any decision of an expert agency is a legitimate one, the rationalist paradigm is seductive. By constraining administrative power it ensures that democracy is not dominated by instrumental rationality. Through policing the methodology of decision making as well as keeping administration within its assigned boundaries as a fact finder, the 'legitimacy' of a

³¹ Woodrow Wilson's understanding of administration was on this basis. See Wilson (1941). Also see Edley (1990) for the problems with this view.

³² For a discussion of the differences between the two see Habermas (1984).

³³ Edley (1990) at Chapter One.

³⁴ For discussions of pluralism see Stewart (1975) at 1681, 1684, 1759; Craig (1990) at 117; Sunstein (1985) at 83; and Shapiro (1988) at 44-7.

decision can be easily judged. This was the philosophy behind Judge Leventhal's version of 'hard look' review which will be discussed in Chapter Four. The rationalist approach is also attractive to those holding others to account because the process of assessing the decision is seemingly objective as one is not judging the substance of the decision but merely the analytical rigor of the result reached.³⁵

This rationalist vision of expertise has been heavily criticised from different quarters. It has been criticised on the basis that the rationality of expert bureaucracies is 'bounded' and the actions of such agencies will not be comprehensively planned and based on full information. Rather such institutions will 'muddle through' on incomplete information.³⁶ Gaps in knowledge are not simply due to laziness on the part of the agency but also because some knowledge simply does not exist. This critique and the theories of incrementalism associated with it are still in essence adhering to the rationalist paradigm.³⁷ They still presume that the authority of the expert derives from scientific knowledge and that administration is instrumental to democracy. The insight of these writers is that perfect analysis is impossible and thus we should make do with bounded rationality.

Another critique has been that science is merely a cloak for the exercise of political ideology and that *any* use of science should be viewed with suspicion.³⁸ That is, scientific authority is simply another means of political domination

³⁵ Shapiro (1988) at 159 and McGowan (1979) at 687.

³⁶ Lindholm (1959).

³⁷ Shapiro (1968) and Diver (1981).

³⁸ Porter (1995) and Habermas (1987) at Chapter Six.

because few people can challenge scientific authority.³⁹ The extreme solution to this problem is the rejection of bureaucracy and science for participatory democracy.⁴⁰

Alternatives to the rationalist paradigm are however, not merely limited to either a complete abandonment of bureaucracy or a grudging acceptance of an inferior model. Rather, there is another paradigm which assigns to expert public administration a very different role - that of the deliberative expert.

1.2 The Deliberative Paradigm

Alexander Hamilton in the *Federalist Papers* prescribed a dynamic and energetic role for centralised public administration. Rather than being a servant to the political process such administration would play an important part in leading the democratic public.⁴¹ While not the sole source of the deliberative paradigm, Hamilton's proposals signify the fact that the role of public administration (whether central or independent) has not always been classed as rationalist and there has been a constant stream of proponents who have argued that expert public administrators cannot be simply fact finders.⁴²

Deliberative expert administrators are conscientious problem solvers in the public interest. There is an expectation that the problems they must solve are

³⁹ The literature is a very large one. Some of the better examples include Douglas & Wildasky (1982); Brown (1992); and Tribe (1973).

⁴⁰ Beck (1992).

⁴¹ Hamilton, Madison & Jay (1992) at 359-360. The main papers are No. 69-75. Also see Cook (1996) at Chapter Two and Rohr (1986) at 1-4.

⁴² Croly (1915); Lippmann (1914); Frankfurter (1930); Long (1952) and Landis (1938). Also see Cook's discussion of 'constitutive' rationality. Cook (1996) at Chapter Six. For more recent discussions see Freeman (1997) and NRC (1996).

complex, and polycentric.⁴³ The expertise of administration lies not in the strict application of specialised knowledge but more in the ability to find a solution to a problem. The legitimate means of doing this is through deliberation. Moreover, such agencies should not be isolated from the public but rather leading it. Three factors of the deliberative paradigm can be identified. First, deliberative experts are complex problem solvers.⁴⁴ Second, in doing so they rely on many different disciplines and must deliberate. Third, they have a substantive democratic role to play. Each of these factors are dealt with in turn.

First, the type of problems which are regulated by public administration are invariably complex. Complexity arises primarily out of the fact that regulatory problems are polycentric. That is, there are many different people and issues involved and invariably one action will have a widespread and often unexpected impact. Railroad rate making is a classic example of this. As such, these problems need some centralised co-ordination and cannot be managed ad hoc by private law mechanisms.⁴⁵ Moreover, there is often very little information about the impact of many actions, particularly when one is attempting to predict future behaviour.

Yet this is not the only or the major reason for complexity. Public administration is required to regulate in the public interest. In an industrial, pluralistic society, the public interest is a 'texture of multiple strands'.⁴⁶ There will be a variety of viewpoints about what is the appropriate way in which any subject

⁴³ For a discussion of polycentricity see Fuller (1978) at 395-7 and Chayes (1975) at 1302.

⁴⁴ Reich (1966) at 1240; Freeman (1997); Frankfurter (1930) at 81 and 122 and Frankfurter (1927) at 621.

⁴⁵ See Schroeder (1986) for the consequences for liberalism of this problem.

⁴⁶ *FPC v. Hope Natural Gas Co.* 320 US 591, 627 (1944) (The *Hope Natural Gas* case)

matter should be regulated. Those different viewpoints will not only arise out of different assessments of what are the facts but also different 'worldviews'. Any issue for regulation will invariably be highly politicised and any regulatory action will have social consequences.

If we understand public law problems as such, it quickly becomes clear why expertise cannot be rationalist. As Lippmann argued in 1914, positivist scientific method, 'all cold and iced' is not well suited to being applied to the subtlety of life'.⁴⁷ If science is to be mobilised on behalf of the public this must be done in a dynamic and a creative manner which is sensitive to the complexity of social problems. The source of the authority of the deliberative expert lies in their ability to solve a problem and not in a particular discipline. This is a subtle but important distinction. What becomes the focus of attention is not how strictly did an expert adhere to the methodology of their discipline (although this may be relevant) but instead how they set their minds to finding a solution to the social dilemma before them.⁴⁸

The next element of the deliberative paradigm relates to how exactly they should solve problems. Clearly, the exercise of wisdom, intuition and judgement will have some role to play.⁴⁹ There is also an expectation that the deliberative expert will engage in trial and error and that regulatory programs must evolve.⁵⁰ Social and environmental conditions will always change. The complexity of

⁴⁷ Lippmann (1914) at 290-3.

⁴⁸ Sunstein (1988) at 1543.

⁴⁹ Landis (1938); Frankfurter (1930); and Croly (1915)

⁵⁰ Frankfurter (1930) at 49-51; Lippmann (1914) at 325; President's Committee on Administrative Management (1937) at 216; Landis (1938) at 112; and Croly (1915) at 359.

problems is such that the regulatory answers to them are rarely obvious. Moreover, such problems cannot be solved by the application of one body of knowledge. Problems require a transdisciplinary approach. Meeth describes transdisciplinary in the following manner:

Transdisciplinary is the highest level of integrated study and means beyond the disciplines. Whereas interdisciplinary programs start with the discipline, transdisciplinary programs start with the issue or problem and through the processes of problem solving, bring to bear the knowledge of those disciplines that contribute to a solution or resolution.⁵¹

These factors however, are not the core element of the deliberative paradigm. Put simply, if public administration is to solve complex problems in the public interest they must do so by *both* analysis *and* deliberation.

Deliberation is a collective process of communication by which issues are debated so as to arrive at a solution which is not merely the sum of individual points of view.⁵² Science may not be able to solve problems but it has an important role to play in informing deliberative problem solving.⁵³ Deliberation without analysis cannot resolve real life problems but more importantly deliberation has a transformative aspect.⁵⁴ In a deliberative process, a range of different factors and people will be brought together and the result will be a product of the thoughtful consideration of these different factors. Deliberative processes by their nature are messy and not easily compartmentalised. Moreover, they should ideally be ongoing rather than a sporadic. The continuous supervision provided by a expert agency is

⁵¹ Meeth (1987).

⁵² This definition is based on Cohen (1989); Benhabib (1994) at 33-4; and NRC (1996) at 73.

⁵³ Frankfurter (1930) at 130.

⁵⁴ For the importance of this process see Habermas (1996) at 351; Reich (1985); Seidenfeld (1992) at 1547; and Sunstein (1988) at 1545.

clearly a fertile ground for ongoing debate. Those who advocate the deliberative paradigm are quick to point out the importance of a permanent expert administration.⁵⁵

From the point of view of solving transdisciplinary regulatory problems, deliberation is a far more promising method than the employment of rationalist expertise.⁵⁶ It implicitly recognises the limitations of any particular body of knowledge and that in solving public regulatory dilemmas a collective process is a superior one. Deliberation is not necessarily synonymous with public participation and deliberation may occur among only a select group. This was the case with the deliberative paradigm in early 20th century America. New Deal legal architects such as Landis and Frankfurter were clearly not proponents of participatory democracy⁵⁷ but their emphasis on the importance of commissions of inquiry and consultative explorations of problems was in the deliberative vein.⁵⁸ Frankfurter argued that commissions of inquiry were important vehicles for ‘defining issues, sifting evidence, posing problems and enlightening the public mind’.⁵⁹ Likewise, the Progressives before them, argued that science needed to be open to the

⁵⁵ Hamilton, Madison & Jay (1992) at 360; Croly (1915) at 356; Frankfurter (1965) at 236; Long (1952) at 816; NRC (1996) at 18 and Landis (1938) at 26.

⁵⁶ Habermas (1996); Williams (1994); and NRC (1996).

⁵⁷ Although Frankfurter and Croly clearly saw democracy as important. Frankfurter's *The Public and Its Government* was just as much about the need to revive democracy as it was about the promotion of expertise. See Frankfurter (1930) and Croly (1915).

⁵⁸ Landis (1938) at 41; Frankfurter (1930) at 162-3. For a contemporary discussion of the deliberative potential of commissions of inquiry see Jasanoff (1992).

⁵⁹ Frankfurter (1930) at 162-3.

democratic method.⁶⁰ Scientific methodology would otherwise ‘distort’ the subject matter of regulation.⁶¹

Within public law, the main proponents of deliberation have been the civic republicans⁶² and as Seidenfeld has argued, that body of theory provides a strong justification for the administrative state and in particular its grants of policymaking power to expert public administration.⁶³ Deliberation does not only ensure that problem solving is not dominated by science but also that public administration is not dominated by one point of view. Administration must be constantly open and responsive. This is not to say they must always take every view into account but that they cannot be rigid in their outlook.

The third element of the deliberative paradigm clearly follows on from this. The role of expert deliberative administration is that it can combine analysis and deliberation in an arena isolated from *mainstream* political debate. It lifts problems out of ‘partisan and factitious political controversy’⁶⁴ and solves them through a dialogue informed by analysis. As such the deliberative expert is not constrained by a rigid constitutional structure⁶⁵ in which administration is the mechanical fact finding servant of Congress. Public administration will often encompass all three

⁶⁰ Croly (1915) at Chapter 18 and Lippmann (1914) at 274. Shapin (1994) and others argue that deliberation is the way science has progressed.

⁶¹ Lippmann (1914) at 292.

⁶² It is important to remember that this body of theorists are writing in response to pluralist theories and that their perspective is invariably a constitutional one. See Michelman (1986); Sunstein (1988); Sunstein (1985); Feldman (1993); Michelman (1988) and Reich (1985).

⁶³ Seidenfeld (1992) at 1515.

⁶⁴ Croly (1915) at 361.

⁶⁵ Frankfurter (1930) at 79, 87 and Landis (1938) at 89. For a discussion of the problems caused when one attempts to do so see Edley (1990).

arms of government, not only engaging in fact finding but also law making, adjudication and policy debate.⁶⁶ Moreover, the rules of evidence or scientific methodology while relevant are not the basis for authority because they can hamper the finding of solutions.⁶⁷

The deliberative paradigm, clearly envisages a role of democratic leadership for expert administration.⁶⁸ Croly argues that the expert administrator is:

more a probation officer than a policeman, he is more a counselor and instructor than a probation officer. He is the agent not only of a merely disciplinary policy but one of social enlightenment and upbuilding. He must seek above all to use the authority of the state and its materials and scientific resources for the encouragement of voluntary socializing tendencies and purposes.⁶⁹

The obvious danger of such a role is that the line between 'agency' and paternalism is a fine one. What the importance of leadership stresses is that administration must be active and it cannot rest its authority on references to its expertise or science.⁷⁰ Analysis is important but cannot be the sole justification for authority. Likewise deliberation cannot alone solve a problem. Administration must use its authority to resolve disputes and in doing so must combine both analysis and deliberation.

An aspect of this democratic role is that ideally, expert administration should be *trusted in*.⁷¹ Trust is not only important from the perspective of broad notions of democratic legitimacy but also from the point of view of aiding the

⁶⁶ Long (1952) at 810 and Edley (1990).

⁶⁷ Davis (1942); Wigmore (1922); Verkuil (1974) at 193; and Wright (1974) at 393.

⁶⁸ Croly (1915) at Chapter 18.

⁶⁹ Ibid. at 354.

⁷⁰ Ibid. at 365; Frankfurter (1930) at 151; and Lippmann (1914) at 292.

⁷¹ This concept of trust may tie in with the issue of 'civic virtue'. There are however problems with this concept. See Habermas (1996) at 487.

deliberative process engaged in by the agency.⁷² The deliberative paradigm does not presuppose that there *is* trust but rather requires that trust must be fostered if public administrators are going to do their job.⁷³ The deliberative process, while requiring trust to work can also promote trust.

Deliberative problem solving unconstrained by methodology or constitutional structures raises the spectre of unchecked authority. Yet, in actual fact the deliberative expert does have a number of constraints on the exercise of discretion. The first, is that the agencies must always exercise their discretion in the public interest to solve the problems set them by Congress.⁷⁴ The ‘public interest’ need not be a unified goal and the task of the agency must be to deliberate and take into account, in a conscientious manner, numerous and incommensurable worldviews.⁷⁵ Legislation is thus not ignored but there is no expectation that legislation will provide a blueprint for the exercise of discretion.

The second constraint on discretion is that deliberative expert administration must *actively* solve a problem. If problems are complex, simplistic solutions are unlikely to suffice and expert administration must show they set about solving the problem in a conscientious manner. This is best done through deliberation informed by analysis. As noted above deliberation ensures that

⁷² Benahabib (1994) at 32. The literature on trust is a very large one. For trust in a democracy see Misztal (1996) at 26-8. For trust and expert administration see Giddens (1990) at 29-36.

⁷³ This is even clear from a reading of Croly (1915); Frankfurter (1930); and Landis (1938)

⁷⁴ Freeman (1997) at 22. A key example of this is the FCC. See *FCC v. RCA Communications* 346 US 86 (1952) (The *RCA Communications* case) and Mayton (1989) and Brooks (1986) for a discussion of this standard.

⁷⁵ An explicit example of this reasoning is in the ten contradictory standards set out in the Magnuson Fishery and Conservation Act 1976 16 USCA §1851.

problem solving is in the public interest. A recent example of the deliberative paradigm is the proposal by the National Research Council that risk characterisation should be an ‘analytic- deliberative’ process.⁷⁶ This will be discussed in more detail in Chapters Three and Six.

As with the rationalist paradigm, the deliberative paradigm has also had its share of critics. There have been those who have argued that the paradigm paints too rosy a picture of the promise of deliberative processes and ignores problems of agency capture and interest group politics.⁷⁷ The existence or extent of agency capture is an issue which has been the subject of many studies and revisionist histories⁷⁸ and there can be no attempt here to undertake the empirical analysis required. What is clear, however is that despite the fact that the rationalist paradigm attaches great value to ‘objectivity’ it has not avoided these problems but has merely transformed the dialogue into a scientific one, political problems being hidden under dense technical debates concerning methodology. A paradigm in which accountability is explicitly judged on the quality of *candid* deliberation is far more likely to avoid this problem. The deliberative paradigm requires decision makers to focus on the solving of problems and part of this must be the explicit treatment of value conflicts. By doing so, bias and ‘capture’ are more likely to be exposed and thus negated and managed.

Another criticism has been that a deliberative paradigm is a justification for elitist democracy and that the concept of civic leadership is a way of ousting the

⁷⁶ NRC (1996).

⁷⁷ Williams (1994); Bernstein (1970); and Frug (1984) at 1318.

⁷⁸ Bernstein (1970).

public.⁷⁹ The real problem that these critics have is with expertise. The reality however, is that a complex industrial nation does need some form of expertise. This was the realisation of Progressives in the early 20th century.⁸⁰ The question is how should such expertise be mobilised in government. The rationalist paradigm by stating that there are certain questions which are the domain of scientific authority bolsters that authority. In contrast, in the deliberative paradigm, expertise must be tempered with *some* form of deliberation and open decision making. What that form will be, will depend upon the circumstances and context.

1.3 Accountability

Like all paradigms, the two discussed above are not photographic descriptions of reality but rather a blend of prescriptions and descriptions. The purpose of such paradigms is to provide frameworks for solving problems and finding maps for future action. This is particularly so in the realm of accountability. In the next section we will see how these paradigms influenced judicial review doctrine. The models carry us beyond simple descriptions of administration as ‘expert’ and ‘participatory’. This is because both models and nearly all forms of public administration combine these elements.

The focus of analysis is accountability. The two paradigms provide quite different answers to the question of what is an accountable expert administrative agency? In relation to the rationalist paradigm, accountability is established through the strict policing of the legislative and disciplinary boundaries of the

⁷⁹ Note (1996); Kloppenberg (1995); Frug (1984); and Kronman (1994).

⁸⁰ Croly (1915) at 105-132.

agency. If it can be established that administration has carried out the task specifically given to them by Congress in an analytically rigorous manner, then they are deemed to be reasonable. This model is well known to administrative law scholars and as we shall see in Chapter Five, scope of review is presently based on it.

In contrast, the accountability of a deliberative expert is established through showing that the agency actively deliberated, engaged in some analysis and conscientiously exercised its discretion on the basis of their knowledge and experience. For those seeking simple rules of accountability, the conceptual fuzziness of how one holds a deliberative expert to account is a fatal and unforgivable flaw. Not only is there seemingly no way in which to assess when an administrator is acting in an appropriate manner but it also grants the reviewing court a surfeit of power in carrying out their task.⁸¹ Despite this problem however, deliberative models of accountability have been recently proposed by some administrative law scholars.⁸² Moreover, as we shall see, there is a large body of case law in which the deliberative paradigm has underpinned effective judicial review.

2. The History of Scope of Review in American Administrative Law

Judicial review is a specific example of where public administration is called to account. Administrative law and in particular judicial review, has been largely developed in response to the rise of expert bureaucracy. The massive

⁸¹ Shapiro (1988).

expansions of the state have been accompanied by a growth in administrative law. The courts have attempted over time to mould their task to their understandings of administrative expertise.

The focal point for their efforts has been scope of review doctrine. Scope of review doctrine, for most public law scholars has been a deeply frustrating area of law and as Levin notes it is ‘abstract, difficult and constantly evolving’.⁸³ Its opaqueness has led many to presume that it is unprincipled. Gelhorn and Robinson have argued that it has ‘no more substance than a seedless grape’.⁸⁴ This has led to this body of doctrine either being written off as a thin disguise for the exercise of judicial ideology, or being dealt with in the overly pragmatic way that Davis suggested.⁸⁵

Part of the difficulty with scope of review doctrine is that it has evolved over time as the product of judicial ingenuity and sporadic legislative intervention.⁸⁶ Historical evolution has meant that how ‘substantial evidence’ was defined in 1939 is not the same as how it was defined in 1974 or in 1991.⁸⁷ This historical development will be charted in the next section. Another reason for confusion is that in carrying out judicial review, the courts must base their

⁸² Edley (1990); Freeman (1997); and Shapiro (1988).

⁸³ Levin (1996) at 652.

⁸⁴ Gelhorn & Robinson (1975) at 780-1.

⁸⁵ Davis (1984) at §29.1.

⁸⁶ Attorney General’s Committee (1941) at 76.

⁸⁷ Compare *Rochester Telephone Corp. v. US* 307 US 125, 138-9 (1939); *Industrial Union Dept, AFL-CIO v. Hodgson* 499 F.2d 467 (DC Cir. 1974); and *Corrosion Proof Fittings v. EPA* 947 F.2d 1201 (5th Cir. 1991).

reasoning on factors outside the law.⁸⁸ In the Attorney General's Committee Report in 1941, it was noted:

In exercising their powers of review, the courts have been influenced it is commonly thought, by a variety of inarticulate factors: the character of the administrative agency, the nature of the problems with which it deals, the nature and the consequences of the administrative action, the confidence which the agency has won, the degree to which the review would interfere with the agency's functions or burdens the courts, the nature of the proceedings before the administrative agency, and similar factors.⁸⁹

Expertise has been the most important factor which has affected judicial review.⁹⁰

Many of the elements listed above are really just constituents of a paradigm of expertise. This underlying paradigm will not only determine how phrases such as 'arbitrary and capricious' or 'substantial evidence' are defined but will also help courts assess how much importance should be attached to the fact/law/policy divide; the administrative record; or to the role of consultation. The paradigm will guide the courts in how deferentially or how intensively they should review *different* aspects of administrative action. It will alert the courts to what are the 'danger signals' that suggest a decision maker has gone astray.⁹¹ The paradigm of administrative expertise is thus a major driving force behind scope of review doctrine.

The best way to illustrate the importance of the rationalist and deliberative paradigms to scope of review doctrine is through an exploration of the history of doctrine and how it has been heavily influenced by understandings of expertise. The following analysis is by no means an exhaustive study of administrative law

⁸⁸ Mashaw (1997) at 175; Edley (1990) at Chapter Four; and Strauss et al (1995) at 519.

⁸⁹ Attorney General's Committee (1941) at 91.

⁹⁰ Butler (1946) and Jaffe (1965) at 577-9 noting the importance of expertise but arguing it should not be dealt with simplistically.

but what it does clearly highlight is that judicial review doctrine has changed over time.⁹²

3. The Interstate Commerce Commission and the Early 20th Century

The creation of the ICC in 1887 provided the Supreme Court with their first major opportunity to judicially review the action of an expert administrative agency.⁹³ The ICC was delegated the task of investigating the setting of railroad rates and laying down their own set rates in any given case by ad hoc adjudication.⁹⁴ This was an attempt to destroy the natural monopoly over transportation that railroads created.⁹⁵ The ICC did not easily fit into a conventional separation of powers framework, combining as it did, judicial, legislative and administrative power.

At its setting up, there was a debate concerning what should be the role and nature of such an administration. While most agreed it should be an independent expert agency there was a diversity of views over what exactly that entailed. As already noted such a body created a tension between democratic liberty on the one hand and centralised specialisation on the other. Some saw the Commission as a dangerous instrument for tyrannical power and, as such, insisted care should be taken to constrain its power to fact finding. Others saw the Commission as a ‘way

⁹¹ *Greater Boston Television Corp. v. FCC* 444 F.2d 841, 851-2 (D.C Cir. 1970).

⁹² For histories of administrative law see Horowitz (1992); Rabin (1986); Stewart (1975); and Frug (1984).

⁹³ See Woolhandler (1991) for judicial review case law before 1887.

⁹⁴ McGraw (1984) at Chapter Two.

⁹⁵ Berle (1917) at 440.

to compensate for the deficiencies of a representative body formulating a regulatory policy'.⁹⁶ It was argued that the ICC should be a 'mediator and counsellor between the railroads and the public'.⁹⁷ This deliberative paradigm was perhaps most vigorously put forward by Thomas Cooley (the first ICC Chairman) who argued that the power of the ICC should be used in an aggressive and creative way to further the public interest.⁹⁸

Railroad rate setting was perceived by the Supreme Court to be a highly complex and difficult exercise.⁹⁹ This was because the Commission had to take into account the interests of the whole country and not just a set of particular interests.¹⁰⁰ As such, any rate would have political consequences and one of the justifications for setting up this body was that, by being independent, it would be better able to find some resolution to this very complex issue. This was because it was not only a fact finder but also removed from the *mainstream* political process.¹⁰¹ Issues could be dealt with in a transdisciplinary way that focused on the specifics of the problem rather than be subsumed by broader political platforms. Rate making was also difficult because the Commission was dealing with future

⁹⁶ Senator Collum as quoted in Cook (1996) at 82. For a history of the debates surrounding the ICC's creation see Cook (1996) at 79-86; Rohr (1986) at Chapter 7; and Skowronek (1982) at 138-150.

⁹⁷ Railroad Executive Albert Fink as quoted in Cook (1996) at 83.

⁹⁸ Skowronek (1982) at 151.

⁹⁹ *Cincinnati* at 194.

¹⁰⁰ *ICC v. Chicago Rock Island & Pacific Railway Co* 218 US 88 (1910) (The *Chicago Rock Island* case).

¹⁰¹ *ICC v. Illinois Central Railroad Co.* 215 US 452, 478 (1910).

events rather than past events and thus their rate making decisions were an exercise in ‘prophecy’.¹⁰²

Due to the type of problem that the ICC was dealing with, their expertise was not limited to a particular discipline. The Supreme Court was well aware that practical experience in the area was also required.¹⁰³ Moreover it was important that the body exercised its ‘trained judgement’.¹⁰⁴ Railroad regulation was very much seen as a ‘political art’ and the flexibility of the ICC was viewed as highly important.

The Court saw the ICC playing a deliberative role and did not seek to limit the power of the ICC to methodology. The Court emphasised the importance of flexibility in the solving of problems and was not concerned that the ICC did not fit into a tripartite separation of powers model.¹⁰⁵ The emphasis was thus on the creative solving of problems. Creativity presumed that the task of the administrative agency was not merely to garner the relative interests, but rather to find a solution in the public interest which was the product of a considered decision making process. This can be seen as a limited transformative deliberative process. The recognition of this can be seen in the approach to judicial review.

¹⁰² McCraw (1984) at 34 and *US v. Morgan* 313 US 409, 415 (1940).

¹⁰³ *ICC v. Louisville & Nashville Railway Co.* 227 US 88, 98 (1913)(The *Louisville* case); *New York N.H. & H.R. Co. v. ICC* 200 US 361, 401-2 (1906)(The *New York Railway* case).

¹⁰⁴ Berle (1917) at 441; *Chicago Rock Island* at 655; *J.D. O’Keefe v. US* 240 US 294, 303 (1916)(The *O’Keefe* case); and *Louisville* at 98.

¹⁰⁵ *Texas* at 219.

3.1 Expertise and Scope of Review

The judicial approach found in the case law of this period has been criticised as being too deferential and too intensive.¹⁰⁶ The reality is that the Court was both.¹⁰⁷ From early on, the Court found their task difficult because of the ambiguity of the ICC's role. On the one hand, the ICC was carrying out adjudication and thus the relationship between the court and the agency could be likened to that between a lower court and a court of appeal. Thus for example, from early on the Supreme Court divided any decision of the Commission along the lines of the fact/law distinction as they would a decision on appeal.¹⁰⁸ In the late 19th century the Court was quick to replace an ICC interpretation of a legislative phrase with their own interpretation. The practical result of this was that the factual inquiry could then be reviewed or overruled because it had flowed from an incorrect interpretation.¹⁰⁹ Moreover, courts were concerned to preserve individual liberty and thus an emphasis on constitutional due process and the stopping of commissions engaging in 'fishing expeditions' resulted in intrusive review.¹¹⁰ They also sought to prevent any unwarranted infringements on property rights.¹¹¹

¹⁰⁶ Rabin (1986) at 1229; Rohr (1986) at 107-110; and Skowronek (1982) at 150-162.

¹⁰⁷ Rabin (1986) at 1236 discussing problems with interpreting the case law of this period.

¹⁰⁸ There was nothing in the ICC Act to require such an approach.

¹⁰⁹ *Texas* at 239. For another example of this relationship see *Louisville & Nashville Railroad Co. v. Behlmer* 175 US 648, 654 (1900) (The *Behlmer* case)

¹¹⁰ Rohr (1986) at 109; *ICC v. Brimson* 154 US 447, 479 (1894); *East Tennessee Virginia & Georgia R.C. v. ICC* 181 US 1, 12 (1901) (The *East Tennessee* case); *FTC v. American Tobacco Co.* 264 US 298, 306 (1924); and *Behlmer*.

¹¹¹ The main evidence of this being *Lochner v. New York* 198 US 45 (1905). Also see *Atlantic C.L.R. Co. v. North Carolina Corp. Commission* 206 US 1, 21 (1906) (The *Atlantic* case).

On the other hand however, the Court soon realised that the lower court/court of appeal analogy was not a very helpful one because it ultimately cast the ICC simply as a fact finder when clearly their role was far more complex. Thus their application of the fact/law distinction was an extremely loose one. The ‘facts’ they referred to were not technical issues but rather socio-political events and factors which the ICC may or may not take into account.¹¹² The Court noted that fact finding in rate making had to be based on judgement rather than just empirical analysis.¹¹³ Moreover, the reason why they overturned interpretations of the law was that the ICC had not properly deliberated and considered what was the exact nature of a legislative term such as ‘reasonableness’. A technical application of the Act was not enough.¹¹⁴ In deciding whether the construction of an Act was the correct one the courts would refer in an expansive fashion to the type of problems that the ICC was trying to solve.¹¹⁵

By the early 1900s, the Supreme Court relaxed its iron grip on interpretation and procedure.¹¹⁶ The relaxation of that grip was mainly due to an appreciation that the expertise of the ICC went beyond being mere fact finders to a familiarity with the ‘complexities, intricacies and history of rate making’.¹¹⁷ The Court remained explicit in their understanding that railroad rate making was not an

¹¹² *ICC v. Chicago Burlington & Quincy Railway Co.* 186 US 320, 338 (1902).

¹¹³ *ICC v. Alabama Midland Ry Co.* 168 US 144, 163 (1897); *O’Keefe* at 303; *Illinois Central Railroad Co. v. ICC* 206 US 441, 455 (1906) (The *Illinois Central* case); *Tennessee, V. & G. R. Co. v. ICC* 181 US 1, 27 (1901); *Behlmer* at 673; and *ICC v. Clyde Steamship Co.* 181 US 29, 33 (1901).

¹¹⁴ *East Tennessee* at 9.

¹¹⁵ *Texas* at 211 and *New York Railway* at 391.

¹¹⁶ Skowronek (1982) at 260.

¹¹⁷ *Louisville* at 189.

exact science. Justice Holmes noted in relation to judicial review of one ICC decision:

But the action does not appear to be arbitrary except in the sense in which many honest and sensible judgements seem so. They express an intuition of experience which outruns analysis and sums up many unnamed and tangled impressions; impressions which may lie beneath the consciousness without losing their worth. The Board was created for the purpose of using its judgement and its knowledge.¹¹⁸

It is clearly a view that casts the administrator not as a rationalist expert but something more akin to a deliberative one. Experience was gained through the rough and tumble of working at the coalface of railroad regulation and in particular through their dealing with railroad companies.¹¹⁹ Moreover, the task of the ICC was highly controversial and as such, required that there be some closure to disputes. The court was well aware that in many cases an applicant would challenge a decision no matter what the ICC did.¹²⁰ This however, did not mean that the court could not or would not interfere, and in some cases they clearly did so.¹²¹ The reason for deference was thus to preserve deliberative space for the ICC.

As already noted, the Court was always quick to argue that close scrutiny should not be required of the evidence before the ICC because not only was the court not an expert but also because the ICC would always need to make a decision on imperfect information.¹²² The evidentiary standard was not a very high one and only in cases where the ICC made a decision on no evidence or made a ruling

¹¹⁸ *Chicago Burlington & Quincy Ry Co v. Babcock* 204 US 585, 598 (1907).

¹¹⁹ *Illinois Central* at 455.

¹²⁰ *ICC v. Illinois Central Railroad Co.* 215 US 452 (1910).

¹²¹ *ICC v. Northern Pacific Railroad Co.* 216 US 538 (1910).

¹²² *Cincinnati* at 194.

completely contrary to evidence would the decision be vacated.¹²³ Moreover the type of evidence required was not so much technical but more in relation to the socio-political and historical circumstances surrounding rate making.¹²⁴ Thus as long as the ICC had considered all the relevant factors, and at least some testimony supported their viewpoint, the decision would stand.¹²⁵ This formula became known as the substantial evidence test. The test was originally derived from appellate review of a jury trial and was consolidated in a number of cases in 1912 and 1913.¹²⁶ The comparison between jury and agency rested not so much on their role as fact finders but rather on their role as deliberative bodies.

The courts stressed that the fact/law distinction was not an accurate one and did not draw it with any precision.¹²⁷ Thus the basic logic behind the test was to allow for a flexible standard of review that lay between de novo and deferential review. The test left room for the court to substitute its interpretation of the law but not to weigh any aspect of the evidence.¹²⁸

The Court did however require that there was some evidence because otherwise the decision was felt to be ‘inconsistent with formal justice’.¹²⁹ This was

¹²³ *Louisville & Nashville Railway Co v. Finn* 235 US 601, 606 (1915) (The *Finn* case).

¹²⁴ *Ibid.*

¹²⁵ *Prentis v. Atlantic Coast Line Company* 211 US 210 (1908); *Illinois Central* at 455; *Chicago Rock Island* at 659; *Pennsylvania Co. v. US* 236 US 351, 361 (1915) (The *Pennsylvania* case); *Northern Pacific Railway Co. v. M.J. Solum* 247 US 477, 478 (1918); and *Manufacturers Railway Co. v. US* 246 US 457, 481 (1918) (The *Manufacturers* case).

¹²⁶ *ICC v. Union Pacific R.Co* 222 US 541, 547 (1912) (The *Union Pacific* case) and *Louisville* at 94.

¹²⁷ *Union Pacific* at 547 and *Dickinson* (1927) at 55.

¹²⁸ *Louisville* at 94 and *Arkon, Canton & Youngsville Railway Co v. US* 261 US 184, 204 (1923).

¹²⁹ *Louisville*

not to say that a decision maker had to adhere strictly to the rules of trial process¹³⁰ or that the decision would be a perfect example of methodological rigor.¹³¹ Justice Brandeis in *Western Paper Maker's Chemical Co. v. US*, in a typical statement of that time, noted:

In making its determinations the Commission is not hampered by mechanical rules governing the weight or effect of evidence. The mere admission of a matter which under the rules of evidence applicable to judicial review would be deemed incompetent does not invalidate its order.¹³²

Wigmore writing in the early 1920s also argued that the rules in jury trial had very little relevance to administrative process and that such rules would paralyse administration.¹³³ Adjudicative processes were important tools for securing private property rights and for deliberating about an issue but not for gathering and substantiating evidence.¹³⁴

The substantial evidence test easily accommodated the complex fact finding processes of a deliberative body. It became a popular standard of review and was included in a number of pieces of legislation.¹³⁵ Even when the legislature attempted to define the standard of review differently the court would revert to it as the basis for review.¹³⁶ In an era in which the court was scrambling to find a meaningful mechanism of review for administrative bodies that they were acutely aware were not just fact finders, the substantial evidence test was seemingly the

¹³⁰ Ibid.

¹³¹ *Manufacturers* at 482; *FTC v. Klesner* 280 US 19, 29 (1929)(The *Klesner* case); and *Pennsylvania* at 361.

¹³² 271 US 268, 271 (1926).

¹³³ Wigmore (1922) and Wigmore (1924-5).

¹³⁴ *Louisville* at 93

¹³⁵ Federal Trade Commission Act 1914.

most appropriate way of doing this within a conventional framework. Moreover, the test was consistent with the wider political and legal debate concerning the role of public administration in particular with Progressive thinking which by 1915 had become a popular body of theory.

The work of these writers attempted to reconcile democracy and science¹³⁷ and Progressivism was borne out of a Hamiltonian appreciation for the importance of administration combined with a desire for meaningful democracy.¹³⁸ Herbert Croly, writing in 1915, argued passionately for progressive democracy which encompassed expert administration. He argued that American public administration should be distinguished from routine bureaucracies and European counterparts. The importance of such bureaucracies was that they were ‘official custodians of a certain part of the accepted social program’.¹³⁹ Croly stated that an expert administrator must be a ‘social expert’¹⁴⁰ and in being held to account agencies should ‘be kept articulate with democracy’.¹⁴¹ Likewise Lippmann argued that expertise was necessary to bring about social change but that the role of ‘fantasy’ in science needed to be established.¹⁴² Facts were ‘plastic’¹⁴³ and the substantial evidence test was clearly based on an appreciation of this.

¹³⁶ Davis (1958) at 115 discussing the Immigration Act 1917.

¹³⁷ Croly (1909) and Lippmann (1914). Also see Forcey (1960).

¹³⁸ Gunther (1994) at 193.

¹³⁹ Croly (1915) at 360.

¹⁴⁰ Ibid. at 361.

¹⁴¹ Ibid. at 373.

¹⁴² Lippmann (1914) at 307.

¹⁴³ Ibid. at 325

The picture painted by these writers was of a highly flexible and dynamic form of public administration. Croly was critical of Woodrow Wilson's version of administration and separation of powers arguing it was too rigid.¹⁴⁴ Wilson tended to assign public administration the role of fact finding while Croly wanted public administration to be concerned with the enhancement of human life.¹⁴⁵ The influence of Progressivism can be seen in the substantial evidence test. As Felix Frankfurter noted:

To omit Croly's '*Promise*' [*of American Life*] from any list of half a dozen books on American politics since 1900 would be grotesque. It became a reservoir for all political writing after its publication.¹⁴⁶

Moreover, Progressivism clearly was the starting point for many New Deal reformers including Felix Frankfurter.¹⁴⁷ Thus the Supreme Court's approach to judicial review of administrative action during this period was part of a larger political trend.

3.2 Administrative Absolutism and the Constitutional Fact Doctrine

Not everyone however, felt that the task of expert administration should be so widely defined. Some, such as Roscoe Pound feared that the new agencies were engaging in 'administrative absolutism' which was not only detrimental to

¹⁴⁴ Levy (1985) at 170. The Progressive Era has often been understood in these rationalist terms. See Cook (1996) at 94-7. Also see Lippmann (1929) for his later reinterpretation of his work.

¹⁴⁵ Wilson (1941) and Croly (1909).

¹⁴⁶ Frankfurter (1939) at 307; Croly (1909); Gunther (1994) at Chapter Five; and Levy (1985).

¹⁴⁷ Croly also set up the *New Republic* in 1914.

democracy but also to the Rule of Law.¹⁴⁸ Ernst Freund was not as strident in his criticisms but was still concerned to ensure that administrative power was exercised in accordance with clear legal standards.¹⁴⁹ One way of doing this was to cast the administrator into the simple role of fact finder.¹⁵⁰ There were others, such as Berle and Gaus who recognised the problems inherent in being both concerned with the dangers of administrative power and the need for flexibility.¹⁵¹

It was out of this awareness of the dangers of administrative discretion that the 'constitutional fact' doctrine was put forward by the Supreme Court in the case of *Ohio Valley Water Co. v. Ben Avon* (The *Ben Avon* case).¹⁵² The majority held in that case that where the rates set by an authority were so low as to be confiscatory, the court should be able to review the facts de novo, otherwise the decision would be against the due process clause in the constitution. Such a decision was grounded in the logic that where administrative action could unreasonably infringe upon property rights, the decision should be intensely scrutinised.

While few would disagree with the motivation, the problem with the test was that its execution was rationalist in manner. In cases where there was a threat of infringement, administrators were required to establish that a series of facts existed. In doing so the court presumed that 'the existence of a fact is something

¹⁴⁸ Pound (1924). The English literature also had an impact and Lord Hewart's discussion of administrative lawlessness and the new despotism was often quoted. See Hewart (1929).

¹⁴⁹ Freund et al (1923) at 31.

¹⁵⁰ Bevis (1928) at 2. Supported by Wilson's concept of administration. See Cook (1996) at 96.

¹⁵¹ Gaus (1923-4) and Berle (1917).

absolute and fixed'.¹⁵³ This focus on the facts led to a focus on the methodology. Decision making was characterised as rationalist. In the later case of *Crowell v. Benson* it was stated:

The recognition of the utility and convenience of administrative agencies *for the investigation and finding of facts within their proper province*, and the support of their authorized action, does not require the conclusion that there is no limitation of their use, and that the Congress could completely oust the courts of all determinations of fact by vesting the authority to make them with finality in its own instrumentalities or in the executive department. That would be to sap the judicial power as it exists under the federal Constitution, and to establish a government of a bureaucratic character alien to our system, wherever fundamental rights depend, as not infrequently they do depend, upon the facts, and finality as to facts becomes in effect finality in law.¹⁵⁴

For many judges in the Supreme Court this depiction of the agency as a fact finder was problematic. In *Ben Avon* there had been a vigorous dissent by Justice Brandeis (with Justices Holmes and Clarke). The dissent was based on the argument that in rate making there were no universal formulas. Intensive scrutiny by the court was not desirable because the exercise of sound and reasonable expert judgement was likely to arrive at a better result.¹⁵⁵ Again, in *Crowell v. Benson*, Justice Brandeis, in dissent, argued that the purpose of an expert agency was not to be a fact gatherer of first instance. Rather its creation had been to withdraw certain types of inquiries from the courts.¹⁵⁶ Those types of inquiries being transdisciplinary and polycentric in nature.

Not surprisingly, the constitutional fact doctrine was a stillborn one and while it was applied in a number of other cases by 1936 it was to a large extent

¹⁵² 253 US 287 (1920) although note the dissent.

¹⁵³ Dickinson (1932) at 1074.

¹⁵⁴ 285 US 22, 56-7 (1932). Emphasis supplied.

¹⁵⁵ 299.

reinterpreted in line with the substantial evidence test. Already in *Crowell v. Benson* the court had not wanted to extend the doctrine beyond a limited number of cases.¹⁵⁷ What the doctrine did highlight is how from very early on, the problems of a rationalist approach were recognised by the courts. Moreover, its demise was due to the fact that the courts were well aware that the task of expert administration was not just to find facts.

By the beginning of the New Deal, the paradigm that underpinned judicial review was clearly a deliberative one. The main vehicle for scope of review was the ‘substantial evidence’ test. Under this test, the Court defined evidence in a broad way so as to include most considerations that came before an agency in adjudication, and stressed that it was not the task of the Court to weigh the evidence. In reviewing decisions, the Court was aware that the need to solve a problem was more important than analytical precision or adherence to adjudicative procedure. The process of solving such transdisciplinary problems required the integration of knowledge and experience and thus the need to engage in a deliberative process.

4. The New Deal

The New Deal was the era in which administrative law came of age. The dramatic expansion of expert public administration brought with it a recognition of

¹⁵⁶ 285 US 22, 88 (1932).

¹⁵⁷ The other area where the doctrine had been applied is immigration see *Ng Fung Ho v. White* 259 US 276 (1922).

administrative law as a distinct discipline.¹⁵⁸ Not only did a number of key text books begin to appear¹⁵⁹ but there was a general solidification of judicial review doctrine. While the New Deal was built on a general faith in ‘expertise’ there was also strong opposition to the growth of administration, particularly from legal circles. With that said, the dominant paradigm during this era was the deliberative one, albeit deliberation of an internal and limited kind.¹⁶⁰

As noted above, New Deal architects such as Frankfurter and Landis were heavily influenced by Progressivism.¹⁶¹ Agencies such as the Securities and Exchange Commission tended to be responsive and dynamic organisations made up of hard working government employees often hand picked by Frankfurter and the like who were given wide powers to exercise.¹⁶² It was clear that such powers needed to be exercised in a flexible manner.¹⁶³ As Dodd evocatively noted:

Modern regulatory statutes can provide no more than the skeleton and must leave to the administrative bodies the addition of flesh and blood necessary for a living body.¹⁶⁴

¹⁵⁸ In 1927 Frankfurter noted that administrative law was not accepted as a discrete body of law: Frankfurter (1927) at 616. Also see Merrill (1933) for a discussion of textbooks at the time. Also consider the fact that in the 1928-31 volume of *Index to Legal Periodicals* there were 1 1/2 pages of references and in the 1937-40 volume there were 10 pages of references with cross referencing to at least three other subjects.

¹⁵⁹ Frankfurter & Davison (1931); Freund (1928); and Dickinson (1928).

¹⁶⁰ Frug (1984).

¹⁶¹ In 1936, *Fortune* magazine found Frankfurter to be the ‘most influential single individual in the United States’. Quoted in Neely (1993) at 537. Also see Thomas (1960) at 22 describing him as the ‘Iago of administration’. See Frankfurter (1939) at 238.

¹⁶² McGraw (1984) at 181-5.

¹⁶³ For the importance of flexibility see *ICC v. Jersey City* 322 US 503, 523 (1944) (The *Jersey City* case); *Grey v. Powell* 314 US 402, 413 (1941) (The *Grey* case); Bilke (1933) at 8; and *A.L.A. Schechter Poultry Corp. v. US* 295 US 495, 551 (1935) per Cardozo J (The *Schechter* case).

¹⁶⁴ Dodd (1939) at 925.

This deliberative view of public administration was one shared not only by New Deal legal architects but also by the courts. In *Sunshine Anthracite Coal Co. v. Adkins* the Supreme Court noted that detailed legislation was not desirable because:

burdens of minutiae would be apt to clog the administration of the law and deprive that agency of that flexibility and dispatch which are its salient virtues.¹⁶⁵

The need for flexibility was also an argument for freeing the administrative process from procedural shackles, particularly in the realm of evidence.¹⁶⁶ Again in *Sunshine Anthracite Coal Co. v. Adkins* the Court noted in relation to what evidentiary burdens should be imposed by the courts that:

To require more [evidentiary procedures] would be to insist on a degree of exactitude which not only lacks legal necessity but which does not comport with the administrative process.¹⁶⁷

The emphasis was on the need for any fact finding process to be consistent with the context, and in particular the problem being solved. It was recognised that in some cases, while more detailed facts may be available, facts of a general nature would be acceptable.¹⁶⁸ Similarly, there was recognition that fact finding in an administrative context had little to do with fact finding in a court room setting and few comparisons could or should be made.¹⁶⁹

This was because the task of the expert administrator was not merely limited to fact finding. It also included the assessment of emotional reactions; the

¹⁶⁵ 310 US 381, 398 (1940).

¹⁶⁶ Bevis (1928) at 15; Dickinson (1927) at 14; Attorney General's Committee (1941) at 19; Wigmore (1922) at 263; Frank (1942) at 6-12; and see Davis (1942) for a detailed analysis of the problem.

¹⁶⁷ 310 US 381, 398 (1940).

¹⁶⁸ Davis (1942) at 389.

formulation of policies; the application of experience; and the need to take into account often unidentifiable issues.¹⁷⁰ This manifested itself as the exercise of wisdom and judgement.¹⁷¹ Likewise in developing such principles there was no expectation that expert administration could be purely objective. As Frank noted:

Judgement as to what were the purposes for which transactions were affected in the past is a human undertaking involving inescapable subjective factors in the minds of those who pass judgement and is therefore not safeguarded against error. Accordingly, as best we can, we must 'balance' one factor against another with adequate humility and awareness that we may err in a matter gravely affecting the lives of other human beings.¹⁷²

The focus was not on fact finding but rather on discourse and deliberation. Davis noted, in arguing against the rules of evidence in the administrative process, that the 'key is argument not testimony' and for this reason administration should be unshackled from legal limitations.¹⁷³ This need for agencies to engage in argument seemed a logical consequence of regulating in the public interest. As such, agencies needed to develop 'slow wrought principles' which would only come about through continuity,¹⁷⁴ practical judgement, and experience.¹⁷⁵

This is not to say the New Deal was an era of participatory democracy. As noted above, agencies such as the Securities and Exchange Commission were elitist in nature. As we have seen above deliberation is not necessarily akin to public

¹⁶⁹ *Tagg Brothers & Moorhead v. US* 280 US 420, 442 (1930)(The *Tagg Brothers* case).

¹⁷⁰ Davis (1942) at 418.

¹⁷¹ *International Association of Machinists, Toolmakers & Diemakers Lodge No. 35 v. NLRB* 311 US 72, 79 (1940) (The *IAMTDL* case)

¹⁷² Frank (1942) at 141 discussing the Securities and Exchange Commission.

¹⁷³ Dickinson (1927) at 15 notes 'But it [the law] is not quick enough or automatic enough, to meet the requirements of a complex social organisation'.

¹⁷⁴ *Federal Radio Commission v. Nelson Brothers Bond & Mortgage Co.* 289 US 266, 276 (1933)(The *Nelson Brothers* case) and *Board of Railway Commissioners of the State of North Dakota v. Great Northern Railway Co.* 281 US 416, 422 (1931).

consultation. Rather what the case law stressed in this period was the need for a conscientious exercise of discretion in light of all the factors. Problems should not be solved through analysis but also required an interchange of ideas.

4.1 Responsibility, Reasonableness and The Conscientious Exercise of Discretion

The general approach of the Supreme Court was one grounded in the deliberative paradigm. The substantial evidence test was still interpreted in the deliberative terms it had been in the early 1920s. The test was defined not in quantitative but in qualitative terms. In *Consolidated Edison Co. v. NLRB* Chief Justice Hughes defined as follows:

Substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.¹⁷⁶

The test continued to be included in numerous pieces of legislation including the National Labour Relations Act and the Fair Labour Standards Act.¹⁷⁷ In applying the test the courts were keen to ensure that agencies were not bound up in technical rules of evidence.¹⁷⁸ Although this was not to say that a mere suspicion was enough and ‘rumour’ was not substantial evidence.¹⁷⁹

It is also important to remember that the arbitrary and capricious test which from the 1970s onwards came to dominate judicial review was not particularly relevant during the New Deal period and it only became important after the passing

¹⁷⁵ *Crowell v. Benson* 285 US 22, 47 (1932); *Grey* at 413; and *IAMTDL* at 79.

¹⁷⁶ 305 US 197, 229 (1938).

¹⁷⁷ *Davis & Pierce* (1994) at 175.

¹⁷⁸ *Tagg Brothers* at 442 (1930) and *Rochester Telephone Corp. v. US* 307 US 125,138-9 (1939).

of the Administrative Procedure Act in 1946. As such, the substantial evidence test covered the field for substantive review of discretion. Up until the time of the Administrative Procedure Act in 1946 the approach of the Supreme Court was still very much a deliberative one.

The Court was not concerned with whether the decision was analytically precise but more importantly whether it was ‘fair and reasonable’ in light of the context.¹⁸⁰ As such, while it was important to ensure that the agency had provided a fair hearing, the agency did not need to strictly show how it had collected and analysed the evidence.¹⁸¹ Furthermore, what the court was concerned with was that there had been a sound exercise of judgement in light of all the factors.¹⁸² This was not a requirement of analytical precision but that some form of consideration was reflected in the record.¹⁸³ In short, the court saw their task as promoting in public administration ‘that rare combination of intelligence and rectitude without which any program of administration may prove to be a curse’.¹⁸⁴

Superficially, the Court’s approach would seem to be overly deferential. There was a presumption of the validity of an expert judgement and the courts did not see it as their task to weigh up the evidence.¹⁸⁵ They did not wish to ‘probe the

¹⁷⁹ *Consolidated Edison Co. v. NLRB* 305 US 197, 230 (1938).

¹⁸⁰ *Hope Natural Gas* at 602-3.

¹⁸¹ *Jersey City* at 513; *FPC v Natural Gas Pipeline Co.* 315 US 575, 586 (1942) (The *Natural Gas* case); and *St Joseph Stockyards v. US* 298 US 38, 52, 73 (1936) (The *St Joseph Stockyards* case).

¹⁸² *Nelson Brothers* at 277.

¹⁸³ *Swayne & Holt Ltd v. US* 300 US 297, 304 (1938).

¹⁸⁴ Chief Justice Hughes as quoted by Davison (1936) at 324.

¹⁸⁵ *Hope Natural Gas* at 603; *Florida v. US* 292 US 1, 11 (1934); *US v. Carolina Freight Carrier Corp.* 315 US 475, 482 (1942); *Jersey City* at 522; and *Klesner* at 29.

mental processes' of a decision maker.¹⁸⁶ The courts were always quick to note that there was no constitutionally mandated formula that bodies such as the Federal Power Commission or the Federal Trade Commission had to apply in setting rates or finding facts.¹⁸⁷ Even when a formula may have existed it may have not been appropriate because an agency may have needed to make 'pragmatic adjustments' in light of regulatory realities.¹⁸⁸ Justice Frankfurter noted in relation to a case involving the Secretary of Agriculture that:

But even such a retrospective determination does not present a mathematical problem. Doubts and difficulties incapable of exact resolution confront judgement. More than that, since the Secretary is the guardian of the public interest in regulating a business of public concern it is not for him to merely reflect the items on a profit and loss statement. He must consider whether those represent services which should be properly charged to the public.....he was not merely a bookkeeper posting items in a ledger.¹⁸⁹

In not casting the administrator in the role of 'bookkeeper' Justice Frankfurter and other judges were constantly emphasising the importance of ensuring that an administrative agency was able to exercise their discretion in a flexible and deliberative way. As such, Justice Frankfurter argued, in the same case:

It is not for us [the Court] to try and penetrate the precise course of the Secretary's reasoning. Our duty is at an end when we find, as we do find, that the Secretary was *responsibly conscious* of conditions at the market during the years following 1933, that he duly weighed them, and nevertheless concluded that rates similar to those in the 1933 order were proper.¹⁹⁰ [my emphasis]

This emphasis on responsibility of the agency was also part of the deliberative paradigm and Justice Frankfurter was casting the expert public administrator into

¹⁸⁶ *Morgan v. US* 304 US 1, 18 (1938)

¹⁸⁷ *Hope Natural Gas* at 602 (1944); *Natural Gas* at 586; and *Jersey City* at 513 (1944).

¹⁸⁸ *Natural Gas* at 586.

¹⁸⁹ *US v. Morgan* 313 US 409, 415 (1940).

¹⁹⁰ 420.

the role of steward. To this end other judges emphasised the importance of ‘fair play’ and the need for hearings in which the relevant private parties could properly comment. These requirements however, were not for trial process but rather for the candid ventilation of matters. General statements by administration would not be enough.¹⁹¹ The concept of ‘fair play’ was not about evidence and nor were hearings understood in the technical sense.¹⁹²

An example of the Court’s doctrinal approach during this era was the ‘zone of reasonableness’ test. The basic logic behind this test was that there was no single formulation for arriving at a ‘fair and reasonable’ rate.¹⁹³ Moreover, the court saw its task as policing the result reached rather than the method employed.¹⁹⁴ The test had been developed in the context of rate making and allowed an agency freedom to set a rate at any level within a range. That range was usually determined not by methodology but rather by concerns such as whether a rate would be too confiscatory.¹⁹⁵ The zone of reasonableness was thus concerned with a zone of reasonable agency action defined in a very broad way. It was based on an appreciation that there was no single methodology an agency should follow and that in carrying out its task the agency should be more concerned with a fair and just resolution than one which was methodologically accurate. Only where constitutional limitations had been overstepped, would the Court intervene.¹⁹⁶ The

¹⁹¹ *Morgan v. US* 304 US 1, 22 (1938).

¹⁹² *Ibid.* at 19 although compare with *Morgan v. US* 298 US 468 (1936) where the same Justice Hughes paints a far more rigid picture of hearings.

¹⁹³ *Hope Natural Gas* at 602.

¹⁹⁴ *Ibid.*

¹⁹⁵ *Natural Gas* at 585 and *St Joseph Stockyards* at 53.

¹⁹⁶ *Natural Gas* at 586.

‘zone of reasonableness’ test was in some ways a reformulation of the ‘constitutional fact’ doctrine. It was one, however that was not based on a rationalist premise that there was a distinction between fact and law. Rather the justification for court intervention was explicitly tied to democratic values. The test became popular, particularly in the field of rate making, and is still in existence today, albeit in a far more rationalist form.¹⁹⁷

4.2 The Cry of Rationalism

This is not to say that everyone during the New Deal was pro-administration and as Davis and Pierce have noted, the 1930s was an era in which there was major conflict between those who wanted positive government and those who shunned it.¹⁹⁸ Thus for example, the National Labour Relations Board became a ‘lightning rod for conservative scepticism about claims to administrative expertise’,¹⁹⁹ and there was a growing body of literature during this period in which a wide range of commentators expressed their concern about expert administrators. Beck argued that the immediate practical advantages of bureaucracy had ‘impaired and almost destroyed our form of government, except in name’.²⁰⁰ Likewise other commentators were concerned about how the rapid growth of administration had affected democracy.²⁰¹

The doctrinal manifestation of these concerns were the series of mid decade judgements concerned with whether wide Congressional grants of power were

¹⁹⁷ See Chapter Five.

¹⁹⁸ Davis & Pierce (1994) at §1.4.

¹⁹⁹ Hockett (1996) at 175. Also see Butler (1946) for an example of this attitude.

²⁰⁰ Beck (1932) at 240.

against the non-delegation doctrine.²⁰² The aim of the doctrine was to keep agency discretion within legal ‘canals’ so as to avoid ‘unconfined and vagrant power’.²⁰³ In doing so, greater judicial scrutiny of expert decision making was required. To do otherwise would be to allow unjustified agency infringement of individual liberty.²⁰⁴ The non delegation cases failed however to result in any change to government because the logic underlying them was not sustainable and the reality was that public administration was required to operate in a wide ranging and flexible manner.²⁰⁵ The cases attempted to delineate clearly the boundaries of administrative discretion and also to draw a hard edged distinction between fact and law. Even within the judgements there was a recognition of the problems of this approach. The proposals in *St Joseph Stockyards v. US*²⁰⁶ for evidentiary scrutiny were a watered down version of the constitutional fact doctrine. In shunning complete de novo review the court recognised that the process of administrative fact-finding could not be easily kept within a rigid framework.²⁰⁷ Moreover, as Freund noted, the problem in administrative fact finding was not so much of the truth or falseness of findings but with the inferences which could be drawn from any particular set of facts.²⁰⁸

²⁰¹ McGuire (1939).

²⁰² *Schechter* and *St Joseph Stockyards*.

²⁰³ *Schechter* at 537-8, 541.

²⁰⁴ *St Joseph Stockyards* at 52; *Schechter* at 537-8.

²⁰⁵ McCraw (1984) at Chapter Five and Gaus, White and Dimock (1936) at Chapter One; and Ackerman (1998) at Chapter 11.

²⁰⁶ 298 US 38, 53 (1936).

²⁰⁷ Note also Justice Brandeis' comments concerning the difference between agencies and juries. At 73.

²⁰⁸ Freund et al (1923) at 32.

The reactions against the New Deal were not simply a reaction against big bureaucracy. It was in actual fact a reaction against the deliberative paradigm. For many commentators, there was a need for precise rules and certainty so as to guide private action and in particular to be able to predict future action.²⁰⁹ New Deal style government did not seem to offer this and administration was construed as being pro-expert but anti-science. Roscoe Pound made this point in a 1946 pamphlet:

But as between this[adjudicative process] and disregard of the evidence and acting upon intuition and hunch, one sided investigation not subjected to cross examination, refutation or explanation and findings based on policy instead of evidence, there can be no question which our American legal constitutional polity deserves.²¹⁰

Pound's comments were based on the rationalist premise that only through uniform evidentiary procedure would a legitimate administrative decision be reached. This can be also seen in some decisions of the mid 1930s.²¹¹ The American Bar Association was also a keen advocate of tighter control. Administrative agencies for them were as insidious as the Star Chamber²¹² and a fertile ground for the exercise of whimsical and arbitrary power. For these groups, the flexible approach to scope of review under the substantial evidence test was unacceptable.

5. The Administrative Procedure Act 1946

The passing of the Administrative Procedure Act (APA) in 1946 represents a culmination of the stand off between the deliberative and rationalist paradigms.²¹³ Through its uneasy mix of codification and reform however, it put in place a

²⁰⁹ Hale (1930) at 498.

²¹⁰ Pound (1946) at 18-9.

²¹¹ *Morgan v. US* 298 US 468, 480 (1936) per Justice Hughes.

²¹² Gaus (1923-4) at 223.

²¹³ Cook (1996) at 121-2.

system which did little to resolve any of the outstanding issues. Thus although it has been described as the ‘Magna Carta’ of administrative procedure²¹⁴ and the major instrument for controlling public administration it left as many questions unanswered as it answered. Part of the reason for this was that the Act was the product of a long drawn out consultation procedure which began in early 1939 and finished with the passing of the Act in 1946. In between, there was the Walter-Logan Bill, FDR’s veto of that bill, the Attorney General’s Committee Report on Administrative Procedure and the minority report of that committee.²¹⁵ Thus the period between 1939-1946 was one in which the nature of the administrative state was heavily debated by two polarised extremes and the end product reflected this.

5.1 The Attorney General’s Committee Report

The most important document of this period was the Attorney General’s Committee Report on Administrative Procedure which was issued in 1941. The report is still an important source document and contained an in depth analysis of public administration and the law. The report recognised that the growth of administration had been ‘pragmatic’ and had been due to the need to have a flexible approach to preventative regulation.²¹⁶ Expert agencies were important because their ‘continuity of attention’ and expertise could allow for the more effective solving of problems.²¹⁷ In this respect, the Report was very much a validation of the concepts of deliberative expertise promoted in the New Deal.

²¹⁴ Scalia (1978) at 375.

²¹⁵ Rohr (1986) at 155.

²¹⁶ Attorney's General's Committee (1941) at 13.

²¹⁷ Ibid. at 19.

This is reflected in how the Attorney General's Committee approached the issue of administrative procedure.²¹⁸ As seen above, adjudication and its associated procedures had become a topic of debate. Yet other alternatives to adjudication were rarely considered.²¹⁹ The report highlighted the wide rulemaking powers available to an agency and in particular, powers of informal rulemaking. Informal rulemaking, or rulemaking *without a record* or trial-like hearing was advantageous because:

The full utilization of concentrated experience may be frustrated if administrative hearing procedure must be shaped to an inflexible pattern which has just evolved with an eye to the frailties of inexperienced jurors.²²⁰

That was not to say that hearings were not appropriate in informal rulemaking but that they served the purpose of being both fact finding forums and opportunities for discussion about relevant issues.²²¹ Moreover, the importance of public participation in agency rulemaking was stressed.²²² The Committee viewed formal methods of adjudication as problematic, particularly because such methods encouraged excessive analysis of the evidence, whether or not such evidence was relevant.²²³ However, it was also noted that formal procedures were superficially attractive where issues were so polarised that only a seemingly objective process would legitimise an agency decision.²²⁴ The Committee stressed the importance of

²¹⁸ Rohr (1986) at 154-170.

²¹⁹ Davis (1958) at §7.02.

²²⁰ Attorney General's Committee (1941) at 61.

²²¹ Ibid. at 19.

²²² Ibid. at 103.

²²³ Ibid. at 46.

²²⁴ Ibid. at 43.

agencies not being bound by procedure in the solving of problems. As such, this conclusion was consistent with much of the case law that had gone before.

The Committee also noted that the relationship between procedure and scope of review doctrine was a close one and they stated:

Dissatisfaction with the existing standards as to scope of judicial review derives largely from dissatisfaction with the fact finding procedures now employed by administrative agencies.²²⁵

The Committee argued that judicial review should check not supplant the administrative process.²²⁶ They argued that to engage in de novo judicial review of the facts would be contradictory to the reasons for having expert administration.²²⁷ The courts should not be concerned with ensuring that a decision was 'correct' but that it was the product of 'fair consideration'.²²⁸ The reason for this was that the Committee were acutely aware that the distinction between fact and law was impossible to make and that factual conclusions were a matter of judgement.²²⁹ They stressed the importance of a flexible and conscientious approach to scope of review depending on both the body being reviewed and the nature of the decision.²³⁰

5.2 The Legislation

The conclusions of the Committee are reflected in the rulemaking provisions of the APA and §553 sets out the procedures for informal or notice and

²²⁵ Ibid. at 92.

²²⁶ Ibid. at 77.

²²⁷ Ibid. at 91.

²²⁸ Ibid. at 78-9.

²²⁹ Ibid. at 79, 88-9.

²³⁰ Ibid. at 91.

comment rulemaking. This procedure required no administrative record but did require agencies to publish a proposed rule, receive comments on it, and after taking those comments into account publishing the final rule. The Act also provided for formal rulemaking and adjudication.²³¹

The APA represents the true dawning of public law with its full scale recognition of informal rulemaking. It can also be seen as a very deliberative approach to public administration with its bare bones framework. Yet at the same time, the logic behind the APA was decidedly rationalist in character and a manifestation of Pound's desires. As Horowitz has noted:

The APA is a prominent example of the dialectical relationship between expertise theory and proceduralism in 20th century American legal thought.²³²

Moreover, as Shapiro has highlighted the APA marks 'America's fatal ascension into bureaucratic complexity governing rulemaking'.²³³ Three main reasons can be seen for these criticisms.

First, before the Act, administrative law had as a discipline focused on specific regulatory areas. The study of judicial review had tended to be along the lines of subject matter rather than along the lines of over arching themes.²³⁴ Through both creating universal procedures and grounds of review the Act was presupposing that general principles of good governance could be found. Moreover, those general principles could be derived from procedure. The quality of

²³¹ §554 and §556, 557.

²³² Horowitz (1992) at 233.

²³³ Shapiro (1996) at 40.

²³⁴ Consider the chapter breakdown of Frankfurter & Davison (1931).

a decision could be assessed through its adherence to a set of rules. Such an assumption was decidedly rationalist in character.

Second, the APA created three categories for agency action - informal rulemaking, formal rulemaking and adjudication. Each of these had different procedures and distinct fact finding requirements.²³⁵ As is discussed below, both courts and agencies attempted to find principles to determine when these different procedures should apply. This however, proved complex and problematic.

Third, and more importantly the APA tied different scope of review doctrines to these different procedures. The Act ‘codified’ scope of review in §706.²³⁶ It stated:

To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of agency action. The reviewing court shall-

.....

(2) hold unlawful and set aside agency action, findings, and conclusions found to be-

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law;

.....

(E) unsupported by substantial evidence in a case subject to §556 and §557 of this title or otherwise reviewed on the record of an agency hearing provided by statute;

.....

In making the forgoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.

²³⁵ Two early cases were used to back up the distinction, *Londoner v. Denver* 210 US 373 (1908) and *BiMetallic State Board of Equalisation* 239 US 441 (1915) although note that these were rarely discussed until this period.

²³⁶ Compare even with the early case law. See *Nelson Brothers* at 277 and *Manufacturers* at 481.

The arbitrary and capricious test would apply to informal rulemaking while the substantial evidence test would apply to formal proceedings and adjudication. The arbitrary and capricious standard had not been heavily used at this point and the general judicial opinion was that as a test it was so closely interrelated with the substantial evidence test that a distinction between the two was not a meaningful one.²³⁷ As we shall see in Chapter Four, this framework and later legislative adjustments created a great deal of confusion.

The substantial evidence test now had a specific definition in the context of formal rulemaking and adjudication. This was even though, the courts in defining the concept of ‘substantial evidence’ relied on the pre-APA case of *Consolidated Edison Co. v. NLRB*.²³⁸ The ‘substantial evidence’ it referred to was evidence which could be found on an adjudicative record. Thus it was no longer a generalised and flexible method for the courts to engage in substantive review but rather a means of reviewing a *certain type* of factual basis of a decision.

6. 1950s and 1960s: Democracy and Distrust

The APA did not have an immediate impact and the post APA period was one in which the deliberative paradigm became more intensive and the 1950s represents its sophisticated highpoint. While Roosevelt had packed the Supreme Court with pro-New Dealers (including Felix Frankfurter)²³⁹ in the late 1930s this did not result in a completely deferential approach to judicial review. In a number of cases the court reviewed decision making more intensely but still perceived

²³⁷ *Nelson Brothers* at 277.

²³⁸ 305 US 197, 229 (1938).

expertise to be of a deliberative nature. An important building block in the deliberative approach were the *Chenery* cases which required agencies to articulate the reasons for their decisions.²⁴⁰ A court could only uphold an agency decision on the grounds on which the agency said it was based.²⁴¹ Such a requirement was consistent with ‘fair play’ and required decision makers to be candid. There was no requirement that these reasons should be only factual.

Moreover, courts required that administrators actively exercised their discretion. In *New York v. United States* (The *New York* case)²⁴² Justice Douglas giving the majority decision once again reiterated that a decision of the ICC was entitled to great weight, should not be bound to any particular formula and as long as it was found to be in a ‘zone of reasonableness’ would not be overturned.²⁴³

Justice Douglas was keen to note that the administrative process was

fluid and changing - the resultant of factors that must be valued as well as weighted. Congress has therefore delegated the enforcement of transportation policy to a permanent expert body and has charged it with the duty of being responsive to the dynamic character of transportation problems.²⁴⁴

Justice Douglas was not only stating that the ICC could exercise their discretion flexibly but also that they *should* exercise their discretion flexibly. It was a positive duty on the agency to deal with the problem in a proactive fashion.

²³⁹ Ackerman (1998) at Chapter 11.

²⁴⁰ *SEC v. Chenery* 318 US 80 (1943) and *SEC v. Chenery* 332 US 194 (1947).

²⁴¹ *SEC v. Chenery* 332 US 194, 196 (1947).

²⁴² 331 US 284 (1947).

²⁴³ 326, 328 and 331.

²⁴⁴ 335-6.

The combination of the need to give reasons and to show a positive exercise of a duty could be quite exacting. Justice Frankfurter in the *New York* case dissented, but his decision was still within the boundaries of the deliberative paradigm. He noted that the decision would have a wide impact but that the ICC had not clarified or articulated the economic and transportation circumstances giving rise to the decision. Moreover the report done by the ICC was open to a number of inferences and had not been clearly presented. Justice Frankfurter also noted that there was no easy way to conclude what was the actual nature of the decision being made.²⁴⁵

Moreover in *FCC v. RCA Communications*²⁴⁶ Justice Frankfurter (in the majority this time) held that a decision of the FCC should be struck down because the FCC in merely relying on their own interpretation of Congressional policy had been too rigid in their approach. This was reminiscent of some of the early ICC decisions concerning interpretation. The FCC needed to consider the particular circumstances of the case. Justice Frankfurter, discussing the nature of judicial review, stated:

Ours is not the duty of reviewing determinations of 'fact' in the narrow colloquial sense of that concept. Congress has charged the courts with the responsibility of saying whether the Commission has fairly exercised its discretion within the vaguish penumbrial bounds expressed by the standard of 'public interest'. It is our responsibility to say whether the Commission has been guided by the proper considerations in bringing the deposit of its experience, the disciplined feel of the expert to bear on applications for licenses in the public interest.²⁴⁷

²⁴⁵ 352-7.

²⁴⁶ 346 US 86 (1952).

²⁴⁷ 91.

Such a statement is very much within the deliberative paradigm and this decision can be viewed as a blueprint for how scope of review is carried out under that model.

This approach could also be seen in *Universal Camera Corp. v. NLRB*²⁴⁸ in which Justice Frankfurter fleshed out the nature of the substantial evidence test (see below). The decision, however, is perhaps more interesting for the way in which it commented on the nature of the judicial task. Justice Frankfurter reviewed the history and background of the inclusion of the substantial evidence test in the APA and concluded that by including the test the Congress were expressing a ‘mood’. The test could not operate as a set of rigid rules but only as a standard for judgement.²⁴⁹

The requirement that ‘the substantiality of evidence must take into account whatever in the record fairly detracts from its weight’ was not a ‘calculus of evidence’ by which reviewing courts could assess evidence and Justice Frankfurter was quick to note the importance of expert agencies in resolving disputes.²⁵⁰ Moreover, he stressed in strong terms the importance for any standard of review to be flexible and that, in any case, judgement needed to be exercised. He stated:

A formula for judicial review of administrative action may afford grounds for certitude but cannot assure certainty of application. Some scope for judicial discretion in applying the formula can be avoided only by falsifying the actual process of judging or by using the formula as an instrument of futile casuistry. It cannot be too often repeated that judges are not automata. The ultimate reliance for the fair operation of any

²⁴⁸ 340 US 474 (1951).

²⁴⁹ 487.

²⁵⁰ 488.

standard is a judiciary of high competence and character and the constant play of an informed professional critique upon its work.²⁵¹

There is no doubt that Justice Frankfurter was casting both the agency *and the* judiciary in a deliberative role.²⁵² The importance of flexibility can be seen in other cases and perceptions concerning deliberative expertise were in no way limited to Justice Frankfurter.²⁵³

6.1 The Evolution of Procedure and Rulemaking

In *Universal Camera* Justice Frankfurter also defined the ‘substantial evidence’ test of the APA to require an analysis of all evidence on the record including conflicting evidence. Thus this definition meant the substantial evidence test was relatively nonsensical outside a formal proceeding context because informal rulemaking had no record to speak of.

The rulemaking procedure/scope of review relationship proved to be problematic. The APA gave freedom to an agency to choose procedures. The issue was what were the implications of choosing formal rulemaking over adjudication or informal rulemaking over formal rulemaking. A rough framework was developed by agencies, courts and commentators. Adjudication would apply where specific private interests were affected while informal rulemaking would be appropriate in cases where the action of the agency was akin to legislation. Informal rulemaking was becoming a more and more appropriate model because of

²⁵¹ 488-9.

²⁵² See also *NLRB v. Seven Up Bottling Co. of Miami* 344 US 344 (1953); *Far East Conference v. USA* 342 US 570 (1952); and his dissent in *Swift & Co v. US* 343 US 373 (1952).

²⁵³ *New York v. US* 331 US 284, 328 (1947); *Ayrshire Collieries Corporation v. US* 335 US 573, 593 (1949); *Swift & Co v. US* 343 US 373, 381 (1952); *Fleming v. Florida Citrus Exchange* 358 US 153, 163 (1958).

the increased complexity of regulation. Yet courts and commentators started to find more consequence in the distinction. Davis proposed that ‘legislative’ and ‘adjudicative’ facts should be separated from each other. The former were facts which ‘informed legislation’ and the latter evidence in relation to the particular parties and immediate issues before the agency.²⁵⁴ Such a distinction was circular but popular with courts who were grappling to find frameworks for what was a legitimate exercise of agency action.²⁵⁵ In *US v. Florida East Coast Railway Company* the Court stated that:

While the line dividing them may not always be a bright one these decisions represent a recognized distinction in administrative law between proceedings for the purpose of promulgating policy-type rules or disputed facts in particular cases on the other.²⁵⁶

Courts held that informal rulemaking was directed at policy making while adjudication or formal rulemaking was concerned with deciding particular *facts* in relation to specific persons.²⁵⁷ Moreover, informal rulemaking was ideally suited to ‘predictive activities’. Judge Leventhal in *American Airlines Inc. v. Civil Aeronautics Board* noted that:

It is the kind of issue involving expert opinion and forecasts which cannot be decisively resolved by testimony. It is the kind of issue where a month of experience is worth a year of hearings.²⁵⁸

He also noted that informal procedures were flexible enough to allow for trial and error and the evolution of policy in the face of experience.²⁵⁹ Thus while it was for the agency to choose which procedures they wanted to adopt, some inferences

²⁵⁴ Davis (1958) at §15.03

²⁵⁵ *American Airlines Inc. v. Civil Aeronautics Board* 359 F.2d 624, 633 (D.C. Cir. 1966).

²⁵⁶ 410 US 224, 245 (1973).

²⁵⁷ *NLRB v. Wyman-Gordon* 394 US 759, 765 (1969).

²⁵⁸ 359 F.2d 624, 633 (D.C. Cir. 1966).

about the nature of their task could be drawn from their choice.²⁶⁰ Thus informal rulemaking was perceived as an appropriate vehicle for polycentric and expert decision making in the public interest.²⁶¹

It may be for this reason that it was chosen as the main means of rulemaking in risk regulation. At the same time, however, the abandonment of adjudication for informal rulemaking was also part of a general realisation that government by individual adjudication was simply no longer viable.²⁶² Formal rulemaking was rarely used and viewed as unworkable.²⁶³ These debates about rulemaking procedure were very influential on the role of the courts in risk regulation in the 1970s. This will be discussed in Chapter Four.

6.2 1960s: The Shift Towards the Rationalist Paradigm

By the 1960s, the role of public administration was still uncertain, despite the classificatory attempts of the APA. Much of this was due to the dramatic political and scientific changes that had taken place. The role of the administrative state was being scrutinised by both sides of the political debate.

World War II and the advent of the nuclear age brought new developments in science and technology and thus a new faith in scientific methodology for solving problems.²⁶⁴ At the same time, it also saw an upheaval in public

²⁵⁹ 633. Also see *US v. Storer Broadcasting* 351 US 192, 204 (1956);

²⁶⁰ Ibid.

²⁶¹ Reich (1966) at 1242.

²⁶² *Vermont Yankee Nuclear Power Corp. v. NRDC* 435 US 519 (1978).

²⁶³ Pederson (1975) at 44.

²⁶⁴ Yellin (1983).

administration and the war brought with it an influx of numerous new employees and an ad hoc growth in administration, particularly the military bureaucracy.²⁶⁵ Moreover, there was a growing distrust in the personal aspects of public administration. A number of reports from the mid 1950s onwards highlighted problems of inefficiency, poorly trained personnel, and agency inertia. A number of revisionist histories argued that New Deal concepts of expertise merely shrouded agency capture and a maintenance of the status quo.²⁶⁶

By the 1960s a definite sea change was occurring in both the academic and judicial approach to agencies. The 1960 Landis *Report on Regulatory Agencies to the President-Elect* called the human aspects of bureaucracy into question. The report was primarily concerned with the problems of unethical conduct and institutional inertia and it focused in on the problems of delay and the deterioration in the quality of personnel. Likewise Judge Friendly in 1962 characterised the area of federal regulation as a ‘Serbonian bog’.²⁶⁷ Administrators, he said:

did not combine the celerity of Mercury, the wisdom of Minerva, and the purity of Diana.²⁶⁸

Kenneth Culp Davis wrote in 1965 what was described as a landmark in the legal study of discretion: *Discretionary Justice: A Preliminary Inquiry* in which he argued that unchecked and uncontrolled discretion was not desirable and that there was a greater need for clear rules.

²⁶⁵ Crenson & Rourke (1987) at 138-150 and Trytten (1945) at 48-52.

²⁶⁶ Bernstein (1955); Bernstein (1970); Mollenhoff (1965); and Kolko (1963).

²⁶⁷ Friendly (1962) at 2.

²⁶⁸ Ibid. at vii.

Similar trends can also be evidenced in relation to judicial review. The 1955 Task Force *Report on Legal Services and Procedure* to the Commission on the Organisation of the Executive Branch of the Government argued that the phase of regulatory ‘experimentation and development’ had passed and that the judiciary should be more intrusive in carrying out judicial review.²⁶⁹ In particular, they argued that the relationship between agencies and the courts should be the same as between appellate and district courts.²⁷⁰ This was because the ‘mental processes’ of both the court and the agency should be the same (particularly if the agency was engaging in adjudication) and judicial review of the facts de novo should be possible.²⁷¹ The Taskforce Report clearly envisaged a rationalist form of expertise where superior expert discretion was that which adhered to a chosen methodology very closely. Moreover the approach required a greater identification of fact, law and policy in agency decision making.²⁷² An expert was no longer the wise figure who exercised his discretion in a flexible manner and with integrity but rather an analyst who rigidly applied a theory to a given set of facts.

That report was a minority one and Kenneth Culp Davis criticised it heavily in his 1958 treatise²⁷³ but the notion that administration was really just an expert fact finder was becoming more popular. Moreover, claims to expertise were viewed

²⁶⁹ Task Force on Legal Services and Procedure (1955) at 205-214.

²⁷⁰ Ibid. at 217.

²⁷¹ Ibid. at 216.

²⁷² Task Force on Legal Services and Procedure (1955) at 214.

²⁷³ Davis (1958) at §1.4.

with distrust. For example, Justice Stewart in *American Ship Building Co v. NLRB*²⁷⁴ stated:

The deference owed to an expert tribunal cannot be allowed to slip into judicial inertia which results in the unauthorized assumption by the agency of major policy decisions properly made by Congress.

Such sentiments could be found in many cases.²⁷⁵ There was now a growing fear that administration would make unwarranted policy decisions. Such a fear rested on an assumption that the administration did have a clearly defined constitutional role as a fact finder.²⁷⁶ Thus the courts were starting to be far more concerned with the methodology of reasoning,²⁷⁷ the way in which numbers had been calculated, and that there was a rational link ‘between the facts found and the choices made’.²⁷⁸ A decision was likely to be scrutinised in even more detail if it was a departure from past practices.²⁷⁹ Where there had been once an appreciation of trial and error there was now a perceived need to create uniform administration.²⁸⁰ Likewise, judicial review was generally encouraged.²⁸¹

²⁷⁴ 380 US 300, 318 (1965).

²⁷⁵ *Zuber v. Allen* 396 US 168, 181 (1969); *FTC v. Mary Carter Paint Co.* 382 US 46, 52 (1965); *Atlantic Refining Co v. FTC* 381 US 357, 381 (1965); and *Burlington* at 167.

²⁷⁶ *FTC v. Motion Picture Advertising Co.* 344 US 392, 401 (1953); *FTC v. Mary Carter Paint Co.* 382 US 46, 52 (1965); *Consolo v. Federal Maritime Commission* 383 US 607, 620 (1966); *FTC v. Dean Foods* 384 US 597, 618 (1966); *US v. Western Pacific Railroad Co.* 352 US 59, 64 (1956); and *Communist Party of US v. Subversive Activities Control Board* 367 US 1, 40 (1961).

²⁷⁷ *Burlington* at 168.

²⁷⁸ *American Ship Building Co. v. NLRB* 380 US 300, 326 (1965); *Bowman Transportation v. Arkansas Best Freight System* 419 US 281, 285 (1974); and *Burlington* at 168.

²⁷⁹ *FTC v. Mary Carter Paint Co.* 382 US 46, 53 (1965).

²⁸⁰ For cases concerning the importance of uniformity see *Consolo v. Federal Maritime Commission* 383 US 607, 620 (1966) and *ICC v. Atlantic Coastline Railway Co.* 383 US 576, 592. (1966).

²⁸¹ *Abbott Laboratories v. Gardner* 387 US 136, 141 (1967) arguing that the APA should be given a ‘hospitable interpretation’ and thus it supported pre-enforcement review.

Things became even more complicated with the advent of risk regulation in the early 1970s. While there was a demand to constrain the power of administrative agencies, new legislation also granted wide ranging power to experimental agencies. During this time, there was clearly confusion over what was to be the role of the administrative state. Risk regulation thus came into being during an era of change and flux.

7. Conclusion

What is clear from the above analysis is that divergent understandings of expertise have resulted in quite different approaches to judicial review. On the one hand, the deliberative paradigm which had predominated in the early half of the century, required that an agency had made a sensible and conscientious exercise of judgement. There was no expectation that in doing so the agency would use a universal formula or procedure. Moreover the fact/law distinction was seen as being a counterproductive basis on which to ground scope of review doctrine. The courts thus saw their task as being one concerned with ensuring that the agency had thought about the issues. The justification was that regulatory problem solving was of a transdisciplinary nature.

By 1970 however, judicial review was drifting towards the rationalist paradigm.²⁸² Under this paradigm the logic that the authority of the agency arose

²⁸² There was still a strong deliberative stance in relation to many areas of Federal regulation in some cases these remnants remain. Judicial review under the Magnuson Fishery and Conservation Act 1976 is an obvious example. *Fisherman's Dock Co-operative Incorporated v. Brown* 75 F.3d 164, 172 (4th Cir. 1996). Judicial review of the Federal Communications Commission is another example. *FCC v. WNCN Listeners Guild* 450 US 582, 601 (1981) but note the recent change in *Metro Broadcasting Inc. v. FCC* 497 US 547, 569 (1990).

from their expertise and thus that the court's task was to ensure that an agency kept within *disciplinary* boundaries. In doing this, the courts relied heavily on the fact/law distinction. Throughout the 1970s and 1980s this paradigm remained on the ascendant and with the Supreme Court decisions of *International Union Department, AFL-CIO v. American Petroleum Institute*²⁸³ and *Motor Vehicles Manufacturers Association v. State Farm Mutual Automobile Insurance Company*²⁸⁴ became clearly dominant.

It is important to keep two issues in mind. The first is that the rationalist and deliberative paradigms are loose constructs directed at the question of how courts should carry out their task. As such, they are less 'settled institutional fact than.. a semantic field for normative debate'.²⁸⁵ The aim of the analysis above was to show that the courts have carried out judicial review in different ways and these approaches have been grounded in paradigms of expertise. Moreover, through a historical perspective one can gain an appreciation of how concepts of expertise and the role of the courts are influenced by wider political debates. The second point to highlight is that in judicial review the aim is not to rebuild and refine bureaucracy but rather to hold it to account. The imposition of one paradigm *does not necessarily* exclude all other forms of bureaucratic action. The deliberative paradigm does not exclude scientific analysis and the rationalist paradigm does not exclude bias and arbitrariness. In thinking about which paradigm should be the basis for judicial review this should be kept in mind.

²⁸³ 448 US 607 (1980).

²⁸⁴ 463 US 29 (1986).

²⁸⁵ Michelman (1986) at 17 discussing civic republicanism.

There is no doubt that the courts and in particular the Supreme Court, have long wrestled with the problem of generalist review of expert decision making. While some may argue that areas of regulation are not easily comparable it cannot be doubted that the concepts of expertise and scientific uncertainty are not new to the courts. Moreover, in solving the conundrum of judicial review of rulemaking under uncertainty in relation to risk regulation it is clear that attention must be paid to the past. As shall be shown in Chapter Four many of the debates discussed above were highly influential to how the courts carried out judicial review in the 1970s.

Chapter Three

Risk, Expertise and Accountability: The Evolution of Risk Regulation in the United States

In the early 1970s the question of what should be the role and nature of expert administration was made even more perplexing by a dramatic metamorphosis in American public administration. A number of expert administrative agencies were created and entrusted with the task of regulating industrial activity so as to prevent risks to human health and the environment. Risk regulation, as it has become known, has been a controversial area of public law made more complicated by a chronic lack of scientific knowledge and intense political controversy surrounding both these risks and public administration. Moreover, with the growing distrust in government and a concurrent increase in accountability mechanisms, those holding these new agencies to account have had an influential role in shaping the nature of risk regulation.

Pivotal to risk regulation is expert public administration,¹ and as seen in the last chapter, this phrase connotes two divergent models – the deliberative and the rationalist. Yet expertise was defined imprecisely in the setting up of this regulatory framework. The last three decades have been an uneasy period of experimentation in which all three arms of government have participated in an attempt to found risk regulation on a legitimate and workable basis. In doing so the

¹ Rivlin (1994) at 28 and Hattis & Goble (1994) at 109.

axis of debate has been what should be the nature of expertise. Accountability mechanisms and in particular, judicial review have had a fundamental impact on this issue and thus been a powerful force in directing the nature and scope of risk regulation.

The case law will be discussed in more detail in the next two chapters. This chapter is concerned with exploring the evolution of risk regulation in a broader socio-political context and highlighting the important role accountability mechanisms have played in that evolution. The structure of this chapter is as follows. First, risk regulation is defined and a brief overview is given. The focus for analysis is upon the centre piece of risk regulation - standard setting. Second, the rationalist and deliberative paradigms of risk regulation are described in some detail. Through defining expertise differently each paradigm assigns risk regulators quite divergent roles. While the deliberative paradigm is a far more appropriate model for tackling the perplexing conundrum of technological risk, accountability mechanisms have promoted reform in a rationalist direction. Third, the evolution of risk regulation in the United States is analysed. Throughout the 1980s the rationalist paradigm was promoted and this has resulted in problems of ossification and regulatory failure.

1. Risk Regulation and Expert Public Administration

Risk regulation is concerned with regulating the health and environmental risks which arise from industrial activity. These risks can range from acute risks such as accidents to long term risks such as cancer. The focus is upon the latter as they dramatically highlight the problems of expertise and uncertainty in the

administrative state. It is a dynamic area of the law and is in a constant state of flux. This can make discussion complicated, particularly as major legislative provisions can be substantially overhauled. The law discussed is that current at 1 April 1998 unless otherwise stated.

Risk regulation is primarily preventative regulation and requires the regulation of future conduct so as to reduce or prevent risk.² It has two important features. First, the primary means of regulation is standard setting. Standards are prescriptive norms which govern action and will set a base line for acceptable future behaviour. These standards will usually apply to the industries which produce risk. Standards come in several forms.³ They can regulate a variety of subject matter including but not limited to technology⁴, health⁵, performance, or the amount of a substance in the ambient atmosphere.⁶ They can require the taking into account of many different factors including health, economics, social issues and technological feasibility. They can be uniform or differentiated; numerical or a description of acceptable behaviour. The appropriateness of these different regulatory strategies is not of concern here. The focus is upon what is a reasonable and legal exercise of agency discretion in the setting of these standards.

Second, in setting standards, prediction is required. This is in relation to both assessing what the adverse health effects of a substance may be and what

² The problem with common law remedies in this area was that they were post hoc. Silver (1986) and Sunstein (1993) at Chapter Eleven.

³ Percival et al (1996) at 146-158 for a discussion of their application in risk regulation. Also see Black (1995) for a more general discussion.

⁴ 1990 Clean Air Act amendments which substantially rewrote 42 USCA §7412.

⁵ Occupational Safety and Health Act 1970 15 USCA §652(8).

⁶ Clean Air Act 42 USCA §7409.

measures will successfully avoid these effects. Prediction requires the utilisation of many different forms of expertise and these need to be assimilated so as to arrive at a solution.⁷ Even though prediction, in some cases, can be based on the observance of past effects, it will still be 'prediction' and thus imperfect. Moreover, in cases such as assessing the risks of cancer there is a large deficiency of information. Uncertainty is thus an inevitability.

A central concern of risk regulation is the appropriate role to be played by public administration. As Senator Saxbe noted in debating occupational safety and health legislation in 1970:

We come down to a point of great moment and an issue we are finally going to have to decide: Who determines just what is a hazard and how to protect from it? This seems to me to go to the very depth of our individual and collective concern in government and its place in lives of people and the States in which they live.⁸

As we shall see the last three decades have been a period in which there has been a search for an appropriate basis for risk regulation. With the increase in distrust of public administration in the 1960s there was a growth in the number of accountability mechanisms and the courts engaged in more intensive review.⁹ The judiciary thus became an important voice in the debate about the ideal nature of risk regulation administration.¹⁰ Assumptions about the role of expert administration underlying judicial decisions influenced policy, decision making structures, and the nature of analytical tools used by the agencies.¹¹

⁷ Belzer (1994) at 171.

⁸ 116 Congressional Record 36523 (October 13 1970).

⁹ *Greater Boston Television Corp. v. FCC* 444 F.2d 841 (D.C. Cir. 1970).

¹⁰ Carnegie Commission (1993) at 73.

¹¹ NRC (1994) at 29-40.

There was however, no uniform understanding of the role of public administration. The National Research Council (NRC) of the National Academy of Sciences has published a number of influential reports on risk regulation which are excellent examples of how the underlying logic of regulation has changed.¹² The key pivotal point in risk regulation was and is the nature of administrative expertise. On the one hand, there was those who argued that administration must take on a deliberative role, while on the other there were those who argued it needed to be more rationalist in nature. Before discussing the history of risk regulation it is useful to sketch these two risk regulation paradigms in detail.

2. The Rationalist Paradigm of Risk Regulation

The rationalist paradigm of risk regulation defines expert public administration as a Weberian style bureaucracy which is competent to rationally assess and reduce risk. Administration is a highly efficient and centralised information management system which can effectively co-ordinate action on behalf of the whole population.¹³ Unlike courts or Congress, rationalist expert administration will make decisions primarily on the basis of scientific analysis and it is this which justifies the label of expertise. They will not be swayed by political arguments, public hysteria or private interests.¹⁴ They will only act in cases where an actual risk exists and where they can show that such a risk will be reduced by regulatory action.

¹² NRC (1983); NRC (1994); and NRC (1996).

¹³ Stewart (1985) at 23.

¹⁴ 116 Congressional Record 36530 (13 October, 1970) for a discussion of this.

Risk, on this model is a mathematical or technical problem. It is the product of poor engineering, market failure¹⁵ or inadequate planning. It can be defined as the combination of the probability of an adverse event and its consequences.¹⁶ As such, it can be measured and the success and failure or preventative action can also be gauged.

2.1 Risk Assessment

The scientific assessment of risk is the principal task of rationalist administration. Risk assessment, was originally derived from civil and mechanical engineering but now refers to a variety of tools in a diverse number of fields including ecology, engineering and management.¹⁷ The regulation of human carcinogens requires the use of human health risk assessment. This is commonly defined as:

the evaluation of scientific information on the hazardous properties of environmental agents and on the extent of human exposure to those agents. The product of the evaluation is a statement regarding the probability that populations so exposed will be harmed, and to what degree.¹⁸

Health risk assessment is a relatively new technique which has been developed in response to both legislation and case law. As a methodology for assessing health risks it was only solidified in the early 1980s with the NRC Report *Risk Assessment*

¹⁵ Williams & Matheny (1995) at 17.

¹⁶ Presidential/Congressional Commission on Risk Assessment and Risk Management (1997) at 2.

¹⁷ For a history see Covello and Mumpower (1985).

¹⁸ NRC (1994) at 25-6.

*in the Federal Government: Managing the Process*¹⁹ also known as the 'Red Book'.

That report defined risk assessment in terms of four analytical steps.²⁰ The first step is hazard identification, in which any adverse health effects caused by exposure to a particular substance are assessed. The second step is dose-response assessment in which there is an attempt to establish what is the actual dose of a substance which will give rise to those adverse health effects. The third step is exposure assessment in which the conditions under which people may be exposed to these substances are analysed and the dose (and thus the health effects) which may result from this exposure is established. The final step is risk characterisation, in which the data from the previous three steps is combined to estimate the likelihood of certain risks. The result is usually represented in a quantitative form.

Prediction under this paradigm is based as far as possible on past scientific evidence and risk assessment is not primarily concerned with scientific research but rather with the collection and analysis of relevant data.²¹ There are two primary sources of information - epidemiology and animal studies. Both are imperfect and this is one of the inherent limitations of risk assessment.²²

¹⁹ NRC (1983).

²⁰ NRC (1983) at 20-33. For latter discussions see NRC (1994) at 26-7; and Presidential/Congressional Commission on Risk Assessment and Risk Management (1997) at 4.

²¹ NRC (1994) at 27.

²² For general discussions on the problems of both see Rodricks (1992) at 120-144 and NRC (1994) at 395-6. For a dated but detailed analysis see OSHA's generic cancer policy: 'Identification, Classification and Regulation of Potential Occupational Carcinogens' 45 Fed. Reg. 5002.

There is under the rationalist paradigm recognition that risk assessment is being carried out against a background of scientific uncertainty and this will affect the accuracy of any assessment.²³ There are a number of strategies to solving this problem which have been developed over time. These attempt to ensure that assessment still adheres to the rationalist paradigm as far as possible.²⁴ One such strategy is the use of 'default options'. These are generic assumptions based on both science and policy which can be used at stages of the risk assessment process when data is not available.²⁵ One example of a default option is the means by which the high doses given to animals are extrapolated to low dose exposure to humans. The aim has been to develop a set of default options and a detailed set of guidelines to ensure that any value judgements will be uniformly and explicitly applied.²⁶ Thus where scientific knowledge does not exist there is an attempt to ensure decision making is still as rationalist as possible.

Another strategy for managing uncertainty is a formal uncertainty analysis which will explicitly state the limits of scientific data in any risk assessment.²⁷ As well, the outcome of a risk assessment can be expressed as a range of numbers rather than a precise one, so as to represent the uncertainties and scientific disagreements involved.²⁸ Overall the management of uncertainty is designed to ensure that an administrative agency exercises their discretion in an analytically

²³ NRC (1983) at 6,11.

²⁴ NRC (1994) at Chapter Nine.

²⁵ Ibid. at 28.

²⁶ Ibid. at 28.

²⁷ NRC (1994) at 184.

²⁸ NRC (1994) at 179-181 and Johnson & Slovic (1995).

rigorous manner and that gaps in knowledge do not provide an opportunity for the illicit exercise of discretion based on factors other than science.

2.2 Risk Management

The second task of a rationalist expert administrative agency is to engage in risk management. It is at this stage where policy can be taken into account but as with all rationalist models only in limited and explicit ways. The Red Book defines risk management as ‘the process of evaluating alternative regulatory actions and selecting among them’.²⁹ As such it:

entails consideration of political, social, economic and engineering information with risk related information to develop, analyze and compare regulatory options and to select the appropriate regulatory response to a potential chronic health hazard. The selection process necessarily requires the use of value judgements on such issues as the acceptability of risk and the reasonableness of the costs of control.³⁰

The major limitation on policy discretion is the legislative mandate and the task of the rationalist administrator is to find the most economical and technologically feasible option.

Moreover, as with assessment, there is a desire to ensure that agency discretion cannot be abused. In a draft memorandum, Henry Habicht, a Deputy Administrator of the EPA has argued that decision makers should expect the ‘same level of rigour from the economic analysis as they receive from risk analysis’.³¹ To this end a number of decision making methodologies have been developed. Many of these are variants of comprehensive rationality and the most prominent is

²⁹ NRC (1983) at 18.

³⁰ NRC (1983) at 19.

³¹ NRC (1994) at 360.

cost/benefit analysis. The role of these tools is to ensure that the agency is taking the most efficient and effective option.³² As Stewart argues an important function of risk management is to ‘determine the magnitude of the resources needed to produce a given reduction in risk’.³³

Participation and community consultation do have two roles to play under the rationalist paradigm. The first is limited to the public giving information to the agency so as to ensure that public administration can make more informed and thus more rational decisions. Participants are not required to be experts but the information must assist in making the task of the agency more analytically rigorous. The second role of consultation is informing or educating the public about the scientific aspects of risk. The purpose of this is to make public decision making more ‘rational’ and to avoid problems of panic and hysteria. Both these types of ‘consultation’ are forms of one way communication and are not deliberative.

2.3 The Rationalist Paradigm: Managing Knowledge

The authority of expert public administration under the rationalist paradigm rests solely on the grounds of science and legislation. As Breyer has argued:

[T]he authority or legitimacy of a particular regulatory action depends in part upon its technical sophistication and correctness, and in part upon its conformity with the law, and both parts help to determine the extent of public confidence in the regulator.³⁴

The second of these grounds is limited. *Prima facie* it is science and scientific methodology which defines the expertise of the rationalist administrator.

³² Wiener (1998).

³³ Stewart (1985) at 22.

Under the rationalist paradigm, the distinction between risk assessment and risk management is a significant one. It ensures that the scientific aspects of decision making are kept separate and thus its 'purity' guaranteed. As Lynn Goldman, an Assistant Administrator at the EPA notes:

[The distinction assures] decision makers and the public that analysis and judgement of the nature and size of the risk is governed by scientific principles and policies, and not prejudiced towards particular economic or social outcomes associated with regulatory decisions.³⁵

The distinction makes explicit the pivotal role of science in defining the task of the regulator. Consistency is promoted and the basis of a decision can be easily scrutinised.³⁶

Better risk regulation decision making can also be achieved by making sure risk assessment is more meticulous and done in accordance with uniform guidelines.³⁷ The EPA argues that the latter serve two purposes:

(1) to guide EPA scientists in conducting Agency risk assessments and (2) to inform EPA decision makers and the public about these procedures.³⁸

This highlights one of the reasons why the rationalist paradigm has been attractive to those who have sought to hold expert public administration to account. By defining the task of the expert administrator in terms of science, the accountability of administration can be ensured through policing the methodology of their decision making. Moreover, if risk is a scientific concept it would seem logical to measure and manage it through science.

³⁴ Breyer (1993) at 63.

³⁵ Evidence to the Committee on Government Operations (1994) at 182.

³⁶ NRC (1983) at 9.

³⁷ Ibid. at 7.

³⁸ NRC (1994) at 306.

As a model for risk regulation, however, it has two serious drawbacks. First, it is based on a misconception of what the problem of technological risk is. Second, it overestimates the predictive abilities of analytical tools and is a flawed model of accountability because as the benefits of any action are long term the efficacy of any regulation action cannot be properly assessed. Moreover, the political justification for risk regulation is not simply risk reduction. In contrast, the starting point for the deliberative paradigm of risk regulation is not methodology but rather the complexity of problems which arise from regulating technological risk

3. The Deliberative Paradigm of Risk Regulation

The expertise of the deliberative risk regulator is defined in terms of their ability to 'solve' the conundrums of technological risk. These problems are intricate, polycentric, shrouded in scientific uncertainty and are embedded in broader social and political controversies. A deliberative expert must find creative, context-specific solutions. In doing so, scientific analysis, deliberation and trial and error will all have roles to play. Deliberation is not alien to the scientific process and many have argued it is crucial to scientific progress.³⁹

The problems which give rise to risk regulation are not merely about the need to reduce a certain health risk to a population. Questions about risk, risk reduction and risk regulation cannot be solely scientific questions. Rather, they are questions about how do governments make collective decisions about managing

³⁹ Shapin (1994) who also argues that trust has a very important role to play. Also see Kuhn (1970).

the adverse and uncertain consequences of future conduct in an interdependent, industrial and democratic society.⁴⁰ As such, risk regulation raises similar issues to those raised by regulation in the early 20th century. There are two major features of risk problems which require that they be regulated by a deliberative expert administration. First, while still an important source of evidence, science cannot be the only basis on which to make decisions. Secondly, technological risk raises larger questions about what is acceptable to impose onto others in a democratic society.

3.1 The Limits of Scientific Methodology

Prima facie, technological risk represents the failure of science to predict adverse consequences. Accidents such as Three Mile Island, Bhopal and Chernobyl were not foreseen by those designing the technology.⁴¹ Likewise many substances which have been labelled safe have been later discovered to have serious risks attached.⁴² For many commentators and theorists, the ‘invisibility’ of these risks raises serious questions about the legitimacy and benefits of scientific and technological progress.⁴³

⁴⁰ For literature discussing this perspective see Krimsky and Golding (1992); Clarke & Short (1993); Schwarz & Thompson (1990); Royal Society (1992) at Chapter Six; Lash et al (1996); and Leiss & Choicolko (1992).

⁴¹ Perrow (1984).

⁴² Freudenburg (1992) at 14; Leiss & Choicolko (1992); and Rodricks (1992) at Chapter Six.

⁴³ Beck (1992) at 21 and 54 and Giddens (1990) and Alford (1985). These theorists have their antecedents in the Frankfurt School. See Arato & Gebhardt (1992) and Habermas (1987).

Furthermore, science is limited as a tool in predicting and understanding technological risk. Scientific uncertainty cannot be as easily identified and managed as the rationalist paradigm suggests. It is a constant feature of science and can take many forms. The ‘gap’ in knowledge about the effects of chemicals is a large one. The NRC noted in 1983 that out of 5 million chemicals which are known to exist about 70,000 are in commercial use but only 5,000 have been tested for carcinogenicity. Of these 1,500 have been found to be carcinogenic in animals and 30 definitely linked to cancer in humans.⁴⁴

The types of scientific uncertainty encountered in risk assessment are not only limited to uncertainty arising out of a lack of research but also from other factors.⁴⁵ First, there are inherent uncertainties with collection of data and the carrying out of experiments.⁴⁶ Second, much of risk assessment relies on modelling tools and it is difficult to assess whether a model is a constructive simplification or a misunderstanding of the reality it is attempting to represent.⁴⁷ Third, risk assessment data is derived from scientific research in a wide array of disciplines and a decision must be made concerning which methodology should be primarily relied upon. Different disciplines will often have divergent methodologies and come to quite incommensurable results. This type of uncertainty can often only be

⁴⁴ NRC (1983) at 11-12 and Adams (1995) at 45.

⁴⁵ For a discussion of different types of uncertainty see Wynne (1992); Walker (1998); Smithson (1993) Funtowicz & Ravetz (1990); Morgan & Henrion (1991); and O’Riordan & Rayner (1991). An excellent analysis of uncertainty and engineering risk assessment is Shrader-Frechette (1993).

⁴⁶ Carpenter (1995) at 194 and NRC (1994) at 163.

⁴⁷ NRC (1994) at 165.

resolved by making a value judgement about what is the most institutionally favoured method. In the United States, that has been animal studies.⁴⁸

Fourth, there are also epistemological uncertainties and these are the types of uncertainties which arise because 'we don't know what we don't know'. In relation to carcinogens there is a heated debate between those who argue that there is no safe level of a cancer causing substance and those who propose that there is a threshold level under which exposure to the chemical will cause no harm.⁴⁹ Each approach rests on different theories and clearly each will have implications for how a substance is regulated.⁵⁰ Moreover, there is disagreement over what is the primary cause of cancer. The famous epidemiological study of Doll & Peto suggested that very few cancers are caused by environmental exposures to chemicals and yet experts from other fields strongly disagree.⁵¹ Moreover, there is no simple method of testing theories because of long time lags and the ethical problems of human experimentation.

Fifth, in carrying out exposure assessment there is a problem of indeterminacy. Risk assessment was originally developed in engineering for systems which were closed.⁵² In contrast, in health risk assessment the subject of analysis is an open ended system in which the vagaries of both the natural environment and human behaviour must be taken into account. Finally in relation

⁴⁸ Ibid. at 58-60.

⁴⁹ Ibid. at 16-17.

⁵⁰ See Feller (1994) for a discussion of the regulatory implications of presuming that there is a threshold level for air pollutants.

⁵¹ Gough (1990) at 1.

⁵² Wynne (1992) at 113.

to risk characterisation all these different forms of uncertainty will be compounded and that in itself creates more uncertainty.⁵³

The probabilities which result from a risk assessment, will in many cases, *not* be an accurate depiction of reality. Yet at the same time, the outcome is usually expressed as a single number and this has been heavily criticised for giving a mirage of certainty when none in actual fact exists.⁵⁴ Moreover, the use of science in public administration is context driven. Writers such as Funtowicz and Ravetz distinguish it from normal science by describing it as a ‘post normal’.⁵⁵ They argue that post normal science is science in which: ‘facts are uncertain, values are in dispute, stakes high, and decisions urgent’.⁵⁶ As such, it must by necessity incorporate value judgements.⁵⁷ This reliance on factors other than science is unavoidable in cases such as these where science is limited and some form of prediction in the public interest must be engaged in.⁵⁸ If technological risks are to be solved by experts, their expertise cannot be in the application of science alone.

⁵³ NRC (1994) at 164.

⁵⁴ Ibid. at 161. For an assessment of this problem in other public administration contexts see Porter (1995) and Power (1997).

⁵⁵ Funtowicz & Ravetz (1990).

⁵⁶ Funtowicz & Ravetz (1992) at 253-4.

⁵⁷ For views of those work in the area see Belzer et al (1995); Dale (1994); Ruckelshaus (1990); Shrader-Frechette (1993); Shrader-Frechette & McCoy (1993); and Finkel (1995).

⁵⁸ For discussions of this see Jasanoff (1990) and Ashby (1977); Tribe (1973) and Brown (1992)

3.2 Polycentricity and Complexity: The Socio-Political Context of Technological Risk

Moreover, technological risk emphasises the interdependent, polycentric nature of industrial society.⁵⁹ Risk, as Rayner & Cantor note is:

a way of classifying a whole series of complex interactions and relationships between people as well as between man and nature.⁶⁰

Technological risks are not caused by nature but rather are imposed on a person by another person or institution and they highlight the 'social vulnerability' of individuals to others⁶¹ Likewise, the distribution of risk across a society is not uniform. Those who create a risk may not be those that are exposed to it. A liberal approach to risk management which allows each individual to make their own decisions about risk is not viable. Risk distribution raises questions about what is fair and just to impose onto another. Different theories such as utilitarianism or rights-based approaches will yield divergent answers to these questions.⁶²

In risk regulation decisions about risk need to be made on behalf of the collective population and for some commentators this has meant that risk and disputes over it are de facto debates about the nature of governance in society.⁶³

Freudenburg & Pastor have noted:

Questions of power, social control and the trustworthiness of specialized experts are embedded in decisions about technological risks....⁶⁴

⁵⁹ Freudenburg (1993).

⁶⁰ Rayner & Cantor (1987) at 39.

⁶¹ Freudenburg (1993) at 915.

⁶² Schroeder (1986); Shrader-Frechette (1991); Cranor (1993); and Rayner & Cantor (1987).

⁶³ Beck (1992); Douglas & Wildasky (1982); and Douglas (1992); Irwin (1995); Hornstein (1994); and Fiorino (1990).

⁶⁴ Freudenburg & Pastor (1992) at 391.



What is an acceptable risk to an individual is not an 'objective concept' but rather determined by their relationship to the decision making process creating the risk.⁶⁵ A risk is far more likely to be acceptable if it is voluntary⁶⁶; if those exposed to it feel in control of their environment⁶⁷; or if they trust the institution imposing the risk on them.⁶⁸

Furthermore, problems of technological risk are also highly polycentric. The taking of action to prevent one risk will inevitably create another risk.⁶⁹ The legitimacy of collective decision making, depends on the fostering of relationships rather than the mechanical reduction of risk. Crucial to legitimacy is trust. Trust, is vital to democracy and particularly essential in highly interdependent industrial societies.⁷⁰ One of the most powerful means of fostering trust is through deliberative and democratic discourses.⁷¹ What these factors highlight is that attempts to engineer a perfect risk management scheme are rarely successful. The management of risk is about governance not risk reduction. What is needed is to

⁶⁵ Erikson (1994) at Chapter Four; Fischhoff et al (1981); Covello et al (1982) and Douglas (1985). On the undesirability of a no risk approach see Judges (1993).

⁶⁶ Beck (1992) at 64-71.

⁶⁷ Brown (1987).

⁶⁸ NRC (1996) at 24

⁶⁹ Wiener (1998).

⁷⁰ See Giddens (1990) at 33; Freudenburg (1993); and NRC (1996) at 24. Sociological studies of communities recovering from technological disasters highlight the importance of interdependence and distrust. See Erikson (1994); Couch & Kroll Smith (1994); and Edelstein (1993).

⁷¹ For discussions of risk, deliberation and trust see Ruckelshaus (1990) at 107; O'Riordan (1991) at 154; Van der Pligt (1995); Clarke & Short (1993) at 385; and Giddens (1990) at 26-36; 80-91. See Parliamentary Office of Science and Technology (1996) at 13 for a United Kingdom government discussion of risk and trust.

develop a situation in which the overall state of affairs is satisfactory to a community.⁷²

3.3 The Deliberative Paradigm: The Solving of Problems

The starting point for the deliberative paradigm is the nature of technological risk. Problems of technological risk are just that - problems and they cannot be easily reduced by scientific analysis.⁷³ The expertise of a deliberative administrator is defined primarily by their ability to solve problems. This is not to say that the success or failure of any action can be easily assessed – it cannot but that administration must start with the problem at hand. This paradigm has been recognised by many as the only viable mode to risk regulation but it is only recently that it has become a high profile approach to reform.⁷⁴ The most important document being the 1996 NRC report, *Understanding Risk: Informing Decisions in a Democratic Society*.⁷⁵ That report defined risk regulation as a ‘decision driven’ activity which required a ‘broad understanding’ of a problem.⁷⁶ The NRC argued:

Risk characterization is the outcome of an analytic-deliberative process. Its success depends critically on systematic analysis that is appropriate to the problem, responds to the needs of the interested and affected parties, and treats uncertainties of importance to the decision problem in a comprehensible way. Success also depends on deliberations that formulate the decision problem, guide analysis to improve decision participants’ understanding, seek the meaning of analytic findings and uncertainties,

⁷² NRC (1996) at 18.

⁷³ Weinberg (1972) and Fiskel (1990).

⁷⁴ Fiorino (1989) at 508 argues that the ‘public deliberation perspective presents the clearest vision of a participatory process in the risk literature’. For arguments from a deliberative perspective see Laird (1993); Frankenfeld (1992); Chociolko (1995); O’Riordan (1991); Beck (1994) at 29-30; Irwin (1995); Krinsky (1984); and Waddell (1989).

⁷⁵ NRC (1996).

⁷⁶ Ibid. at 2.

and improve the ability of interested and affected parties to participate effectively in the risk decision process. The process must have an appropriately diverse participation or representation of the spectrum of interested and affected parties, of decision makers, and of specialists in risk analysis, at each step.⁷⁷

The decision making process must be shaped to the decision making context.⁷⁸ Regulation is a transdisciplinary exercise which requires taking into consideration issues arising from many different scientific disciplines, economics, law, politics as well as general public policy.⁷⁹ Scientific knowledge is limited and is constantly changing yet it still is 'the best source of reliable, replicable information'⁸⁰ on which to make a decision and should not be discarded.

Moreover, under the deliberative paradigm, uniform approaches are not ideal. A flexible approach to both science and policy is important.⁸¹ Risk regulation must proceed on a case by case basis and as such some experimentation must be engaged in. The distinction between risk management and risk assessment is not an important one and the socio-political context will determine the role and nature of analysis.⁸²

As a collective decision making activity the democratic context is an important one. Deliberative administration must not so much reduce risk as develop a 'shared vision of desired conditions'.⁸³ Deliberation should be about what is an 'unacceptable risk' in a broad not a technical sense. Such a discourse

⁷⁷ Ibid. at 3.

⁷⁸ Ibid. at 137.

⁷⁹ Finkel (1994) at 6.

⁸⁰ NRC (1996) at 98.

⁸¹ Hornstein (1993) at 372.

⁸² NRC (1996) at 138.

⁸³ Ibid. at 18.

can be important in fostering trust. The important feature of deliberation is that the administrator is not merely collecting views but rather engaging in a two way discourse. That discourse is focused upon the problem at hand. The specialist nature of some of the information involved may mean that administration needs to co-ordinate a variety of dialogues. While rationalist expertise is an analytical appendage to democracy, the deliberative administration plays a substantive democratic role in shaping policy and leading the public in a solution.

As with any deliberative paradigm, there is a fear that flexibility, experimentation, and a substantive democratic role will lead to an undesirable degree of discretion. The model does not put forward a rigid framework for action and may superficially seem a vague and thus unworkable approach to risk regulation. As noted in the last chapter, there are a number of important limits on expert authority. The deliberative expert needs to show that they have actively, openly, and conscientiously exercised their discretion in the particular case and that the basis for action was a meaningful deliberative process. Moreover, that they did so with consideration of the 'public interest' as incorporated in the legislation in mind. The workability of the model will be illustrated in Chapter Six but it is important to appreciate at this stage that the key to deliberative risk regulation is flexibility.

4. The Creation of Risk Regulation in the United States

It is enlightening to understand the evolution of risk regulation in the United States in the context of these two abstract paradigms. The creation of the risk regulatory agencies was a core part of the new social regulation movement in

the 1970s. New social regulation was a package of legislative reforms which reoriented the role of the administrative state.⁸⁴ While past regulation had been concerned with regulating commercial activity the legislative reforms of the 1960s and 1970s directed public administration to reduce crime; protect the environment;⁸⁵ and ensure general health and welfare. Within the space of a decade, Congress passed more regulatory statutes than it had in the nation's 179 years⁸⁶ and many have argued that as a revolution in public administration, this era was far more significant than the New Deal. Government and its budget grew at an exponential rate.⁸⁷

4.1 The Politics of Risk Regulation

Yet unlike the New Deal, this dramatic growth was not accompanied by a coherent vision of the role of public administration. Rather reform was immersed in debate and controversy over what should be the role of the administrative state, and in particular what should be the role of expert public administration.⁸⁸ The ambivalent attitude towards public administration was seen in the last chapter but became more intense in the 1960s and 1970s.⁸⁹ The Vietnam war and Watergate

⁸⁴ For a discussion of this period see Lowi (1979) at 113-6.

⁸⁵ The most important legislation in this respect was the National Environmental Policy Act 1969 which required any Federal government department to consider the environmental impact of any major activity. This has raised an interesting body of judicial review case law in its own right but for reasons for space cannot be discussed here.

⁸⁶ Melnick (1983) at 5.

⁸⁷ Between 1970 and 1979 the budget grew from \$866 million to \$5.5 billion. The Federal Register grew from 9,562 pages in 1960 to 74,120 pages in 1980. See Sunstein (1990) at 28.

⁸⁸ Lowi (1995) at 61 discussing the confusion over what should be the role of expertise. Also see Marcus (1980).

⁸⁹ Morone (1998)

intensified distrust in government but the civil rights movement and environmentalism required government to take on a more substantive role.⁹⁰ Activists such as Ralph Nader were both protesting for the need for regulation but at the same time highlighting the problems of agency capture.⁹¹

Risk regulation was the product of numerous social and political forces which were not always easily reconciled.⁹² Nixon noted on the signing of the Occupational Health and Safety Act that it was a:

Bill that represents in its culmination the American system at its best: Democrats, Republicans, the House, the Senate, the White House, business, labor all co-operating in a common goal...⁹³

Yet from a political perspective it was an 'uneasy marriage between the New Right and the New Left'⁹⁴ and while regulation, more often than not had bipartisan political support that support did not translate into a coherent vision of what was to be achieved and how.

From a managerialist or rationalist perspective risk regulation was seen as a logical continuation of the regulatory programs created in the New Deal and the Great Society program⁹⁵ In protecting communities from risk, government was merely extending their regulatory programs in light of increased prosperity. Yet this was only one stimulus leading to environmental regulation and not a very

⁹⁰ Rabin (1986) at 1272-1281.

⁹¹ Yeager (1991) at 149.

⁹² Williams & Matheny (1995) at Chapter Three; Hornstein (1994) at 156; Marcus (1980); and Harris & Milkis (1989) at Chapter Three.

⁹³ Nixon, Richard 'Remarks on Signing the Occupational Safety and Health Act', Dec 29, 1970 in Nixon (1971) at 1160-2.

⁹⁴ Harris & Milkis (1989) at 55.

⁹⁵ Rabin (1986) at 1272. Also see Ackerman & Stewart (1985) and Breyer (1993).

strong one.⁹⁶ What was different during this period was the political ground swell of the environmental, worker safety and consumer protection lobby.⁹⁷ Increasing economic prosperity after World War II led to affluence and the creation of a new and suburbanised middle class. There was a growing political awareness, however, that economic and industrial development had also led to environmental degradation.⁹⁸ Rachel Carson's seminal work *Silent Spring*⁹⁹ highlighted the 'invisible' risk created by pesticide use. Ralph Nader, in his many publications, identified risks which had not been discussed before.¹⁰⁰ Even, Nixon, recognised the limits of science in predicting the adverse side effects of technological progress.¹⁰¹

More importantly, these new movements sought to reform political institutions to ensure they were more democratic.¹⁰² The creation of new agencies such as the Environment Protection Agency (EPA) was a means of putting a 'democratic wish' into action¹⁰³ and works such as Charles Reich's, *Greening of America* is a classic example of this mode of thought.¹⁰⁴ Bureaucratic institutions rather than managing risk were ideally arenas for public participation in which

⁹⁶ Marcus (1980) at 31.

⁹⁷ Shabecoff (1993) at 110 and Landy et al (1994).

⁹⁸ Beck (1996) at 27 discussing the theoretical significance of this.

⁹⁹ Carson (1962).

¹⁰⁰ Marcus (1980) at 60-8.

¹⁰¹ See 115 Congressional Record 22510 (Aug 6, 1969) and Nixon, Richard, 'Special Message to Congress on Consumer Protection', Feb 12, 1971 in Nixon (1972) at 206.

¹⁰² See Cohen & Arato (1992) at 510-522 for a discussion of this from a political theory perspective.

¹⁰³ Morone (1998) and Williams & Matheny (1995) at 28 and Douglas & Wildasky (1982).

¹⁰⁴ Reich (1970).

problems would be dealt with in a broader social context.¹⁰⁵ Public participation could be of two sorts - communal and representational decision making. Of the former, administration was a site in which groups could deliberate in the public interest.¹⁰⁶ Of the latter, new public interest groups such as the Natural Resources Defence Council and the Environmental Defense Fund took up an influential role in government in the 1970s.

One central theme of this period, however was the need to stop 'bureaucratic coagulation'.¹⁰⁷ The Hoover Commission report¹⁰⁸, the Landis report¹⁰⁹ and the Ash Council¹¹⁰ all pointed to the problems of agency inertia and the capture of regulatory programs by business interests.¹¹¹ Whether real or imagined, personal government was perceived as a threat and as was seen in the last chapter, statements of expertise, were mistrusted and construed as cloaks for the administrative accommodation of private interest.¹¹² Bureaucracy was viewed as being 'tainted with an ineradicable lust for power'¹¹³ and a barrier rather than a tool for social change. Any enabling legislation was thus concerned with not only drawing boundaries for agency action but also ensuring that such agencies would be held to account by meaningful accountability mechanisms.

¹⁰⁵ Hornstein (1994) at 157; Stewart (1975); Belzer (1994) at 168; and Glicksman & Schroeder (1991). This has both pluralist and communitarian strands. See Williams and Matheny (1995) at Chapter Three.

¹⁰⁶ Williams (1994).

¹⁰⁷ A phrase used by the Students for a Democratic Society in their Port Huron Statement. 1962 Quoted in Cook (1996) at 129.

¹⁰⁸ Hoover Commission (1949) at 4-7.

¹⁰⁹ Landis (1960).

¹¹⁰ Presidential Advisory Council on Executive Organisation (1971) at 4.

¹¹¹ Harris & Milkis (1989) at 9.

¹¹² Ackerman & Hassler (1981) at 1.

4.2 Ambiguous Legislative Mandates

The legislation under which risk regulation was required to be carried out was a large morass of complex statutes. Each of these created a variety of programs with different and often indecipherable regulatory goals.¹¹⁴ Some statutes regulated specific subject matter in detail¹¹⁵ and others required regulation to protect air or water quality across the nation. Much of this complexity was to do with the fact that each piece of legislation was the product of political compromise and had often been subject to numerous detailed revisions before being passed.¹¹⁶

Generally speaking, the main way in which discretion was and is to be exercised is through the setting of standards and as noted above this can take many different forms. Some examples of risk regulation statutory provisions are listed in Table 1 below. This list is by no means exhaustive but does illustrate some of the most important provisions. There are also numerous other statutes which can be included under the description of risk regulation but those below have been subject to the most litigation and deal directly with the problem of judicial review under scientific uncertainty.¹¹⁷

¹¹³ Long (1952) at 808.

¹¹⁴ For example the Clean Air Act 1970 sets up programs for setting standards for ambient air standards; vehicle standards; acid rain regulation; federal-state co-operation and research.

¹¹⁵ Polychlorinated biphenyl's in the Toxic Substances Control Act 1976 15 USCA §2605.

¹¹⁶ For an example of this see the debates on the Occupational Safety and Health Act 1970. 116 Congressional Record 36369, 37602, 38702 and 42235. Also see Yeager (1991) at 147-175 for a discussion of the Congressional debates over water pollution legislation.

¹¹⁷ Other legislation includes Poison Prevention Packaging Act 1970 and Hazardous Materials Transportation Act 1972.

Table 1 - Some Major Standard Setting Provisions in Risk Regulation.

Statutory Provision	Subject Matter and Agency	Basis of Exercise of Discretion in Setting Standards
Food, Drug and Cosmetic Act 1906 Delaney Clause 21 USCA §348(c)(3)(A)	Food additives FDA	'..that no additive shall be deemed to be safe if it is found to induce cancer when ingested by man or animal' ¹¹⁸
Occupational Safety and Health Act 1970 29 USCA §655(b)(5)	Safety standards for the workplace. OSHA	'The secretary in promulgating standards dealing with toxic materials or harmful physical agents under this subsection shall set the standard which most adequately assures, to the extent feasible, on the best available evidence, that no employee will suffer material impairment of health.. ¹¹⁹
Clean Air Act Amendments 1970 42 USCA §7409(b)(1)	National primary ambient air quality standards EPA	'National primary ambient air quality standards prescribed under subsection (a) shall be ambient air quality standards the attainment and maintenance of which in the judgement of the administrator , based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health'.
Federal Water Pollution Control Act 33 USCA §1317	Toxic and Pre-treatment Effluent standards	'shall be at the level which the administrator determines provides an adequate margin of safety' ¹²⁰
Consumer Product Safety Act 1972 15 USCA §2056(a)	Product safety standards CPSC	'Any requirement of such a standard shall be reasonably necessary to prevent to prevent or reduce unreasonable risk of injury associated with such product'
Federal Insecticide, Fungicide & Rodenticide Act 1948 7 USCA §136a(c)(5)	Pre-market approval of pesticides.	'..when used in accordance with widespread and commonly recognised practice it will not generally cause unreasonable adverse effects on the environment'.
Toxic Substances Control Act 1976 15 USCA §2605(a)	Toxic Substances EPA	'If the Administrator finds that there is a reasonable basis to conclude that the manufacture, processing or distribution in commerce, use, disposal of a chemical or mixture, or that any combination of such activities, presents or will present an unreasonable risk of injury to health or the environment, the Administrator shall by rule apply one or more of the following requirements to such substance or mixture to the extent necessary to protect adequately against such risk using the least burdensome requirements'
Safe Drinking Water Act 1976 42 USCA §300g-1(b)(4) Prior to 1996 amendment ¹²¹	Acceptable levels of contaminants in public drinking water systems.	'each maximum contaminant level goal established under this subsection shall be set at a level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety'.
Resource, Conservation and Recovery Act 1976 42 USCA §6922(a)	Listing and regulation of hazardous waste	'The Administrator shall promulgate regulations establishing such standards, applicable to generators of hazardous waste identified or listed under this subchapter as may be necessary to protection of human health and the environment' ¹²²

¹¹⁸ Note this has been substantially amended in relation to pesticide residues by the Food Quality Protection Act 1996 which inserted 15 §346a.

¹¹⁹ The definition of 'occupational safety and health standard' (29 USCA §252(8)) must also be taken into account. See Chapter Five for a discussion.

¹²⁰ Also see 33 USCA §1316 for national standards of performance.

¹²¹ The amendments will be discussed in detail below.

¹²² Also see 42 USCA §6903(5) for the definition of 'hazardous waste' and §6921(a) for procedure for developing criteria and list of hazardous waste.

Congress wished to avoid granting agencies large amounts of unfettered discretion as they perceived that had done during the New Deal. Mandates to act in the ‘public interest’ were viewed as too vague.¹²³ Instead the legislation specified a regulatory goal or a basis on which discretion should be exercised. As can be seen in the table above, those goals were not consistent. In some cases it was to ‘reduce an unreasonable risk of injury’ and in others to produce an ‘adequate margin of safety’. This uneasy pastiche meant that there was no coherent picture of what a risk regulatory agency should be aiming to achieve.¹²⁴

Moreover, the goals themselves were not easily definable and could be interpreted in a number of ways. If one defined them in line with a rationalist paradigm, then one would presume that what is ‘unreasonable’ could be expressed numerically. Yet if that was the case, as Flournoy noted, many of these provisions presumed an unrealistic level of scientific certainty.¹²⁵ Even if one accepted the deliberative paradigm’s assertion that ‘unreasonable risk’ was a socio-political question and that no single number could represent the unacceptability of a risk there was little else in the legislation which enabled a sophisticated approach to the problem. It was not surprising that Lowi has described these goals as being ‘an expression of sentiments of the desired end result’ rather than a goal directed at preventing an identifiable ‘evil’.¹²⁶

¹²³ Ackerman & Hassler (1981) at 1; Marcus (1980) at 70; and Harter (1982) at 12-3.

¹²⁴ Cranor (1993) at 104.

¹²⁵ Flournoy (1991) at 337. Also see Gaines (1990).

¹²⁶ Lowi (1979) at 117.

Legislation also granted different ambits of power. Thus the Clean Air Act Amendments 1970 and the Federal Water Pollution Control Act 1972 tended to give the EPA statutory deadlines in which to achieve goals or limit their discretion by requiring them to regulate technology.¹²⁷ In contrast the Consumer Product Safety Commission and Occupational Safety and Health Administration were granted more open ended discretion limited by rulemaking procedure and accountability mechanisms.

4.3 Science, Participation and Accountability: The Risk Regulation Agencies

The creation of the new independent expert agencies to carry out risk regulation did little to clarify the ambiguities or solve the problems caused by legislation. Within five years the major risk regulatory agencies were created: the Environment Protection Agency (EPA) (1970); Occupational Safety and Health Administration (OSHA) (1970); Consumer Product Safety Commission (CPSC) (1972);¹²⁸ and the Nuclear Regulatory Commission (NRC) (1975). The Food and Drug Administration (FDA) was created in 1906 but can also be included. This and the first three agencies have been generally described as the most important of the risk regulatory agencies.¹²⁹

The creation of these agencies occurred in a period in which public sector reform was high on the political agenda. Nixon had created the Presidential

¹²⁷ See Ackerman & Hassler (1981) for their critique of this.

¹²⁸ 15 USCA §2053

¹²⁹ NRC (1983) at 40-2.

Advisory Council on Executive Organisation (Ash Council)¹³⁰ to explore the potential for structural reform. What was of prime importance to him was to achieve systematic and co-ordinated regulation Nixon was acutely aware of the transdisciplinary nature of risk problems.¹³¹ Yet the mixture of his proposed reforms, those of Congress, the demands of the public and the necessary compromises resulted in a hodgepodge of institutional structures.¹³² The one unifying theme was distrust of bureaucracy. As one Congressman noted in debating legislation:

I must admit a certain disillusionment about the effectiveness of administrative agencies as the protectors of the public.¹³³

The independent regulatory commissions of the New Deal¹³⁴ were particularly subject to criticism. Proposals for independent agencies to regulate risk were seen by some, as ways of ensuring ‘foot dragging, evasion and indecision’ and such agencies would be sites for the competition of private interests.¹³⁵

Each agency was created in a different manner, with a particular agenda and with a unique structure. The EPA was set up by Executive Order, as an independent organisation (although placed in the central executive) headed by an administrator appointed by the President and subject to Senate confirmation. Many of its programs already existed and were simply transplanted from other

¹³⁰ Presidential Advisory Council on Executive Organisation (1971). For a discussion of its impact see Marcus (1980) at 32-44.

¹³¹ Nixon, Richard ‘Special Message to Congress About Reorganisation Plans to Establish the EPA and National Oceanic and Atmospheric Administration’, July 9 1970. In Nixon (1971) at 578.

¹³² Marcus (1980) at 171-8.

¹³³ 116 Congressional Record 42235 (December 17, 1970).

¹³⁴ Bernstein (1955) and Ackerman & Hassler (1981) at 2, 9.

departments.¹³⁶ It was the product of negotiations concerning the Ash Council recommendations and as such its structure was not as coherent or as rationalist as Nixon desired.¹³⁷

In contrast OSHA, was carved out of the Department of Labour¹³⁸ and an important feature of the Occupational Safety and Health Act 1970 (OSH Act) was that the functions of rulemaking, adjudication and scientific advice were isolated. The role of OSHA was to make rules and to administer the Act. The Occupational Health and Safety Review Commission was a quasi-judicial body with statutory standing that could hear appeals from OSHA enforcement decisions.¹³⁹ The National Institute for Occupational Safety and Health (NIOSH) was to provide scientific advice. The reason for this division lay in some Congressional concerns that the carrying on of all three functions in the one body would lead to a disregard of due process.¹⁴⁰ In contrast again, the CPSC, was a statutory body modelled on the FDA. It was headed by five commissioners who make regulatory decisions by majority vote.¹⁴¹ As such, it is more in accordance with the New Deal model of an independent commission.¹⁴²

¹³⁵ 116 Congressional Record 36514 (October 13, 1970).

¹³⁶ NRC (1983) at 41.

¹³⁷ Marcus (1980) at 48 and Nixon, Richard 'Special Message to Congress About Reorganisation Plans to Establish the EPA and National Oceanic and Atmospheric Administration', July 9 1970. In Nixon (1971) at 578, 581.

¹³⁸ There was no statutory basis on which this was done besides 29 USCA §656(c) which allowed the Secretary of Labour to second staff.

¹³⁹ 29 USCA §661(a).

¹⁴⁰ 116 Congressional Record 37336 (November 16, 1970). Originally it was proposed that enforcement and rulemaking should also be separate but this was seen by many as unworkable. See 116 Congressional Record 36533 (October 13, 1970).

¹⁴¹ NRC (1983) at 41.

¹⁴² Lowi (1979) at 118.

Despite these variations, there were three common factors which were emphasised in the legislation which granted power to these bodies. These were science, participation and accountability. First, an important feature of these new agencies was that they were large experiments in 'science bureaucracies'.¹⁴³ These agencies were required to engage heavily in scientific research and the legislative grants of power in this regard were often broad and open ended.¹⁴⁴ Alongside these agencies a variety of research institutes were set up including NIOSH; the National Cancer Institute (NCI); and the National Centre for Toxicological Research (NCTR). Through this it was hoped a more scientific and objective basis for regulation could be established and thus while there may have been a distrust in bureaucracy there was clearly trust in the scientific method. This could be seen again in Congressional debates, where science was construed as a way of ensuring objectivity in these new agencies.¹⁴⁵ Yet it is important to remember that the science practised by these agencies was quite distinct from the practice of conventional research science.¹⁴⁶ Jasanoff has argued that regulatory science is made up of three components: knowledge production, knowledge synthesis, and

¹⁴³ Jasanoff (1990) at 39.

¹⁴⁴ The CPSC - 'The Commission may (i) conduct research, studies and investigations on the safety of consumer products and on improving the safety of such products': 15 USCA §2054(b). Also see Clean Air Act 42 USCA §7403; Federal Water Pollution Control Act, 33 USCA §1254-1264; Safe Drinking Water Act, 42 §300j-1; Federal Insecticide, Fungicide, and Rodenticide Act 7 USCA §136r; and Toxic Substances Control Act 15 USCA §2609(a).

¹⁴⁵ 116 Congressional Record 36530 (October 13, 1970).

¹⁴⁶ NRC (1983) at 40.

prediction.¹⁴⁷ Generally speaking these three tasks are reflected in the legislative mandates.¹⁴⁸

Equal focus was also placed on the importance of public participation and again this was recognised in Congressional debates as being vitally important to ensuring agency legitimacy.¹⁴⁹ This was consistent with the general trend towards increased participation in government. The risk regulation statutes allowed for a number of participatory tools the most important being informal rulemaking which is discussed below. Rulemaking was designed so as to encourage rather than to discourage public participation.¹⁵⁰ Legislation set up advisory committees¹⁵¹ and allowed anybody to bring a petition to enforce a non-discretionary duty.¹⁵²

The early 1970s also saw the passing of a number of statutes which were designed to enhance participation in government. The Federal Advisory Committee Act 1972¹⁵³ (FACA) made transparent many of the activities of the hundreds of advisory committees which provided technical and policy advice to federal agencies.¹⁵⁴ Moreover the Act provided restrictions on the way advisory

¹⁴⁷ Jasanoff (1990) at 77.

¹⁴⁸ Clean Air Act, 42 USCA §7403(a)(1)-(2) is concerned with the co-ordination of collection of information. 42 USCA §7412(f)(1)(A) requires the NRC to report on methods of calculating risk.

¹⁴⁹ 116 Congressional Record 42235 (December 17, 1970)

¹⁵⁰ Clean Air Act, 42 USCA §7607(h); see Resource Conservation and Recovery Act, 42 §6974(b); and Federal Water Pollution Control Act, 33 USCA §1251(e).

¹⁵¹ Clean Air Act, 42 USCA §7417(a); Safe Drinking Water Act, 42 §300j-5(a); and Occupational Safety and Health Act, 29 USCA §656(a). Also see Resource Conservation and Recovery Act, 42 §6908 for the setting up of small town meetings and ombudsmen.

¹⁵² Clean Air Act, 42 USCA §7604; Resource Conservation and Recovery Act, 42 USCA §6972(a); and Safe Drinking Water Act, 42 §300j-8

¹⁵³ 5 USCA App 2 §1

¹⁵⁴ Jasanoff (1990) at 46-8.

committees were created, who should sit on them and what was their jurisdiction. The Act also provided more restrictive guidelines on how such committees should carry out their business. The Act had important implications for risk regulation because it relied so heavily on advisory committees. The other major legislative development was the Freedom of Information Act.¹⁵⁵ This Act established a legislative 'presumption' that the public had a right of access to government documents. While such a presumption was the subject of a number of exceptions the Act was important in consolidating a philosophy of open government. Specific risk legislation also supported this open approach to government by requiring administrative agencies to publish or make accessible specific documents.¹⁵⁶

The primary common factor however, was accountability and both science and participation were vehicles for ensuring that agencies did not step beyond their remit.¹⁵⁷ Science would ensure agencies would be kept within analytical boundaries and participation would open up agencies to scrutiny. Moreover, rather than relying on the general provisions of the APA, nearly every act stated its own judicial review procedure,¹⁵⁸ which would often vary the scope of review standard¹⁵⁹ or the

¹⁵⁵ 5 USCA §552. See Jasanoff (1990) at 48-9.

¹⁵⁶ Clean Air Act, 42 USCA §7403(b)(1); Resource, Conservation and Recovery Act, 42 USCA §6921(b)(3)(B)(ii)(II) and Consumer Product Safety Act 15 USCA §2054(d).

¹⁵⁷ Marcus (1980) at 44.

¹⁵⁸ Clean Air Act, 42 USCA §7607(d)(9)(A)-(C).

¹⁵⁹ Occupational Safety and Health Act, 29 USCA §655(f); Consumer Product Safety Act 15 USCA §2060 (c); Toxic Substances Control Act, 15 USCA §2618 (c)(1)(B)(i). These all prescribe that the standard of review will be the 'substantial evidence' test despite the fact that rule making is informal. Also see the new 21 USCA §346a(h)(1)(2) which sets up a new process of setting standards for pesticide residues.

nature of the administrative record.¹⁶⁰ This will be discussed in detail in Chapter Four.

There were numerous other provisions and institutional features which were directed at ensuring accountability. In setting up advisory committees or appointing commissioners, a key concern was to ensure that they were unbiased.¹⁶¹ Citizen suits was a populist way of ensuring accountability. Likewise by placing agencies in the central executive the new agencies were more accountable to the President albeit less politically insulated.¹⁶² Strict deadlines were another way of attempting to ensure that agencies achieved their task.¹⁶³ Later reforms only added to this long list of accountability mechanisms.¹⁶⁴

4.4 The Rulemaking Revolution and Hybrid Rulemaking

Risk regulation was part of the ‘rulemaking revolution’.¹⁶⁵ While agencies such as the Interstate Commerce Commission and the Federal Trade Commission had proceeded mainly by adjudication, risk regulation was carried out on the whole, by rulemaking. As was illustrated in the last chapter, the validation of informal rulemaking was one of the reforms of the APA. Yet it had not been accompanied with a precise understanding of what its role should be and in the

¹⁶⁰ Consumer Product Safety Act, 15 USCA §2060.

¹⁶¹ Consumer Product Safety Act, 15 USCA §2053(c).

¹⁶² The exception was the CPSC. Lowi (1979) at 119 describing the CPSC as a ‘monster of unadulterated administrative power’.

¹⁶³ Marcus (1980) at 70.

¹⁶⁴ Note the requirements for rulemaking in the Consumer Product Safety Act, 15 USCA §2058 which require the CPSC to establish the viability of the rule on the basis of a cost/benefit assessment. Also see Clean Air Act 42 USCA §7612, 7618.

¹⁶⁵ Kerwin (1994) at 14.

1960s and 1970s it was promoted for many different reasons.¹⁶⁶ In the main it was popular simply because adjudication was perceived as an inefficient and inconsistent method of regulation. Rulemaking in contrast could be both more effective and more fair by treating like cases alike and allowing a broader number of interest groups to participate.¹⁶⁷ Rules could also promote the Rule of Law and greater accountability.¹⁶⁸ These factors however do not tie rulemaking to any particular model of public administration.

Rulemaking is the heart of risk regulation but its role is ambivalent - it is an uneasy mixture of both the deliberative and rationalist paradigms.¹⁶⁹ The basis of rulemaking in risk regulation are the procedures for informal (notice and comment) rulemaking under the Administrative Procedure Act (APA).¹⁷⁰ This consists of three steps. Public notice in the Federal Register of a proposed rulemaking action; an opportunity to submit written comments; and the publication of the final rule in the Federal Register with a statement of reasons and purpose.

From a rationalist perspective, informal rulemaking can allow for an accurate expert assessment of the risks and the means of reducing them. It is a more rigorous forum than Congress and is a more efficient and accountable process than adjudication.¹⁷¹ Evidence from a wide range of sources can be gathered and

¹⁶⁶ For those promoting rulemaking during this period see Friendly (1962) at 145; Davis (1965)

¹⁶⁷ Pierce (1995) at 59.

¹⁶⁸ Davis (1965)

¹⁶⁹ Strauss (1996) at 755-6 and Pierce (1997) at 185 discussing the problems of ambivalence

¹⁷⁰ 5 USCA §553

¹⁷¹ Note (1964) at 654.

analysed¹⁷² in a process modelled on comprehensive rationality.¹⁷³ Goals can be identified and the various methods of achieving them compared.¹⁷⁴ Participation in the process allows for a more comprehensive database and openness ensures that the methodology of the agency can be analysed. Moreover as legal rules of evidence do not apply, a strict scientific analysis can be engaged in.

Yet rulemaking can also be an integral part of a deliberative paradigm of expertise and can be a way of fostering deliberation.¹⁷⁵ As Kerwin notes ‘the legitimacy of rulemaking is clearly linked to public participation’.¹⁷⁶ The primary aim of informal rulemaking is the promotion of a flexible approach to consultation through notice and comment rulemaking.¹⁷⁷ As Skelly Wright noted, extra judicially, informal rulemaking ‘mandates a dialogue and not a trial’ and accuracy is less important than requiring good faith consideration of all the issues at hand.¹⁷⁸ Emphasis in the rulemaking process should be upon ensuring that all interested parties can participate and that factual issues are considered in an open forum and are subjected to contesting views.¹⁷⁹ This deliberative viewpoint was promoted in

¹⁷² Davis & Pierce (1994, Vol 1) at 261 and Gifford (1980) at 65. Both argue that informal rulemaking is a means of collecting information.

¹⁷³ McGarity (1991) at 10-13 and Shapiro (1988) at 53.

¹⁷⁴ Diver (1981) at 411 and Breyer (1982) at 98.

¹⁷⁵ Justice Holmes early discussion of informal rulemaking in *BiMetallic Investment Co v. State Board of Equalisation* 239 US 441, 445 (1915) cast it in a deliberative light.

¹⁷⁶ Kerwin (1994) at 161. Also see Shapiro (1988) at 49 and McGowan (1979) at 689.

¹⁷⁷ Shapiro (1965) at 930.

¹⁷⁸ Wright (1974) at 380 and 392.

¹⁷⁹ Hamilton (1972) at 1330.

the 1960s case law which saw rulemaking as an ideal vehicle for predictive and policy activities.¹⁸⁰

In nearly all cases the elementary procedures of §553 of the APA¹⁸¹ have been amended by legislation, the agencies themselves and by the courts.¹⁸² The end product of these amendments is what has been labelled ‘hybrid’ rulemaking. This suggests a uniform procedure but nearly every piece of legislation will have a different version of hybrid rulemaking. This again contributes to the confusion and ambivalence about the nature of the role of the agencies. Table 2 below, illustrates just three of the hybrid rulemaking procedures which the EPA must engage in. As is apparent, they range widely in the different requirements which are imposed.

¹⁸⁰ *American Airlines Inc v. Civil Aeronautics Board* 359 F.2d 624, 633 (D.C. Cir. 1966).

¹⁸¹ Which are arguably advocate a deliberative approach.

¹⁸² The court’s role in procedural reform was strongly rejected by the Supreme Court in *Vermont Yankee Nuclear Power Corp. v. NRDC* 435 US 519 (1978). This case and the judicial treatment of rulemaking will be discussed in more detail in Chapter Five.

Table 2 - Examples of Hybrid Rulemaking Procedures for the EPA

Act Name	Clean Air Act General rulemaking provision 42 §7607(d) ¹⁸³	Toxic Substances Control Act Regulation of Hazardous Substances and Mixtures 15§2605(c).	Federal Water Pollution Control Act 33 §1317 - Toxic pollutant list - promulgation of standards ¹⁸⁴
Proposal of Rule	Statement of basis and purpose to include: factual data on which rule is based - methodology used in obtaining data -major legal interpretations and policy considerations summary of pertinent findings of the National Academy of Science and the Scientific Review Committee and why the proposal differs from them.	Publish a statement separate from proposed rule. Statement to include: -effects and magnitude of exposure of substances on health and environment. - Benefits of substances and availability of substitutes. Reasonably ascertainable economic consequences of the rule.	Published effluent standard must take into account: 'its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms in any waters.....'
Ability and Period for Comment	Rulemaking Docket to be open for inspection including in certain circumstances regional offices. - Have all relevant documents on it including OMB ones. Photocopy facilities to be available. At least 30 days.	All submissions to be publicly available.	At least 60 days for written comments Administrator before publishing should 'to the maximum extent practicable' consult the appropriate advisory committees, States, independent experts and Federal Departments and agencies.
Hearings	Administrator should give opportunity for oral presentation Transcript should be kept and the proceeding should be open for 30 days for submission of rebuttal or supplementary information.	Informal hearing on issues on material fact. - Cross examination and rebuttal allowed so as to allow a 'full and true disclosure of the truth'. Administrator may make rulings limiting representation or cross examination. Can also pay compensation for legal fees. - Transcript available to the public.	Available if requested 30 days after the publication of the proposed standard. - Can involve cross examination at discretion of Administrator. Transcript to be available to the public.
Final Rule	- Should be accompanied by Statement of why rule differs from proposed rule. - response to each of the significant comments		Final standard published with such modifications as 'the Administrator finds justified'. Within 270 days of publication of proposed standard. Any standard reviewed every three years.
Scope of Review	'arbitrary and capricious', contrary to constitutional right, excess of statutory jurisdiction, and without observance to procedure. rulemaking record defined.	Defines Rulemaking Record to be reviewed 'substantial evidence in the rulemaking record'. ¹⁸⁵	'not based on substantial evidence'

¹⁸³ Added 1977 - Pub.L. 95-95 §305(a)

¹⁸⁴ Amended 1977 - Pub. L. 95-217 §53(a).

¹⁸⁵ 15 USCA §2618.

In some cases these provisions can be seen as attempting to make rulemaking more rationalist. Agencies were required to explicitly state the factual basis on which they are making a decision and the methodology they have used.¹⁸⁶ Not only did this require some form of record but a record limited to the facts. Legislation could also define what that factual basis should be.¹⁸⁷ Moreover, Order 12,291 and its later amendments required a regulatory impact statement for any major rule (see below). It has also been popular to require agencies to include some form of cost/benefit analysis as part of the administrative record.¹⁸⁸

Other additions however, were clearly directed at ensuring rulemaking was a more deliberative exercise in which a two way discourse was promoted. In some cases, the period for comment was extended from the conventional 30 days to 60 days or even more.¹⁸⁹ This was to encourage as much consultation as possible. There were also provisions which required an informal public hearing.¹⁹⁰ In the case of the Toxic Substances Control Act this included an opportunity for cross examination.¹⁹¹ Agencies also in some cases were required to publish advance

¹⁸⁶ Clean Air Act, 42 USCA §7607(d)(3)(A)-(B).

¹⁸⁷ Occupational Safety and Health Act, 29 USCA §655(a)(5). See Safe Drinking Water Amendment Act 1996 which amended 42 USCA §300g-1 and the Food Quality Protection Act 1996 which inserted 7 USCA §346a.

¹⁸⁸ Toxic Substances Control Act 15 USCA §2605(c)(1); Consumer Product Safety Act 15 USCA §2058(c)(i)

¹⁸⁹ Occupational Safety and Health Act, 29 USCA §655(a)(4) and Federal Water Pollution Control Act, 33 USCA §1317(a)(2).

¹⁹⁰ Occupational Safety and Health Act, 29 USCA §655(a)(3); and Federal Water Pollution Control Act, 33 USCA §1317(a)(2) and Clean Air Act, 42 USCA §7607(d)(5).

¹⁹¹ 15 USCA §2605(c)(3)(A)(ii). Also see and Federal Water Pollution Control Act, 33 USCA §1317(a)(2).

notices of a rules so as to notify the public that they were starting to consider an issue.¹⁹²

The deliberative approach to rulemaking has been favoured by many commentators who view risk as too polycentric, complex and surrounded in too much scientific uncertainty to be easily subject to a rationalist model of rulemaking.¹⁹³ Some Congressional reforms such as regulatory negotiation (reg-neg) have been based on an understanding that a deliberative approach is a far more effective and legitimate way of making rules.¹⁹⁴ At the same time, however, reform has been on a rationalist basis.

5. The 1970s: Searching for a Legitimate Basis

The incoherence of this legislative scheme resulted in the 1970s being a period in which all three arms of government were attempting to make sense of risk regulation. The President had an influential role to play in directing policy and reforming institutional structures. Congress passed new legislation and amended old provisions and the courts ruled on what was a legitimate exercise of agency discretion.

¹⁹² Consumer Product Safety Act 15 USCA §2058(a). See also Percival et al (1996) at 675.

¹⁹³ Boyer (1972) at 112; Cramton (1972); Scalia (1978) at 376; and Hamilton (1972) at 1290.

¹⁹⁴ See Harter (1982) and Kerwin (1994) at 185 for a discussion of this.

On the one hand there was an acknowledgement by everyone of the need to take proactive action on the ‘frontiers of scientific knowledge’¹⁹⁵ President Nixon in proposing occupational health and safety legislation stated:

For man’s lively capacity to innovate is not always matched by his ability to fully understand his innovations fully, to use them properly, or to protect himself against unforeseen consequences of the changes he creates.¹⁹⁶

The new legislative provisions of the Clean Air Act (CAA) and the Federal Water Pollution Control Act (FWPCA) required quick action to ensure a reasonable margin of safety even where there was not full proof of harm. On the other hand, however, distrust in government led to an increased emphasis on ensuring that agencies would not make biased or whimsical decisions. The most effective means of doing this was through requiring administration to show the factual basis on which they were relying.

Thus the debates of the 1970s were fundamentally about this tension. A key issue being what should be the role of factual evidence in decision making and thus what should be the paradigm of expertise. That issue was obscured however, by a number of inherent political and structural problems with risk regulation *per se*.

5.1 The Lack of A Coherent Debate

The EPA was forced to act quickly because legislation required them to set standards or adopt previous standards within a strict time limit.¹⁹⁷ While this was

¹⁹⁵ *Industrial Union Department, AFL-CIO v. Hodgson* 499 F.2d 467, 474 (D.C. Cir. 1974).

¹⁹⁶ 115 Congressional Record 22510 (Aug 6, 1969).

¹⁹⁷ For some of the problems associated with this see Ackerman & Hassler (1981).

justified on the grounds of accountability this sense of urgency resulted in very little forethought about how regulation should actually be carried out. Under the Clean Air Act Amendments of 1970, the EPA had to propose national ambient air quality standards 30 days after the enactment of the legislation.¹⁹⁸ This resulted in the EPA having to use previously developed standards, the Administrator having only three days to review them and subsequent court challenges which quite rightly criticised the lack of analysis.¹⁹⁹ This ‘draconian regulatory burden’²⁰⁰ meant that in many cases, risk regulation agencies would *prima facie* fail. The Clean Air Act is again an example of this and by 1975 70% of air control regions were not meeting air quality standards.²⁰¹ It was rarely questioned whether the logic behind some legislative provisions was achievable at all.

This dilemma was fuelled by the fact that the budgets of the agency were not adequate. While the statutes were described as ‘agency forcing’ and required agencies to take on a wide array of resource intensive roles, the finances were often simply not there. Even during the pro-environment Carter administration there were agency budget cutbacks.²⁰² This problem of budgeting has remained and it is one of the reasons why priority setting has been so high on agency agendas.²⁰³

¹⁹⁸ This was the original s.111 of the CAA.

¹⁹⁹ Marcus (1980) at 90. See *Essex Chemical Corporation v. Ruckelshaus* 486 F.2d 427 (D.C. Cir 1973) and *Kennecott Copper Corp. v. EPA* 462 F.2d 846 (D.C. Cir. 1972) for examples.

²⁰⁰ Yeager (1991) at 178.

²⁰¹ Marcus (1980) at 163.

²⁰² Yeager (1991) at 182-5.

²⁰³ Applegate (1992) at 277.

Moreover, throughout the 1970s, Congress was still passing legislation and in other cases amending it. As Booth has noted there were ‘profound changes in a few crowded years’.²⁰⁴ Clean air and water legislation was substantially overhauled in 1977. In some cases deadlines were reset and this was interpreted as a recognition of regulatory failure.²⁰⁵ Much of this reform, like the original legislation was ‘piecemeal’²⁰⁶ and the lack of coherent vision caused tension. Thus for example the amendments to §7607(d) (see above) of the Clean Air Act required greater participation and a more precise statement of the analytical foundations of the rule. While not necessarily contradictory, the burden of both requirements as well as needing to appease both the public and industry, placed the EPA in a difficult situation. The large volume of these amendments also meant that any discourse tended to be buried beneath a morass of detail.

In many cases there was a large overlap of institutional roles and this tended to frustrate matters even more.²⁰⁷ Agencies were not particularly co-operative and there was little communication between them. This was the case even though the same chemicals were often being regulated by OSHA, EPA and CPSC.²⁰⁸ Their divergent institutional cultures and legislative mandates could result in different standards. This only added to the impression that the agencies had been acting irrationally or were captured by private interests.

²⁰⁴ Booth (1982) at 365.

²⁰⁵ Marcus (1980) at 163-4.

²⁰⁶ Goldman (1995) at 1537.

²⁰⁷ McGarity and Shapiro (1993) at 39 discussing the relationship between OSHA and NIOSH.

²⁰⁸ For example asbestos.

Environmental and public health regulation was highly politicised and the EPA was ‘balanced on the fine point of politics’.²⁰⁹ The right wing and industry claimed that risk regulation would destroy the economy while the left wing claimed it was captured by private interests and was ineffective in protecting health and the environment.²¹⁰ Lack of political insulation also meant that agencies such as OSHA in the 1970s suffered from a quick turn around of administrators, many of who were political appointments with little experience in the area.²¹¹ While the EPA fared better in this regard, it was still ‘dominated by personalities rather than discussion’.²¹² Thoughtful prescription of what the role of these agencies should be tended to be ousted by ideological attacks.²¹³

5.2 Searching for a Paradigm of Expertise

Out of this turmoil, there were some attempts to sketch in more detail the role that science and public policy should play in the exercise of discretion. This was driven by a realisation that risk regulation decisions needed to have some degree of uniformity and consistency.²¹⁴ Despite some appreciation of the need for

²⁰⁹ Yeager (1991) at 131.

²¹⁰ Mendeloff (1979) and Ackerman & Hassler (1981).

²¹¹ McGarity & Shapiro (1993) at 36 and Landy et al (1994).

²¹² Ruckelshaus (1983) at 1026.

²¹³ Consider the response to Ackerman & Hassler (1981). Their discussion about public administration tended to be ignored in book reviews and critiques. The focus was on their political persuasion and direct attacks they had made. The subtitle of their book may not have assisted. See Pederson (1981); Booth (1982); Smith & Randle (1981) and the spirited response by Ackerman & Hassler (1981a) at 1434. Another example is the exchange between Latin (1985) and Ackerman & Stewart (1985).

²¹⁴ Latin (1988) at 96-7;

precautionary action²¹⁵, in court cases such as *International Harvester Company v. Ruckelshaus*²¹⁶ and *Portland Cement Association v. Ruckelshaus*²¹⁷ the courts had made it clear that scientific evidence was crucial in determining the validity of a decision. In the latter case, Judge Leventhal stated:

It is not consonant with the purpose of a rulemaking proceeding to promulgate rules on the basis of inadequate data or on data, that critical degree, is known only to the agency.²¹⁸

The main focal point for discussion was risk assessment. Throughout the 1970s, risk assessment remained a relatively immature tool of analysis and for most agencies was not a substantial part of their regulatory duties. The FDA had led the way in research since the 1950s by developing threshold limits for certain substances.²¹⁹ By 1976, several crude mathematical models had been developed²²⁰ but there was a divergence of opinions about their usefulness among the agencies. There was little settled agreement on issues such as interpretation of epidemiological studies and the extrapolation of animal data to humans. The EPA used risk assessment on a regular basis and as an integral part of decision making.²²¹ Agencies such as FDA and CPSC were less enthusiastic and OSHA was sceptical about its utility and only used it in priority setting.

²¹⁵ *Ethyl Corp v. EPA* 541 F.2d 1 (D.C. Cir. 1976) and *Reserve Mining v. EPA* 514 F.2d 492 (8th Cir. 1975).

²¹⁶ 478 F.2d 615 (D.C. Cir. 1973).

²¹⁷ 486 F.2d 375 (D.C. Cir. 1973). Also see *Essex Chemical Corporation v. Ruckelshaus* 486 F.2d 427 (D.C. Cir 1973) and *Kennecott Copper Corp. v. EPA* 462 F.2d 846 (D.C. Cir. 1972).

²¹⁸ 393.

²¹⁹ NRC (1994) at 29-30.

²²⁰ Kuehn (1996) at 109.

²²¹ 45 Fed. Reg. 5197.

There are two important agency documents from this period, the Interagency Regulatory Liaison Group's (IRLG) guidelines on risk assessment and OSHA's generic carcinogen policy. Both documents represent an attempt to delineate in detail the grounds on which decisions should be made. They take quite different approaches.

The IRLG was a group formed between the FDA, OSHA, EPA and CPSC in 1977 to try and deal with common issues on a co operative basis.²²² In July 1979 guidelines for risk assessment were published in the *Federal Register* for comment.²²³ The document did not stray beyond a scientific agenda and was a good example of rationalist thinking. Its findings were based on the 'best judgements of scientists',²²⁴ and set out in some detail the different methodologies used in risk assessment. It stressed the need for any methodology or research to be subject to scientific peer review.²²⁵

While it was the most comprehensive set of guidelines of risk assessment at the time, what the document did not resolve was what should be the role of risk assessment in regulatory decision making.²²⁶ This caused friction between agencies and was never properly resolved.²²⁷ The document did not have any legal force and

²²² Landy et al (1994) at 172-180.

²²³ 44 Fed. Reg. 38,858, July 6, 1979.

²²⁴ Ibid. at 38,858.

²²⁵ Ibid. at 39,860.

²²⁶ Ibid. at 39,871-2.

²²⁷ NRC (1983) at 61 and Landy et al (1994) at Chapter Six.

it was doubtful whether it was ever dutifully applied by any agency, but it is a forerunner of later reports and in particular the 1983 NRC report.²²⁸

In contrast and in response, OSHA's generic cancer policy was a nod in the direction of the deliberative paradigm.²²⁹ This policy published in 1980 and entitled 'Identification, Classification and Regulation of Potential Occupational Carcinogens' was the product of over 2 years of discussion.²³⁰ It is a supplement to the IRLG guidelines.²³¹ OSHA saw the most important issue in risk regulation was to reconcile a desire for consistency with placing:

fluid, developing science into a rational and efficient legal/policy context without creating a rigidity that would hinder the scientific approach or meaningful scientific advances²³²

OSHA recognised that due to scientific uncertainty, rulemaking could become easily paralysed if every possible scientific controversy was raised.²³³ To that end, they developed a generic carcinogen policy which set out scientific and policy criteria on which they would prioritise and regulate substances. That policy included: a general approach to the interpretation of research data; a three list system of priority setting; a list of the factors they would take into account;²³⁴ and model standards.²³⁵ The factors included the severity of the hazard and the number

²²⁸ NRC (1994) at 32-3.

²²⁹ Jasanoff (1982).

²³⁰ 45 Fed. Reg. 5002, January 22 1980.

²³¹ NRC (1983) at 62.

²³² 45 Fed. Reg. 5004.

²³³ Ibid. at 5212-3.

²³⁴ Ibid. at 5210.

²³⁵ Ibid. at 5283-9.

of people exposed to it. The existence of information about the harm was only one factor among many.

The guidelines were an explicit mix of policy and science. OSHA stressed the need to deal with carcinogens differently because of the nature of the adverse health effects associated with them.²³⁶ Those chemicals deemed to be in the top priority list would be regulated to the lowest extent economically and technologically feasible.²³⁷ This was even though there may not be definitive proof of harm. As well, OSHA emphasised the importance of flexibility and stated that the rule should be able to be easily amended so as to take into account changes in scientific knowledge.²³⁸

This document, in sharp contrast to the IRLG's guidelines, focused in on the problem to be regulated rather than the tools of analysis. While scientific evidence was important, it was not the only issue that OSHA should consider in regulation. Moreover, this statement was an explicit recognition of the complex intertwining between science and policy. With that said, such a document did have its limitations, the most important being that while scientific evidence was flexible, policy was not. The 'lowest extent feasible policy' would only be departed from in 'certain exceptions where unique circumstances exist'.²³⁹ Moreover, there was little consideration of policy issues beyond cost/benefit analysis and technological and economic feasibility.

²³⁶ Ibid. at 5024.

²³⁷ Ibid. at 5284.

²³⁸ Ibid. at 5204

²³⁹ Ibid. at 5005.

This highlights the problem, that while increasing attention was being paid to the scientific aspects of decision making, the policy aspects were being ignored. This was mainly because, many of the policy decisions had seemingly been already taken by Congress and it was not legitimate for agencies to intervene. Nixon in setting up the EPA had presumed that the Council on Environmental Quality would take the policy lead.²⁴⁰ While there were some forays into policy, like OSHA's attempts they tended to be blanket approaches advocating precaution in the face of uncertainty. This may have been encouraged by the court's interpretation of the new statutes in cases such as *Ethyl Corp v. EPA*²⁴¹, *Reserve Mining v. EPA*²⁴² and *Industrial Union Dept, AFL-CIO v. Hodgson*.²⁴³ While there was a recognition of the need for precautionary action and that the decision of the regulator in these circumstances was akin a 'legislative policy judgement',²⁴⁴ there was very little discussion about how such discretion would be legitimately exercised.

6. The 1980s: The Supremacy of Rationalism

The inevitable failures and illogicalities of environment regulation in the 1970s resulted in a growing body of conventional thought that reform was required. The comment of Ackerman and Stewart below was a typical one:

²⁴⁰ Nixon, Richard 'Special Message to Congress About Reorganisation Plans to Establish the EPA and National Oceanic and Atmospheric Administration', July 9 1970. In Nixon (1971) at 578,582.

²⁴¹ 541 F.2d 1 (D.C. Cir. 1976).

²⁴² 514 F.2d 492 (8th Cir. 1975).

²⁴³ 499 F.2d 467 (D.C. Cir 1974).

²⁴⁴ Ibid. at 474.

The present regulatory system wastes tens of billions of dollars every year, misdirects resources, stifles innovation, and spawns massive and often counterproductive litigation.²⁴⁵

Whether this was the case or not was highly controversial. Industry claimed that regulation was oppressive and on their figures was producing little benefit.²⁴⁶ In many cases, however, it was argued that regulation had actually led to more profit and greater industry efficiency.²⁴⁷ Moreover as the benefits of regulation were so long term they could not be easily assessed. It is little use entering into a debate concerning these arguments as the figures are so easily manipulated.²⁴⁸ Moreover, in light of the legislative complexity it is difficult to gain a perspective.

6.1 Accountability and the Rationalist Paradigm

Two events in the early 1980s were the catalysts for a dramatic shift towards the rationalist paradigm. Both occurred in the process of holding agencies to account and both put in place a long term program of rationalist expertise. The first event was the Supreme Court's decision in *Industrial Union Department, AFL-CIO v. American Petroleum Institute*²⁴⁹ (The *Benzene* decision). That decision is discussed in detail in Chapter Five but it useful to note the key findings of the court.

In a plurality decision, the Court struck down OSHA's standard in relation to exposure to benzene in the workplace. The court interpreted the OSH Act so as

²⁴⁵ Ackerman & Stewart (1985) at 1333.

²⁴⁶ Viscui (1996).

²⁴⁷ Ashford (1994) and Percival in Committee on Government Operations (1994) at 78.

²⁴⁸ For a simple example of this see Hahn (1996) at 229 for an analysis of how figures of cost effectiveness can be manipulated.

²⁴⁹ 448 US 607 (1980).

to allow OSHA to regulate only where there was a 'significant risk'.²⁵⁰ The court defined this as 1 in 1000 and despite the fact that Justice Stevens noted that this number should not be a 'mathematical straitjacket' the decision:

Strongly signaled that some form of quantitative risk assessment was necessary as a prelude to deciding whether a risk was large enough to deserve regulation.²⁵¹

Moreover, the court defined 'substantial evidence' so that any decision should be based upon a 'body of reputable scientific thought'.²⁵² The case was an implicit judicial rejection of OSHA's generic cancer policy²⁵³ and it clearly defined the task of an agency in analytical terms.

The second catalyst was the reforming of presidential oversight. Since the late 1960s, the president had exercised oversight functions but on the whole these had been minimal.²⁵⁴ In 1981, that changed with the newly elected President Reagan passing Order 12,291. This required any major rulemaking initiative²⁵⁵ to be accompanied by a 'regulatory impact statement'(RIS). The Order stated among other things:

Administrative decisions should be based on adequate information concerning the need for and consequences of proposed government action.

Regulatory action shall not be undertaken unless the potential benefits to society for the regulation outweigh the potential costs to society.....²⁵⁶

²⁵⁰ There was little basis for this. See Sunstein (1990) at 194-7.

²⁵¹ NRC (1994) at 33.

²⁵² 656.

²⁵³ That policy is still on the books but is no longer used by OSHA. See Ashford & Caldart (1996) at 105.

²⁵⁴ McGarity (1991) at 17-19.

²⁵⁵ Defined as an annual effect on the economy of \$100 million; major increase in costs for consumers or industry; or causing serious adverse effects on competition and employment. McGarity (1991) at 21.

²⁵⁶ Quoted in McGarity (1991) at 20.

President Reagan justified the reforms on the grounds that it was ‘reassurance to the American people of the government’s ability to control regulatory activity’.²⁵⁷ To that end, the RIS was to include a cost/benefit analysis of the rule, generally in monetary terms although those factors which could not be quantified could also be described. As a process of generic oversight the impact of this method of accountability has been dramatic but not the focus of discussion here.²⁵⁸

6.2 *Risk Assessment in the Federal Agencies*

The *Benzene* decision led Congress to commission the NRC to write a report on risk assessment. While the IRLG guidelines had not resolved the issue of what should be the role of risk assessment the NRC report did - construing risk assessment as the most important task of a risk regulation agency. The report, *Risk Assessment in the Federal Government: Managing the Process*, was published in early 1983 and has become the ‘bible’ of risk assessment in the United States. It is a ‘textbook’ description of a rationalist paradigm of administration and was discussed in detail above.²⁵⁹ The document is not a detailed discussion of scientific methodology but rather an analysis of institutional structures and in particular what role expert analysis should play in risk regulation.

There were three factors which the NRC were required to consider. These were:

²⁵⁷ Reagan, Ronald ‘White House Report on the Program for Economic Recovery’, February 18, 1981 in Reagan (1982) at 128.

²⁵⁸ For a perceptive analysis see McGarity (1991). Other discussions see Gray (1998) and Plides & Sunstein (1995).

²⁵⁹ See Section 2.1-2.3.

- To assess the merits of separating the analytic functions of developing risk assessments from the regulatory functions of making policy decisions.
- To consider the feasibility of designating a single organization to do risk assessments for all regulatory agencies.
- To consider the feasibility of developing uniform risk guidelines for use by all regulatory agencies.²⁶⁰

The NRC concluded that while there should be no separate organisation to carry out risk assessments, in each agency a ‘clear conceptual’ distinction should be maintained between risk assessment and risk management.²⁶¹ While the NRC acknowledged that such a distinction was somewhat artificial they argued that without it the credibility of the agency could be compromised.²⁶² The other recommendations were concerned with ensuring that any assessment by the agency was as accurate as possible.²⁶³ While the report rejected the concept of a separate risk assessment agency it did promote uniform guidelines and stressed, that while there may be different legislative duties, the core set of guidelines should remain the same.²⁶⁴

What is presumed by these conclusions is that good risk regulation can be achieved through the application of a universal methodology. This is at odds with a more complex understanding of technological risk. Moreover, the driving force behind these reforms was accountability. As Ruckelshaus, the EPA administrator, writing shortly after the report noted:

Risk assessment at EPA must be based only on scientific evidence and scientific consensus. Nothing will erode..... public confidence faster than

²⁶⁰ NRC (1983) at 2.

²⁶¹ Ibid. at 151.

²⁶² Ibid. at 152.

²⁶³ Ibid. at 153-162.

²⁶⁴ Ibid. at 162-5.

the suspicion that policy considerations have been allowed to influence the assessment of risk.²⁶⁵

The need to ensure decisions were being based on ‘reputable scientific thought’ was of prime importance. Moreover, the EPA, Ruckelshaus noted was simply an ‘instrument of policy’.²⁶⁶ Like a Weberian bureaucracy it was not to lead or develop policy but rather was to be an analytical adjunct to the democratic process. After the report, the distinction between risk management and risk assessment was clearly solidified and risk assessment was developed in accordance with the report. In 1986, EPA drafted guidelines for risk assessment (updated in 1992) and this uniform approach has been dominant ever since.

6.3 Comparative Risk Assessment

The next step in the evolution of the rationalist paradigm was to put regulatory priority setting, and thus risk management on a more rationalist footing. This was through comparative risk assessment (CRA). It was the logical outcome of the *Benzene* decision defining significant risk numerically, the requirement for an RIS and the judicial review cases which had stressed the importance of considering management issues in a comprehensively rational fashion.²⁶⁷ As Hornstein noted, CRA promised ‘science, rationality and synopticism’.²⁶⁸

²⁶⁵ Ruckelshaus (1983) at 1027.

²⁶⁶ Ibid. at 1026.

²⁶⁷ McGarity (1991) at 10-13. In the case law see *Motor Vehicles Manufacturers Association v. State Farm Mutual Automobile Insurance Company* 463 US 29, 43 (1983). It was also a way of attempting to deal with inadequate budgets.

²⁶⁸ Hornstein (1992) at 584.

In 1987 the EPA published, *Unfinished Business: A Comparative Assessment of Environmental Problems*,²⁶⁹ a document described by the then Administrator, as a ‘credible first step towards a promising method of analysing, developing and implementing environmental policy’.²⁷⁰ In it, the agency compared the severity of a number of risks and how they were regulated across EPA programmes. In most cases the risks being regulated were not risks that the experts had assessed were the most severe but rather those that the public perceived as being the most serious. In conclusion it was argued that the EPA was irrational and reactive and thus reform was required.²⁷¹

In 1990, the Science Advisory Board of the EPA published *Reducing Risk: Setting Priorities and Strategies for Environmental Protection*.²⁷² In the report the Board strongly agreed that there was a need for more strategic and co-ordinated risk regulation based on CRA. The Board argued:

The concept of environmental risk, together with its related terminology and analytical methodologies, helps people discuss disparate environmental problems with a common language. It allows many environmental problems to be measured and compared in common terms, and it allows different risk reduction options to be evaluated from a common basis.²⁷³

Risk, as assessed through risk assessment, could be a universal yardstick for risk management and the means through which rational approaches to risk regulation could be developed. Recommendations included the need to carry out continuous

²⁶⁹ US EPA (1987).

²⁷⁰ As quoted in Lash (1994) at 74.

²⁷¹ An image which has persisted. See Hahn (1996); Graham (1996) and Breyer (1993). See Heinzerling (1998) for a critique of this line of analysis.

²⁷² Science Advisory Board (1990).

²⁷³ Science Advisory Board (1990) at 2.

assessments on priorities and to develop methodologies so as to account for long term environmental effects in economic analyses.²⁷⁴

The 1980s was a period in which the rationalist paradigm of public administration was clearly dominant. As a model of public administration, it was consistent with the political forces of the period including the anti regulation movement; the non-delegation philosophy²⁷⁵ and of prime importance - distrust in bureaucracy. Yet while rationalism was ascendant there was an awareness that it was also problematic. Ruckelshaus and others did recognise the uneasy relationship between science and law, going so far as to describe it as a 'shotgun wedding'.²⁷⁶ There were constant referrals to the fact that the assessment/management distinction was an artificial one²⁷⁷; that uncertainty made assessment problematic;²⁷⁸ and that the public should play a greater role in decision making.²⁷⁹ Despite this, the rationalist paradigm persisted.

7. The 1990s: An Era of Reform?

In 1990 Congress passed the Clean Air Act amendments. That Act substantially amended 42§7412 and replaced risk based standard setting with a technology based scheme. It put in place a list of substances (which can be edited by the EPA) which are required to be regulated through using maximum achievable

²⁷⁴ Science Advisory Board (1990) at 6.

²⁷⁵ See Schoenbrod (1993).

²⁷⁶ Davis (1985).

²⁷⁷ Jasanoff (1990).

²⁷⁸ Shrader-Frechette (1993)

²⁷⁹ Fiorino (1989).

control technology. These reforms were directed at promoting speedy regulatory action and were an implicit rejection of the discretionary standard setting approach.²⁸⁰ This however, while a dramatic step, did little to reform the overall structure of risk regulation. By the early 1990s, the demand was for ‘meta’ reform in the face of a perceived crisis²⁸¹ There were two distinct problems identified, irrational priority setting and ossification.

7.1 Priority Setting and Ossification: A Mixed Diagnosis of the Problem

The impact of the emphasis on CRA was to accent the fact that the regulation of different substances was not occurring on a rigorous analytical basis of ‘worst things first’ but rather, as noted above in a more haphazard fashion. Stephen Breyer, writing before his appointment to the Supreme Court, argued that risk regulation was flawed because of tunnel vision, inconsistency and random agenda selection.²⁸² ‘Tunnel vision’ was where an agency dedicated a large amount of resources to removing the last vestiges of a problem.²⁸³ Breyer argued for the creation of an elite type of bureaucracy that would be able to rationalise the problems; offer up scientific expertise; be politically insulated; and would wield authority on issues.²⁸⁴ Yet like those before him, much of the justification for Breyer’s view, lay in holding an agency to account. Breyer noted:

²⁸⁰ Latin (1991). Risk assessment is still required for assessing residual risk standards and for the process of adding and deleting substances from the list.

²⁸¹ Finkel (1994) at 5.

²⁸² Breyer (1993) at Chapter One.

²⁸³ Superfund is a good example of where this has been a problem. See Hird (1994).

²⁸⁴ Breyer (1993) at 61-3.

Insofar as a systematic solution produces technically better results, the decision will become somewhat more legitimate, and thereby earn the regulator a small amount of prestige, which may mean an added small amount of public confidence.²⁸⁵

Many agreed with this approach²⁸⁶ and in the early 1990s, Congressional Committees explored in detail legislative proposals for making risk regulation more rational.²⁸⁷

Yet others began to view the rationalist paradigm as the real problem and in particular that 'analysis had diminishing returns'.²⁸⁸ Those such as the Carnegie Commission, while rationalist in outlook, also stressed that the complexity of risk issues did not always make accuracy possible.²⁸⁹ Others however, saw that a metamorphosis of risk regulation was required because rationalism had led to ossification of rulemaking.²⁹⁰

Ossification or 'paralysis by analysis' occurred when rulemaking became overburdened by analytical and procedural requirements. Rulemaking records had become larger and larger. Likewise, while OSHA's final asbestos rule in 1974 had been about 5 pages long, their 1997 methylene chloride rule was 118 pages.²⁹¹ Rulemaking periods had become prolonged and the EPA claimed in 1993 that any

²⁸⁵ Breyer (1993) at 63.

²⁸⁶ Hahn (1996); Graham (1996); and Viscui (1996).

²⁸⁷ Committee on Science (1995); Committee on Commerce (1995); Committee on Government Operations (1994); Committee on Science, Space and Technology (1993); Committee on Science, Space and Technology (1993a); Committee on Energy and Natural Resources (1993); and Committee on Science, Space and Technology (1994).

²⁸⁸ Robert Percival in oral evidence to Committee on Government Operations (1994) at 77.

²⁸⁹ Carnegie Commission (1993) at 31, 75-89.

²⁹⁰ Pierce (1995) at 62 and McGarity (1992) at 1386 and Scalia (1981) at 26-8.

²⁹¹ 62 Fed. Reg. 1494, Jan 10 1997.

rulemaking process took about 5 years to complete.²⁹² Rulemaking was moving at a ‘glacial rate’.²⁹³ Ossification was primarily (although not solely) a problem of risk regulation.²⁹⁴ Moreover, it represented a serious problem - agencies were unable to take required regulatory action and human and financial resources were wasted.²⁹⁵ The causes of ossification were the fact that agencies were being hit ‘by a torrent of forces exerted by the public, the media, industry, the Executive office of the President, legislators and the courts’.²⁹⁶ Judicial review was clearly identified as a major contributor.²⁹⁷

7.2 Caught Between the White House & Congress: The Battle for Reform

The perceived quandaries of risk regulation resulted in it becoming the centre of a heated and controversial debate about the legitimacy of the administrative state. In the 1990s, both the President and Congress took leading roles in attempting to push through reform. These reforms were aimed at the whole of regulation, although risk regulation was singled out as an area particularly in need of improvement.

In 1993, President Clinton’s repealed Order 12,291 by replacing it with Order 12,866. That order was a reaffirmation of the need to assure any agency

²⁹² Carnegie Commission (1993) at 108. For studies of ossification see Mendeloff (1988); Pierce (1991); and Mashaw & Harfst (1990).

²⁹³ Percival in written evidence to the Committee on Government Operations (1994) at 86.

²⁹⁴ Carnegie Commission (1993) at 108.

²⁹⁵ For more discussion of ossification see Chapter Five.

²⁹⁶ Carnegie Commission (1993) at 73.

²⁹⁷ McGarity (1992) and Seidenfeld (1997).

decision making was not subject to ‘improper influence’,²⁹⁸ and that cost/benefit analysis was an important foundation of public decision making. At the same time however, the philosophy on which the rule was based was more concerned that regulation addressed a ‘compelling public need’²⁹⁹ which not only included the traditional rationalist concern of correcting market failure but also ensuring the ‘well being of the American people’. The order stressed the need for greater freedom of information, public participation, and considerations of equity and distribution to be taken into account.³⁰⁰ While not a revocation of rationalism it was an important recognition that regulation was not merely about efficiency but about collective decision making.³⁰¹

In 1994 the voting in of the Republican Congress was quickly followed by attempts put in place their ‘Contract with America’ package of reforms which included changes to budgetary policy, greater Congressional oversight and a dramatic reformation of the administrative state, in particular risk assessment. Part of their agenda was clearly anti regulatory. In 1996 they amended the Administrative Procedure Act adding Chapter 8 which required congressional review of agency rulemaking.³⁰² This allowed any major proposed rule to be put before Congress including the cost/benefit analysis on which it was based. Congress could ‘disapprove’ it. This added another analytical and political hurdle

²⁹⁸ Clinton, William ‘Remarks on Signing the Executive Order on Regulatory Planning and Review and an Exchange With Reporters’ September 30 1993 in Clinton (1994) at 1663.

²⁹⁹ Executive Order 12 866, Sec. 1.

³⁰⁰ Plides & Sunstein (1995) at 39.

³⁰¹ See Finkel giving oral evidence to Committee on Government Operations (1994) at 162 for a discussion of this.

³⁰² 5 USCA §801 et seq.

to regulation. Yet this was only one aspect of their reforms. One of their predominate concerns was to ensure that public administration was accountable and grounded firmly in analysis.³⁰³ Sunstein has described this period as the ushering in of the 'cost/benefit state',³⁰⁴ and the many proposals for reform required agencies to prove that the benefits of regulation outweighed the costs.

Reform proposals have been of two types. The first were specific amendments such as the Safe Drinking Water Amendment Act 1996 and the Food Quality Protection Act 1996. The amendments to the Safe Drinking Water Act set out the information requirements for any rule in great detail. The basic thrust of these were that:

In carrying out this section [standard setting], and, to the degree that an Agency action is based on science, the Administrator shall use-

- (i) the best available, peer reviewed science and supporting studies conducted in accordance with sound and objective scientific practices; and
- (ii) data collected by accepted methods or best available methods (if the reliability of the method and the nature of the decision justifies the use of the data).³⁰⁵

These type of reforms limited EPA discretion by defining what was the basis for reasonable administrative action.

The other type of reform proposed was generic legislation or 'supermandates' akin to the APA.³⁰⁶ Most of these bills were proposed by the

³⁰³ For a discussion of this period see Sunstein (1997) at 360-5; Schierow (1995); Applegate (1995); Goldman (1995).

³⁰⁴ Sunstein (1997) at Chapter 14.

³⁰⁵ 42 USCA §300g-1(b)(3)(A).

³⁰⁶ Sunstein (1997) at 360.

104th congress and all failed.³⁰⁷ The bills, with titles such as the ‘Comprehensive Regulatory Reform Act’,³⁰⁸ ‘Risk Assessment And Cost Benefit Act’,³⁰⁹ and ‘Regulatory Procedures Reform Act’³¹⁰ set out the analytical criteria of rulemaking including cost/benefit analysis, risk assessment, requirements for scientific peer review, and the means by which agencies should be held to account including judicial review. Bill, H.R. 1022 stated that it was important:

To provide more cost-effective and cost-reasonable protection to human health and the environment, regulatory priorities should be based upon realistic consideration of risk; the priority setting process must include scientifically sound, objective, and unbiased risk assessments, comparative risk analysis, and risk management choices that are grounded in cost-benefit principles.³¹¹

As with the 1980s, the aim of these bills was to ensure accountability. Senator Dole in debating the Comprehensive Regulatory Reform Bill³¹² argued:

What the bill demands is accountability, by insisting that the decision maker articulate the basis for these judgements on the record. The principles of judging risks and weighing costs and benefits are rational and widely used in our daily lives. What is unacceptable is to allow government agencies to avoid these type of judgements when enacting regulations that impose huge costs on our economy.

An important aspect of these bills was provisions for judicial review and these will be discussed in detail in Chapter Five. The 104th Congress failed to pass any of these bills. One reason being that peer review was perceived as a way of industry

³⁰⁷ H.R. 1022, S. 9, S.291, S. 343 (Dole Bill), and S.1001.

³⁰⁸ S.343.

³⁰⁹ H.R. 1022.

³¹⁰ S.1001.

³¹¹ S. 2(3).

³¹² S.343, 141 Congressional Record, S9280 (June 28, 1995).

scientists (and thus private interests) having too powerful an influence over rulemaking.³¹³

In June 1997, Senators Levin and Thompson put forward a bill before the 105th Congress - the Regulatory Improvement Act 1997.³¹⁴ That Bill rests on the same premise as the 104th Congress bills, but also on the premise that 'good judgement' is important in regulation³¹⁵ and that requiring an 'estimate of risk' could lead to the arbitrary selection of a single risk figure'.³¹⁶ As of, 22nd July, 1998 that bill is still before Congress in an amended form and has now received support from central administration.³¹⁷ Most of the amendments have been directed at lessening the analytical requirements. In May 1998 a Senate Committee report on the legislation while generally in favour also included a powerful minority report which argued that what was required was not more analysis but approaches based on flexible problem solving.³¹⁸

7.3 The Shift Towards Deliberation

The debate over this Bill is unlikely to be easily resolved, although clearly there is a commitment to a rationalist model of public administration. The major reason for this is that this is seemingly the way in which to hold an agency to account. That is of course, only if the task of a risk regulator is perceived to be one

³¹³ 143 Congressional Record H1691, (April 17 1997).

³¹⁴ S. 981.

³¹⁵ S. 2(3) of the amended version 2 Feb. 1998.

³¹⁶ 143 Congressional Record S6751 (27 June 1997). In March 1998 the Federal Regulatory Risk Assessment Bill was also put forward. S. 1728, 6th March 1998.

³¹⁷ 144 Congressional Record S8806-S8810.

³¹⁸ Committee on Government Operations (1998).

of assessing and reducing risk. The validity of the rationalist concept of expertise has slowly been eroded and outside the torrent of political debate there has been a growing realisation that risk regulation is not primarily about analysis but rather about collective problem solving.³¹⁹ In 1990 Congress passed the Negotiated Rulemaking Act³²⁰ which provided for a deliberative process to occur before notice and comment rulemaking. The Act was to expire after six years and while controversial³²¹ and not wholesale reform,³²² it was permanently reauthorized in 1996.³²³ The Act is discussed in more detail in Chapter Six, although it should be noted that it represents more a symbol than any dramatic shift.

In other areas however, greater reanalysis has been taking place. In 1994 the NRC published a report, *Science and Judgement in Risk Assessment*.³²⁴ The report had been commissioned as part of the 1990 Clean Air Act amendments and is a far more technically detailed report than the 1983 NRC report. It contains a detailed discussion about the problems in risk assessment including the use of default options, models, and risk characterisation. Among the findings of the report was that the management/assessment divide had resulted in risk assessment being 'mistakenly perceived as a search for the "truth" independent of management concerns'.³²⁵ Moreover, the NRC argued that inflexibility of the distinction was a

³¹⁹ Fiskel (1990); Freeman (1997); and Williams & Matheny (1995).

³²⁰ 5 USCA §561-570

³²¹ Coglianese (1997), Funk (1997) and Harter (1997).

³²² Wald (1997a).

³²³ Administrative Dispute Resolution Act 1996, Pub. L. 104-320.

³²⁴ NRC (1994).

³²⁵ Ibid. at 267.

barrier to good decision making.³²⁶ Problems of ‘tunnel vision’ and ‘irrational’ agency agendas were a product of focusing too heavily on methodology.³²⁷ They argued that ‘EPA should rely more on scientific judgement and less on rigid procedures’³²⁸ Problem solving not analysis should be the task of these agencies.

This shift was taken a step further in their 1996 report, *Understanding Risk: Informing Decisions in a Democratic Society*.³²⁹ That report is a powerful statement in favour of the deliberative paradigm and was noted above as a classic example of it. The report focused on the last aspect of risk assessment, risk characterisation but the implications of it are for the whole of risk regulation. The report stated that:

Coping with a risk situation requires a broad understanding of the relevant losses, harms or consequences to the interested and affected parties³³⁰

As such risk regulation is not about estimating and reducing risk but rather ‘developing a shared vision of desired conditions’.³³¹ To that end risk characterisation should be viewed as a recursive analytic-deliberative exercise in problem solving. The role of public participation is not one way communication but rather a two way discourse in which an understanding of the problem is developed. The NRC requires that agencies should:

³²⁶ Ibid. at 259.

³²⁷ Ibid. at 260.

³²⁸ Ibid. at 263.

³²⁹ NRC (1996).

³³⁰ Ibid. at 2.

³³¹ Ibid. at 18.

Combine analysis with deliberation, broaden the range of outcomes potentially subject to analysis, and broaden participation in activities that were previously restricted to analytic experts and a few decision makers.³³²

The report emphasises the importance of analytical rigor and making explicit uncertainty and also the need to tailor science to the problem at hand.³³³ In the Appendices there are a number of case studies which illustrates the validity of their approach. One of the key issues stressed in the report is that the process of problem formulation is a fundamental step in finding a solution. The details of the report are discussed in Chapter Six and it would be difficult for anyone to dismiss the report as merely wishful thinking.

This need for more careful problem formulation was also emphasised in the Presidential/Congressional Commission on Risk Assessment and Risk Management's (the Commission) 1997 report.³³⁴ That Commission was another product of the Clean Air act amendments and while its conclusions do have a more rationalist cast, it does emphasise the importance of stakeholder involvement at all stages of the process.³³⁵ While these two reports do not represent that a fundamental change has taken place they do signify that the question of expertise is an open one and that mainstream institutions take the issue of deliberation seriously.

³³² Ibid. at 133.

³³³ Ibid. at 142-52.

³³⁴ Presidential/Congressional Commission on Risk Assessment and Risk Management (1997).

³³⁵ Ibid. at 7.

8. Conclusion

The task of risk regulators has never been an easy one. It is shrouded in scientific uncertainty, constrained by illogical legislation, and has taken place against a rich tapestry of political debate over the nature of public administration. There is a danger that the controversy surrounding risk regulation is classified simply as an argument between the pro and anti regulation forces in the United States. But as John Graham, noted in evidence to a Congressional Committee:

We're not here for less regulation, we're not here for more regulation, we're here for smarter regulation, and that's precisely what risk analysis is about.³³⁶

In 1998, we are still very much at the same point that Senator Saxbe was in 1970. The crucial but unresolved issue is what should be the role and nature of expert public administration. As seen above, while the rationalist paradigm has been superficially attractive, it has also led to ossification and an emphasis on analysis at the cost of democratic decisions making.

Moreover, it is clear that accountability mechanisms have had an important role to play. Boyden Gray has noted that the history of regulatory reform has been a 'sustained effort to impose some accountable restraint on agency discretion'.³³⁷ While judicial review, is not the only means of holding an agency to account, it was one of the first and still has an important impact. It has been the source of many of the authoritative statements on what is legitimate authority. At a time when its role is under legislative scrutiny it is vitally important to understand what exactly that role has been and what ideally it should be.

³³⁶ Committee on Government Operations (1994) at 154.

³³⁷ Gray (1998) at 155.

Chapter Four

Risk, Expertise and Judicial Review: Untangling the 1970s

The world must go on and new environmental legislation must be carefully meshed with more traditional patterns of federal regulation. The decisional process for judges is one of balancing and it is often a most difficult task.¹

Judicial review is not a discrete exercise carried out in accordance with unwavering rules and assumptions. Nor has it only a limited legal impact. Rather, as the last two chapters have illustrated, scope of review doctrine is the product of many factors and conjectures about what is the role and nature of expert public administration. Likewise, scope of review doctrine does influence the substantive exercise of discretion by administrative agencies. The political context in which judicial review is carried out cannot be ignored and wider debates about the role of bureaucracy are influential. In judicial review, the rhetoric and realities of public administration must be reconciled to produce a workable and a legitimate outcome.

Thus we return, via an elliptical route, to the question stated in Chapter One - how do and should generalist courts carry out substantive review of expert agency decision making under scientific uncertainty? The question is made more difficult by the factors highlighted above. There is no single answer or set of perfect rules lurking undiscovered. The appropriate line of inquiry is not an endless search for a universal formula or a judicial mantra. Rather what is required is an understanding of how doctrine interacts with assumptions about the role of public administration.

¹ *Aberdeen & Rockfish Railway Company v. Students Challenging Regulatory Agency Procedures* 409 US 1207, 1218 (1972) per Chief Justice Burger.

What is clear from the last chapter is that while the deliberative paradigm is a more legitimate basis for risk regulation, the rationalist paradigm has underpinned judicial review and thus risk regulation itself.

This and the next chapter are an exploration of how the courts have come to carry out scope of review in the way they have. This chapter is an analysis of case law up until 1980. The 1970s was a period in which judicial review doctrine was the focus of a confused and complex debate in which the judiciary rarely spoke with one voice. Some judges were acutely aware that risk regulation should be carried out by a deliberative expert administration yet a number of interrelated issues were influential in promoting the rationalist paradigm of expertise. These included the growing unpopularity of adjudication as a means of administrative decision making, the baffling new legislative schemes which included explicit provisions for judicial review, and the debate about the nature of hard look review which occurred in the District of Columbia (D.C) Circuit. Thus, the rationalist paradigm was the product of a series of disjointed narratives rather than a categorical choice based on an analysis of what should be the role and nature of expert public administration in this area.

It is important to remember that the focus of analysis here is not on whether the courts or agencies favoured either industry or environmental groups in making their decisions. Scope of review doctrine has been utilised with equal success by both sides of the environmental debate.² Nor is the analysis here one about ideology. Judges Leventhal, Bazelon, Skelly Wright and Wald were all Democratic

appointees and yet their approach to judicial review doctrine was diverse. This analysis is rather an exploration of how courts defined what was a legitimate exercise of expert discretion. To that end the focus of this chapter is the judicial review of agencies whose responsibility was risk regulation. Cases involving the National Environmental Protection Act (NEPA) are not directly relevant here because that Act required agencies with other mandates to consider environmental impacts.³ In contrast, the focus here is on understanding how courts perceived the expertise of agencies whose core function was risk regulation.

1. New Partnerships: Judicial Review and Risk Regulation

The creation of risk regulation agencies came at a time in which the role of public administration in the United States was ambiguous. That ambiguity, as we saw in the last chapter, translated into a myriad of institutional structures and a lack of clarity over what should be the task of these new agencies. It also resulted in confusion over what should be the role of courts in carrying out judicial review. The courts perceived, whether rightly or wrongly, that their task was a new one.⁴ The aim of regulation was a broad based social goal and the agencies entrusted with the task were experimental science bureaucracies.⁵ The new risk regulation agencies, however, were a logical progression from past government institutions and, while there was an emphasis on the problems of scientific uncertainty and the

² Rodgers (1979) at 706.

³ See Leventhal (1974) at 515 for a discussion of the difference between the two.

⁴ *EDF v. Ruckelshaus* 439 F.2d 584, 597 (D.C. Cir. 1971) and *Ethyl Corp. v. EPA* 541 F.2d 1, 6 (D.C. Cir. 1976) (The *Ethyl* case). McGarity (1979) at 750 argued that the old administrative law would do little to assist the agencies in their task.

polycentric nature of decisions, the fundamental task of the court remained – the judicial review of expert public administration decision making in circumstances of scientific uncertainty. As illustrated in Chapter Three there was little agreement over what was the exact status of these new agencies. Moreover, there was a desire in some quarters to repudiate the concept of New Deal expertise as it had seemingly resulted in agency capture and inertia.⁶ Confusion and distrust are hallmarks of this period.

The rhetoric of the early 1970s was that agencies and courts were in a ‘partnership’ to ensure reasoned and reasonable decision making.⁷ This new partnership was between agencies and the Federal Court of Appeals and in particular the D.C. Circuit. The growth in litigation, the reality that many cases turned on their facts, and the case overload of the Supreme Court resulted in few decisions in this area going on appeal. Moreover, a number of statutes only allowed appeals to the D.C. Circuit⁸ and the majority of its business was dedicated to administrative law matters.⁹ A large number of those cases were concerned with judicial review of expert decision making in circumstances under scientific uncertainty. D.C. Circuit judges such Leventhal, Bazelon, Skelly Wright,

⁵ Leventhal (1974) at 510 and Yellin (1983) at 1302.

⁶ Ackerman & Hassler (1981) at 7.

⁷ Shapiro (1968) at 12; Scalia (1978) at 401; McGarity (1979) at 797; *Greater Boston Television Corp. v. FCC* 444 F.2d 841, 850 (D.C. Cir. 1970) (The *Greater Boston* case); *Associated Industries of New York Inc. v. US Dept. of Labour* 487 F.2d 342, 354 (5th Cir. 1973) (The *Associated Industries* case); and *Industrial Union Dept, AFL-CIO v. Hodgson* 499 F.2d 467, 469 (D.C. Cir. 1974) (The *Hodgson* case).

⁸ Clean Air Act 42 USCA §7607(b)(1); Safe Drinking Water Act 42 USCA §300j-7(a)(i); and Solid Waste Disposal Act 42 §6976(a)(1).

⁹ Bazelon (1977) at 817 noting that during that time judicial review took up 2/3 of their caseload.

McGowan and Wald, writing both in their judicial and extra judicial capacity, were all influential in directing the approach to judicial review.¹⁰

More than ever, the courts and agencies were perceived to be working as ‘collaborative instrumentalities’¹¹ towards a common goal of good administration and environmental protection.¹² Under this model, the great advantage of agencies was the expertise they could offer to the administrative process. Such expertise however, could result in a loss of perspective about what was the larger role of an agency in preserving the public interest.¹³ Courts, theoretically had a wise and generalist understanding of what was a legitimate exercise of agency discretion and in carrying out judicial review could apply it to decision making. The simplicity of this affiliation hid its major flaw. Central to this relationship needed to be some understanding of what was the nature and role of expert administration. No uniform theory was forthcoming.

Moreover, the appealing rhetoric of partnership, teamed as it was with statements that the role of the court was to ensure ‘reasonable’ and legal’ decision making¹⁴ did little to elucidate what should be the nature of the court’s task. In

¹⁰ For *some* extra judicial writings of this group see: Leventhal (1974); Bazelon (1977); McGowan (1977); Wright (1974); Wald (1997); Wald (1992); and Wald (1994).

¹¹ Leventhal (1974) at 512. For earlier discussion of this partnership see *US v. Morgan* 307 US 183, 191 (1939). Also see *Far East Conference v. USA* 342 US 570, 575 (1952)

¹² *EDF v. Ruckelshaus* 439 F.2d 584, 597 (D.C. Cir. 1971).

¹³ Shapiro (1968) at 52.

¹⁴ *Certified Colour Manufacturers Association v. Matthews* 543 F.2d 284, 293 (D.C. Cir 1976)(The *Certified Colour* case); *Lead Industries Association Inc v. EPA* 647 F.2d 1130, 1145 (D.C. Cir. 1980)(The *Lead Industries* case); *Ethyl* at 34; *EDF v. Costle* 657 F.2d 275, 283 (D.C. Cir. 1981); See *Florida Peach Growers Association v. US Dept. of Labour* 489 F.2d 120, 127 (5th Cir. 1974) (The *Florida Peach* case); *Associated Industries* at 351; *Hodgson* at 475; *Society of Plastics Industry Inc. v. OSHA* 509 F.2d 1301 (2nd Cir.

particular, it provided little guidance to the courts in how they should walk the precarious line between deference and vigilance.¹⁵ Thus for example, in applying the arbitrary and capricious test the courts noted that they should not substitute judgement¹⁶ but at the same time they should engage in a ‘searching and careful standard of review’ in which any relevant ‘clear error of judgement’ would be a reason for remand.¹⁷ Scope of review was perceived as ‘narrow’¹⁸ and agency action presumed valid¹⁹ but courts could not merely ‘rubber stamp’ agency decision making.²⁰ Rather they should ensure an agency explained its rationale by fully explicating ‘its course of inquiry, its analysis and its reasoning’.²¹ This included the agency establishing that there was a ‘rational connection between the

1975)(*The Society of Plastics* case); and *International Harvester v. Ruckelshaus* 478 F.2d 615,643 (D.C. Cir. 1973)(*The International Harvester* case); *National Lime Association v. EPA* 627 F.2d 416, 430 (D.C. Cir 1980) (*The National Lime* case); *South Terminal Corp v. EPA* 504 F.2d 646, 655 (1st Cir. 1974) (*The South Terminal* case); *Small Refiner Lead Phase Down Taskforce v. EPA* 705 F.2d 506, 521 (D.C. Cir. 1983) (*The Small Refiner* case); *Sierra Club v. EPA* 540 F.2d 1114, 1121 (D.C. Cir. 1976); and *Reynolds Metals Co. v. EPA* 760 F.2d 549, 558 (4th Cir. 1985) (*The Reynolds* case).

¹⁵ Skelly Wright (1974) at 378; Wald (1997) at 231; Leventhal (1974) at 511; *Hercules Inc v. EPA* 598 F.2d 91,115 (D.C. Cir. 1978) (*The Hercules* case); *Reynolds* at 558; and *Hodgson* at 476.

¹⁶ *Tanner’s Council of America Inc v. Train* 540 F.2d 1188, 1191 (4th Cir. 1976) (*The Tanner’s Council* case); and *South Terminal* at 671.

¹⁷ *South Terminal* at 655; *Sierra Club v. EPA* 540 F.2d 1114, 1124 (D.C. Cir. 1976); *Small Refiner* at 520.

¹⁸ *Sierra Club v. EPA* 540 F.2d 1114, 1124 (D.C. Cir. 1976); and *Motor Vehicles Manufacturers Association v. State Farm Mutual Automobile Insurance Company* 463 US 29,41 (1983) (*The State Farm* case).

¹⁹ *Certified Colour* at 293; *Lead Industries* at 1145; *EDF v. Costle* 657 F.2d 275, 283 (D.C. Cir. 1981); and *Reynolds* at 558.

²⁰ *Ethyl* at 34; *EDF v. Costle* 657 F.2d 275, 283 (D.C. Cir. 1981); and *Wisconsin Electric Power Co. v. Reilly* 893 F.2d 901, 907 (7th Cir. 1990).

²¹ *National Lime* at 433; *Tanner’s Council* at 1191 and *International Harvester* at 629, 648.

facts found and the choices made'.²² The substantial evidence test was described in similarly opaque terms.²³ As is illustrated below, the relationship between the two tests also became very unclear.²⁴ Some saw them as conceptually distinct while others viewed them as synonymous.²⁵

The task was made even more complex by the nebulous nature of the legislation which while requiring the courts to take on a more intrusive role did little to draw the definite boundaries of agency authority. McGowan noted:

It is as if sensitivity to the fact that it has failed to define grants of authority with precision has prompted Congress to rely on the courts to keep the delegates within proper bounds in their execution of the trusts reposed in them.²⁶

Out of the jumble of legislative mandates the courts were to come to some understanding of what was an agency's task. This was not a simple case of pinpointing their statutory goal but rather a requirement that before judicial review could be carried out some assumptions would need to be made about the role and nature of these new expert administrative agencies.

²² *EDF v. Costle* 657 F.2d 275, 283 (D.C. Cir. 1981); *National Lime* at 433; *Lead Industries* at 1145; and *South Terminal* at 671.

²³ *Hercules* at 107; *Ausimont USA Inc v. EPA* 838 F.2d 93, 96 (3rd Cir. 1988); *EDF v. EPA* 598 F.2d 62, 90 (D.C. Cir. 1978); *Corrosion Proof Fittings v. EPA* 947 F.2d 1201, 1213 (5th Cir. 1991) (The *Corrosion Proof* case); and also see generally the discussion concerning OSHA.

²⁴ Leventhal (1974) at 540.

²⁵ For discussions of the confusion between the two see *Florida Peach* at 127 and *Associated Industries* at 349.

²⁶ McGowan (1977) at 1124.

1.1 The Conundrum Revisited

The question stated in Chapter One had two separate but interrelated parts. First, how should courts judicially review *expert* decision making and secondly how should they scrutinise the *evidentiary* basis of the decision. In the pre Administrative Procedure Act (APA) period, scope of review doctrine was primarily driven by judicial understandings of what was the nature of expert public administration. With little legislative intervention and with adjudication as the main form of agency decision making the courts were free to shape scope of review as they wished. After the APA however, matters were not so clear.

By the early 1970s, these two questions had become entangled in four interrelated but conceptually distinct narratives. Each of these narratives pertained to the nature of good public administration but were often quite technical in nature. All of these must be taken into account if one is to understand how and why scope of review doctrine developed the way it did during the 1970s. The first of these narratives was seen in Chapter Two and was concerned with what should be the role of adjudication and rulemaking in federal government. This directly influenced answers to the question what should be the nature of the evidentiary basis of a decision. During this period the definitions of what was a ‘hearing’ and what was an ‘administrative record’ were up for reanalysis.²⁷ The second narrative was that the courts did perceive the task of risk regulation agencies as a deliberative one and shaped their review accordingly. Scientific uncertainty and the polycentric nature

²⁷ *US v. Florida East Coast Railway Company* 410 US 224 (1973) (The *Florida East Coast* case) and *Citizens to Preserve Overton Park Inc. v. Volpe* 401 US 402 (1971) (The *Overton Park* case).

of risk disputes required that agencies undertake a problem solving exercise with a subtle appreciation of the broader socio-political context. This vision however, did not translate into a workable and durable framework for scope of review doctrine for the reasons discussed below. The third important narrative was that new legislation defined rulemaking procedure and standards of review. Courts were required to use these legislative schemes as starting points for judicial review but these provisions had very little theoretical coherence and this mismatch resulted in confusion over what was the task of the agency and thus the role of the court. The fourth and final narrative which impacts directly on assumptions of expertise was the debate about ‘hard look review’ which was carried on in the D.C. Circuit between Judge Leventhal and Chief Judge Bazelon.

These four different narratives will be analysed in turn. While discussed in sequence, all four debates were being carried on in the courts at the same time. Thus while the courts were wrestling with new legislative schemes they were also seeking to take a ‘harder look’ as well as promote the precautionary aims of the legislation. The doctrinal confusion of this period should not be underestimated and it is one of the reasons why a coherent debate in the 1970s was not forthcoming.

1.2 A Case Study: Judicial Review of OSHA Rulemaking

The case law in relation to judicial review of decision making under scientific uncertainty is simply too large to be dealt with comprehensively and because of this only the main and other illustrative cases are discussed here. It is useful however, besides this more general analysis, to explore the case law in relation to one piece of legislation in detail. By doing this an appreciation of both

the impact of a particular legislative scheme as well as the evolutionary nature of judicial review can be gained. Judicial review of rulemaking by the Occupational Safety and Health Administration (OSHA) under the Occupational Safety and Health Act (OSH Act) represents an important example of the way in which the courts have tackled the problems of judicially reviewing decision making under scientific uncertainty. Analysis of the OSH Act is attractive for a number of reasons. The Act includes specific provisions for 'toxic materials' as well as an explicit judicial review scheme. Nearly every standard that OSHA has set has been challenged or partly challenged in the courts. Moreover, the most important Supreme Court decision on judicial review of decision making under scientific uncertainty – *Industrial Union Department, AFL-CIO v. American Petroleum Institute*²⁸ (the *Benzene* decision) was in relation to the OSH Act. The case law has not remained static and the way in which scope of review doctrine was defined and applied in 1973 is not the same as in 1994.

Before analysing the case law, an understanding of the legislative scheme is required. The Occupational Safety and Health Act 1970, like other statutes at that time was the troubled product of factional politics and the legislative history of OSHA is a 'cryptic' one replete with substantial revisions and opposing amendments.²⁹ Many of those debates were directly concerned with what type of expert body OSHA should be.³⁰ OSHA, in the final statute, was given a general

²⁸ 448 US 607 (1980).

²⁹ 116 Congressional Record S 36387, 36,511, 37,317, 37,602, 41,755 and 42,235.

³⁰ 116 Congressional Record 36, 523-30 (October 13, 1970).

power to set occupational health and safety standards. A safety standard being defined as:

a standard which requires conditions, or the adoption or use of one or more practices, means, methods, operations or processes, *reasonably necessary* or appropriate to provide *safe or healthful employment and places of employment*.³¹

The terms in italics highlight the phrases which courts emphasised in the interpretation of the legislation. The phrase 'safe and healthful' is by no means determinate and the statute has been criticised as being a statute 'whose vague language at times seems to reflect more invocational rhetoric rather than measured legislative mandate'.³²

There were a number of different types of standards which OSHA could adopt. The first were national consensus standards which could be set under §655(a) of the Act. These were standards which incorporated past regulatory initiatives within two years of the passing of the OSH Act. OSHA, under §655(c) could also pass emergency temporary standards if there was a determination that employees were exposed to a 'grave danger'³³ from exposure. This was required to be followed up within six months by a permanent standard. The most important provision was §655(b) which set out the procedure for setting permanent standards. Standard setting for toxic materials, was dealt with separately under §655(b)(5).

That section states:

³¹ 29 USCA §652(8).

³² *United Steelworkers of America v. Marshall* 647 F.2d 1189, 1251 (D.C. Cir. 1980) (The *United Steelworkers* case).

³³ This phrase carries its own body of case law concerning its meaning. See *Florida Peach* at 124 and *Asbestos Information Association of North America v. OSHA* 727 F.2d 415, 422 (5th Cir. 1984)(The *Asbestos Information* case).

The Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, shall set the standard which most adequately assures, *to the extent feasible*, on the *basis of the best available evidence*, that *no employee will suffer material impairment of health* and functional capacity even if such employee has regular exposure to the hazard dealt with by such a standard for the period of his working life. Development of standards under this subsection shall be based on research, demonstrations, experiments and such information as may be appropriate. In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of standards and experience gained under this and other health and safety laws. Wherever practicable, the standard promulgated shall be expressed in terms of objective criteria and of the performance desired.

This separate provision for toxic materials was due to the realisation that there were special problems with setting standards for toxic materials.³⁴ The Congressional debates at the time reveal an acute awareness of the problems of scientific uncertainty and this section reflects this³⁵ through it explicitly requiring that standards should be based on *evidence*, *experience* and a *policy* of worker protection. Original proposals to simply require labels for toxic materials had been rejected because it was believed that legislation should promote research and a precautionary approach to regulation.³⁶

This legislative framework did not yield easily to a consistent interpretation.³⁷ In particular its lack of an ‘intelligible legislative mandate’³⁸ made it uncertain how phrases such as ‘feasible’ and ‘safe and healthful’ should be

³⁴ *National Grain and Feed Association v. OSHA* 866 F.2d 717, 731 (5th Cir. 1989) (The *National Grain* case).

³⁵ Scordo (1994) at 168-178.

³⁶ 116 Congressional Record 37326 (Nov. 16, 1970).

³⁷ See *Builders and Construction Trades Department v. Brock* 838 F.2d 1258 (D.C. Cir, 1988) (The *BCT* case); *Hodgson* at 469 and *American Textile Manufacturers v. Donovan* 452 US 488, 508 (1981) (The *Cotton Dust* case).

³⁸ *International Union, UAW v. OSHA* 37 F.3d 665, 668 (D.C. Cir. 1994) (The *Lockout/Tagout II* case).

interpreted. As well the toxic material section of §655(b)(5) and the definition of a standard in §652(8) are not well co-ordinated in their wording. The courts have interpreted §655(b)(5) as applying to risks

which are frequently undetectable to the casual observer because they are subtle or develop slowly or after latency periods.³⁹

In cases where both sections apply the courts have given primacy to §655(b)(5).⁴⁰

The rulemaking procedure under the OSH Act was hybrid. Thus while essentially informal it allowed for public hearings and consultation with advisory committees.⁴¹ This is consistent with other risk regulation statutes.⁴² The standard of judicial review however was as follows:

The determinations of the Secretary shall be conclusive if supported by substantial evidence in the record as a whole.⁴³

This standard of review had of course since the APA been closely tied to adjudicatory procedure and in the view of many was the ‘handmaiden of formal procedures’.⁴⁴ This pairing, as we shall see below was not a unique paradox in legislation during this period and undoubtedly confused the court’s role even more. Nor did the courts in carrying out judicial review describe it in terms which would elucidate what was either their or the agency’s role. Thus they describe their task as

³⁹ *International Union, UAW v. OSHA* 938 F.2d 1310, 1313 (D.C. Cir. 1991) (the *Lockout/Tagout I* case). Also see *United Steelworkers* at 1245.

⁴⁰ The *Cotton Dust* case.

⁴¹ §655(b)(2)-(4).

⁴² Reich (1966) at 1241.

⁴³ §655(f).

⁴⁴ Note (1974) at 462.

being concerned with ensuring articulated and rational reasoning.⁴⁵ ‘reasonableness’⁴⁶ and with providing a ‘careful check on the agency’s determination’ without substituting the court’s judgement for that of the agency.⁴⁷ As one judge noted the ‘court’s task defies generalised description’.⁴⁸

Despite these problems judicial review under the OSH Act developed into a two step process. First the courts would scrutinise the standard so as to establish whether it was necessary to ensure ‘safe or healthful employment’. Second, they would be concerned to ensure that the proposed standard was economically and technologically feasible. Both these requirements could be found in §655(b)(5).

Below is a table of the cases which have been decided in relation to the standard setting provisions of the OSH Act. These cases will be discussed in this and the next chapter. As can be seen the analysis extends beyond challenges to standard setting under §655(b)(5).⁴⁹ This is because the discussion of the scope of review in these other cases is of assistance. A number of things should be noted from the table. First, OSHA has attempted to regulate a wide variety of substances in numerous contexts. Blood borne pathogens have very little in common with the

⁴⁵ *EDF v. Ruckelshaus* 439 F.2d 584, 597-8 (D.C. Cir. 1971); *Baltimore & Ohio Railway Company v. Aberdeen & Rockfish Railway Company* 393 US 87, 92 (1968); and *FPC v. US Pipeline Co.* 393 US 71, 72 (1968). Also see *Chrysler Corp. v. Dept. Of Transportation* 472 F.2d 659, 665 (6th Cir. 1972) (The *Chrysler* case) where the court stated that the ‘rational consideration’ test amounted to no review at all.

⁴⁶ *Associated Industries* at 353; *Society of Plastics Industry Inc. v. OSHA* 509 F.2d 1301, 1304 (2nd Cir. 1975) (The *Society of Plastics* case); *Hodgson* at 475; *National Cottonseed Products Association v. Brock* 825 F.2d 482, 484 (D.C. Cir. 1987) (The *National Cottonseed* case); and *United Steelworkers* at 736.

⁴⁷ 649.

⁴⁸ *Society of Plastics* at 1304.

minimum number of lavatories or exposure to airborne benzene. A conception of OSHA’s expertise in a narrow rationalist sense is not easily reconcilable with this broad ranging power. Second, no pattern of decisions upholding or remanding standards is discernible. Nor is there any consistent trend of the courts favouring industry or worker protection. What is noticeable is the fact that in the 1970s decisions were remanded on the grounds of inadequate reasons while in the 1980s remand was on the basis of substantial evidence.

Table 3 – Judicial Review Cases Concerning OSHA Standard Setting

Case Name ⁵⁰	Section ⁵¹	Subject Matter	Result Pro Worker Protection (W) Pro Industry (I) ⁵²
<i>Dry Colour Manufacturers Association Inc. v. Department of Labour</i> 486 F.2d 98 (3rd Cir. 1973) (The <i>Dry Colour</i> case)	655(c)(1)	14 suspected carcinogens	Vacated and remanded in relation to two chemicals
<i>Associated Industries of New York Inc. v. US Dept. of Labour</i> 487 F.2d 342 (5th Cir. 1973). (The <i>Associated Industries</i> case)	652(8)	Minimum Number of Lavatories.	Remanded and requirement for greater articulation of Issues.
<i>Florida Peach Growers Association v. US Dept. of Labour</i> 489 F.2d 120 (5th Cir. 1974) (The <i>Florida Peach</i> case)	655(c)(1)	Organophosphorous pesticide residues and farm workers	Standard vacated as no substantial evidence. I
<i>Industrial Union Dept. AFL-CIO v. Hodgson</i> 499 F.2d 467 (D.C. Cir. 1974) (The <i>Hodgson</i> case)	655(b)(5)	Asbestos	Remand for reclassification.
<i>Synthetic Organic Chemical Manufacturers Association v. Brennan</i> 503 F.2d 1155 (3rd Cir. 1974) (The <i>Synthetic I</i> case)	655(b)(5)	Ethylemine	Remanded because of lack of notice given to research labouratory exceptions.
<i>Synthetic Organic Chemical Manufacturers Association v. Brennan</i>	655(b)(5)	14 carcinogens	Partly remanded because of failure to follow notice and comment

⁴⁹ Although it does not include all those not decided under §655(b)(5). *Forging Industry Association v. Secretary of Labour* 773 F.2d 1436 (4th Cir. 1985).

⁵⁰ Supreme Court cases are in bold type.

⁵¹ §655(b)(5) is the toxic materials provision; §655(c)(1) the emergency temporary standard provision; §652(8) refers to general worker protection standards; and §655(b)(7) is the labelling provision.

⁵² The cases not marked are those in which the decision cannot be easily found to favour either group.

506 F.2d 385 (3rd Cir. 1974) (The <i>Synthetic II</i> case)			procedures
<i>Society of Plastics Industry Inc. v. OSHA</i> 509 F.2d 1301 (2nd Cir. 1975) (The <i>Society of Plastics</i> case)	655(b)(5)	Vinyl chloride	Affirmed W
<i>American Federation of Labour v. Brennan</i> 530 F.2d 109 (3rd Cir. 1975). (The <i>Brennan</i> case)	652(8)	'No hands in dies' – mechanical power presses	Remanded for inadequate reasons for revocation of the standard. W.
<i>American Iron & Steel Institute v. OSHA</i> 577 F.2d 825 (3rd Cir. 1978) (The <i>American Iron and Steel</i> case)	655(b)(5)	Coke over Emissions	Affirmed W
<i>American Petroleum Institute v. OSHA</i> 581 F.2d 493 (5th Cir. 1978) (The <i>American Petroleum</i> case)	655(b)(5)	Benzene	Vacated because no substantial evidence. I
<i>AFL-CIO v. Marshall</i> 617 F.2d 636 (D.C. Cir. 1979) (The <i>Marshall</i> case)	655(b)(5)	Cotton Dust	Remanded because OSHA did not have substantial evidence of economic feasibility in cotton seed industry.
<i>Industrial Union Department, AFL-CIO v. American Petroleum Institute</i> 448 US 607 (1980) (The <i>Benzene</i> decision)	655(b)(5)	Benzene	Judgement of 5th Cir. affirmed. Held that OSHA needed to make a finding of 'significant risk' before regulating and that any standard needed to be supported by a body of 'reputable scientific thought'. I
<i>Texas Independent Ginners Association v. Marshall</i> , 630 F.2d 398 (5th Cir. 1980) (The <i>Texas Independent Ginners</i> case)	655(b)(5)	Cotton dust in cotton gins	Vacated and remanded for lack of substantial evidence I
<i>ASARCO Inc v. OSHA</i> 647 F.2d 1 (9th Cir. 1981)	655(b)(5)	Airborne Arsenic	Remanded on the ground that needed to make finding of significant risk but permanent standard kept in place.
<i>United Steelworkers of America v. Marshall</i> 647 F.2d 1189 (D.C. Cir. 1980) (The <i>United Steelworkers</i> case)	655(b)(5)	Lead standard	Partly remanded.
<i>American Textile Manufacturers v. Donovan</i> 452 US 488 (1981) (The <i>Cotton Dust</i> case).	655(b)(5)	Cotton Dust	Affirmed except in relation to wage guarantee requirement in standard.
<i>Public Citizen Health Research Group v. Auchter</i> 702 F.2d 1150 (D.C. Cir. 1983) (The <i>Ethylene Oxide</i> case)	655(b)(5)	Ethylene Oxide	OSHA required to expedite permanent rulemaking. W
<i>Asbestos Information Association of North America v OSHA</i> 727 F.2d 415 (5th Cir. 1984) (The <i>Asbestos Information</i> case)	655(c)(1)	Asbestos	Stayed because the risk was not 'grave'. I
<i>ASARCO v. OSHA</i> 746 F.2d 483 (9th Cir. 1984) (The <i>ASARCO</i> case)	655(b)(5)	Airborne arsenic	Affirmed
<i>United Steelworkers of America v. Auchter</i> 763 F.2d 728 (3rd Cir. 1985)	655(b)(7)	Hazard Communication Standard	Partly Affirmed.
<i>Public Health Research Group v. Tyson</i> 796 F.2d 1479 (DC Cir. 1986) (The <i>Tyson</i> case)	655(b)(5)	Ethylene Oxide	Partly remanded on the ground that OSHA did not have substantive evidence to support their decision not to issue a short term exposure

			limit. W
<i>United Steelworkers of America v. Pendergrass</i> 819 F.2d 1263 (3rd Cir. 1987)	655(b)(7)	Hazard Communication Standard	Order to publish standard within 60 day time limit. W.
<i>National Cottonseed Products Association v. Brock</i> 825 F.2d 482 (DC Cir. 1987) (The <i>National Cottonseed</i> case)	655(b)(5)	Medical surveillance for Cotton Dust Workers	Affirmed W
<i>Builders and Construction Trades Department v. Brock</i> 838 F.2d 1258 (DC Cir. 1988) (The <i>BCT</i> case)	655(b)(5)	Revised Asbestos Standard	Remanded on ground that the ban on spraying asbestos products was not supported by substantial evidence. I
<i>United Steelworkers of America v. Pendergrass</i> 855 F.2d 108 (3rd Cir. 1988)	655(b)(7)	Hazard Communication Standard	Standard did not come under Paperwork Reduction Act.
<i>Associated Builders and Contractors Inc v. Brock</i> 862 F.2d 63 (3rd Cir. 1988)	655(b)(7)	Hazard Communication Standard	Affirmed W
<i>National Grain and Feed Association v. OSHA</i> 866 F.2d 717 (5th Cir. 1989) (The <i>National Grain</i> case)	652(8)	Fires and explosions in grain handling facilities	Remanded because of economic feasibility findings.
<i>International Union, UAW v. Pendergrass</i> 878 F.2d 389 (DC Cir. 1989) (The <i>Formaldehyde</i> case)	655(b)(5)	Formaldehyde	Affirmed but remanded so OSHA could calculate the risk of cancer more accurately and to reconsider its requirement that medical surveillance equipment was not required. W
<i>International Union, UAW v. OSHA</i> 938 F.2d 1310 (D.C. Cir. 1991) (The <i>Lockout/Tagout I</i> case)	652(8)	Lockout and tagout energy isolating devices	Remanded on the ground that OSHA's finding of feasibility were unreasonable. I
<i>American Iron and Steel Institute v. OSHA</i> 939 F.2d 975 (D.C. Cir. 1991) (The <i>United Steelworkers II</i> case)	655(b)(5)	Airborne Lead ⁵³	Upheld except for finds of economic feasibility in relation to the brass and bronze ingot industry.
<i>AFL-CIO v. OSHA</i> 965 F.2d 962 (11th Cir. 1992) (The <i>Air Contaminants</i> case)	655(b)(5)	Generic Air Contaminants Standard	Vacated and remanded for lack of substantial evidence I
<i>American Dental Association v. Martin</i> 984 F.2d 823 (7th Cir. 1993) (The <i>American Dental</i> case)	655(b)(5)	Blood Borne pathogens	Remanded in relation to home care workers I
<i>Colour Pigments Manufacturers Association v. OSHA</i> 16 F.3d 1157 (11th Cir. 1994) (The <i>Colour Pigments</i> case)	655(b)(5)	Cadmium	Remanded in relation to dry colour formulator industry because of lack of substantial evidence. I
<i>International Union, UAW v. OSHA</i> 37 F.3d 665 (D.C. Cir. 1994) (The <i>Lockout/Tagout II</i> case)	652(8)	Lockout/Tagout	Affirmed
<i>Alabama Power Co. v. OSHA</i> 89 F.3d 740 (11th Cir. 1996) (The <i>Alabama Power</i> case)	652(8)	Apparel for Electrical Workers	Affirmed W

⁵³ Case following remand in *United Steelworkers of America v. Marshall* 647 F.2d 1189 (D.C. Cir. 1980).

2. The Rise of Rulemaking and the Decline of Adjudication

In passing the new risk regulation statutes, Congress explicitly required these agencies to proceed by informal rulemaking, albeit with extra procedural requirements. Informal rulemaking consists of a notice of proposed rulemaking, a period for comment and then the publication of the final rule.⁵⁴ On the whole, most of the extra procedural requirements directed agencies to conduct public hearings and to consult advisory committees.⁵⁵ This Congressional hybrid rulemaking regime can be seen as the product of two different considerations.

First, after the APA there had been a growth in the popularity of informal rulemaking. This was accompanied by an acknowledgement that adjudication or formal rulemaking was not the most practical way to administer complex regulatory schemes.⁵⁶ Adjudication was viewed as an illogical and ad hoc method to develop policies in the public interest. Deciding cases in relation to their individual circumstances not only stunted the development of a coherent concept of the 'public interest' but also created the potential for the greater abuse of power. Rulemaking, in contrast was more in accordance with the rule of law.⁵⁷ Likewise, trial process was originally designed to protect individual interests. The growth of

⁵⁴ 5 USCA §553.

⁵⁵ OSH Act 29 USCA §655(a)(5); Federal Water Pollution Control Act 33 USCA §1317(a)(2); and Clean Air Act 42 USCA §7607(d)(5). See Chapter Three.

⁵⁶ Robinson (1970) at 485.

⁵⁷ See Davis (1965) for a general discussion.

public interest regulation however, resulted in public law not only being concerned with private interests but also with broader communitarian concepts of the public interest⁵⁸ The extension of standing to public interest groups being another example of this trend.⁵⁹ Methods which only protected private interests were viewed as deleterious to the development of a broader conception of public law.

Formal rulemaking or rulemaking ‘on the record’⁶⁰ was also rarely used. This was rulemaking which utilised trial procedure. In a famous case of the 1960s it had taken ten years for the Food and Drug Administration to pass a standard which defined ‘peanut butter’ by the means of formal rulemaking.⁶¹ In cases where the evidence obtainable was endless and the parties involved numerous, adjudication and formal rule making were made nearly unworkable.⁶² There were no obvious limits on what evidence should be introduced and the progression of formal hearings could easily be impeded by individual parties introducing irrelevant evidence.⁶³ For these reasons, adjudication and formal rulemaking were not encouraged in the administrative process. To that end the Supreme Court read down legislative provisions so that only in explicit cases would formal adjudicatory rulemaking apply.⁶⁴

⁵⁸ Reich (1966) at 1241.

⁵⁹ See Sunstein(1988a) arguing that public law will not be truly public law until it no longer rests on private law concepts of injury. Also see Chayes (1976) discussing the drawbacks of the bipolar model of adjudication.

⁶⁰ 7 USCA §553(c) and §556, 557.

⁶¹ Pederson (1975) at 44.

⁶² Chayes (1976); and Reich (1966) at 1241.

⁶³ Reich (1966) at 1241 and Robinson (1970) at 524.

⁶⁴ *Florida East Coast*.

The second factor was that informal rulemaking had long been recognised as an ideal vehicle for the consideration of policy, legislative facts and decisions based on experience.⁶⁵ In *Amoco Oil Co. v. EPA* (the *Amoco Oil* case) Skelly Wright noted that:

Looking to the future, and commanded by Congress to make policy, a rule-making agency necessarily deals less with 'evidentiary' disputes than with normative conflicts, projections from imperfect data, experiments and simulations, educated predictions, differing assessments of possible risks and the like. The process is *quasi*-legislative in character, and one will search it in vain for those intermediate 'findings' of fact which mark the midway point in an adjudicator's linear march from raw evidence to single ultimate conclusion.⁶⁶

Informal rulemaking had the advantage that it could allow the agency to focus on the issue directly at hand and create a forum in which the consideration of different viewpoints could be taken into account. Its emphasis was on deliberation not factual proof.⁶⁷ When it did require the taking into account of facts those facts were legislative facts rather than adjudicative facts.⁶⁸ Or in other words, proof of them did not require a process of adjudication. Judge Rosenn in *American Iron and Steel Institute v. OSHA* (the *American Iron and Steel* case)⁶⁹ stated:

As is typical in the multifaceted character of judicial review of legislative standards resulting from informal rulemaking, we are concerned with intricate questions pertaining to fact-finding, policy making, and statutory

⁶⁵ Fuchs (1965) at 788-90; *American Airlines Inc v. Civil Aeronautics Board* 359 F.2d 624, 633 (D.C. Cir 1966) (The *American Airlines* case); Nathanson (1978) at 205; Attorney General's Committee (1941) at 61; *Automotive Parts & Accessories Association v. Boyd* 407 F.2d 330, 338 (D.C. Cir. 1968); *Boating Industry Association v. Boyd* 409 F.2d 408, 411 (7th Cir. 1969); *National Asphalt Pavement Association v. Train* 539 F.2d 775, 783 (D.C. Cir. 1976) (The *National Asphalt* case); *Hodgson* at 474; *Hercules* at 118; Robinson (1970) at 486, 521; and Davis (1970) at 307.

⁶⁶ 501 F.2d. 722, 735 (D.C. Cir. 1974).

⁶⁷ See generally Wright (1974) at 380.

⁶⁸ Davis (1958) at §15.03. Although note in his 1970 supplement that he noted that the distinction was still not a clear one. Davis (1970) at 301.

⁶⁹ 577 F.2d 825, 831 (3rd Cir. 1978).

construction. The framework around which we must build our decision involves an examination of scientific facts, economic considerations and statutory markings.

Informal rulemaking was a means of making decisions on behalf of a whole community where the factors to be taken into account were complex. Moreover the decision was being made in a democratic context. Formal rulemaking, in contrast, was recognised as being a ‘thoroughly illogical vehicle for democratically weighting the views of interested parties’⁷⁰ and in some cases counter productive because it gave the impression of objectivity where none existed.⁷¹ Simply put, risk problems were too polycentric, too transdisciplinary and too value laden to be easily managed through an adjudicative process.⁷²

The sentiments identified above are clearly visible in the case law and are influential in directing judicial approaches in the area of risk regulation. What is important to remember is that the inclusion of informal rulemaking cannot be interpreted as an *unequivocal* Congressional indicator that administration was deliberative. The repudiation of adjudication was a rejection of a concept of public law merely dedicated to protecting individual interests. As such the trend towards rulemaking is not directly relevant to the nature of expert public administration. Yet at the same time, informal rulemaking was based on the assumption that the type of issues confronting risk regulators were not so much discrete scientific issues but rather vast sprawling problems which involved numerous factors,

⁷⁰ Wright (1974) at 379. Also see Williams (1976); McGarity (1979) at 750; Verkuil (1974) and Hamilton (1972).

⁷¹ Reich (1966) at 1236.

⁷² *Hercules* at 118; McGarity (1979) at 750; and Reich (1966) at 1229.

sometimes insufficient and conflicting evidence, and most importantly, policy judgement. This understanding is reflected in the early case law.

3. The Deliberative/Precautionary Approach to Judicial Review

The explicit requirement of informal rulemaking was not the only starting point for the courts in determining that administration in this area should be deliberative. They were strongly aware that problems could only be effectively dealt with by deliberative administration. This can be seen in their general description of the task of agencies. They stressed that risk regulation was an activity shrouded in scientific uncertainty which should be directed towards protecting both the environment and human health.⁷³ A common statement was that the task of risk regulation agencies was on the ‘frontiers of scientific knowledge’.⁷⁴ By this the courts not only meant that there were large data gaps (which they explicitly recognised)⁷⁵ but that the activities of the agencies could never be solely scientific. Evidence would often conflict;⁷⁶ modelling involved value choices;⁷⁷ and a uniform methodology for assessing many of these risks did not exist.⁷⁸ As one judge noted:

⁷³ *International Harvester* at 651 and *Leventhal* (1974) at 511.

⁷⁴ *Hodgson* at 474; *Hercules* at 107; *Reserve Mining Co. v. EPA* 514 F.2d 492, 519 (8th Cir. 1975) (The *Reserve Mining* case).

⁷⁵ *Reserve Mining* at 510; *EDF v. EPA* 465 F.2d 528, 535-6 (D.C. Cir. 1972); and *EDF v. EPA* 598 F.2d 62, 89 (D.C. Cir. 1978).

⁷⁶ *Ethyl* at 6, per Skelly Wright.

⁷⁷ *Small Refiner* at 535.

⁷⁸ *Hercules* at 107; *EDF v. EPA* 510 F.2d 1292, 1299 (D.C. Cir. 1975).

[S]peculation, conflicts in evidence and theoretical extrapolation typify every action.⁷⁹

Likewise courts were also aware of the epistemological limits of understanding or knowing about the natural world.⁸⁰ Moreover, many different disciplines could come to bear on a single decision.⁸¹ Risk regulation required the consideration of numerous polycentric factors. The social and economic context of risk regulation could not be ignored.⁸²

In light of all these factors risk regulation decision making required explicit consideration of policy and the exercise of judgement.⁸³ It was not a neat and orderly process but rather required a more complex approach to decision making.⁸⁴ It would also have to be an evolving and dynamic process that was flexible enough to take into account lessons learnt from experience as well as new scientific evidence.⁸⁵ Not surprisingly, such a form of decision making could not be easily captured by a uniform procedure. Nor could such predictive activities be achieved by basing decisions solely on scientific evidence.⁸⁶ Rather the task was a broader and more democratic one that required consideration of many factors and the utilisation of expert knowledge and experience which could not always be

⁷⁹ *Ethyl* at 24 per Skelly Wright.

⁸⁰ *International Harvester* at 643 per Bazelon; *Reserve Mining* at 514 discussing our lack of understanding concerning the ingestion of asbestos fibres. Also see *EDF v. EPA* 598 F.2d 62, 89 (D.C. Cir. 1978).

⁸¹ See the review of evidence in *Reserve Mining*. At 513 they stressed the importance of the agency having a 'broad understanding of the issue'.

⁸² *Overton Park* at 411.

⁸³ *National Asphalt* at 783; *Ethyl* at 20; *Amoco Oil* at 736; *EDF v. EPA* 598 F.2d 62, 82 (D.C. Cir. 1978); *Hercules* at 108; Bazelon (1977) at 822.

⁸⁴ *Weyerhaeuser Co. v. Costle* 590 F.2d 1011, 1029 (D.C. Cir. 1978) (the *Weyerhaeuser* case)

⁸⁵ *EDF v. EPA* 465 F.2d 528, 541 (D.C. Cir. 1972).

represented on the record.⁸⁷ Science had a role to play but in light of scientific uncertainty many decisions would need to be based on policy. Likewise, if decisions were being made in the public interest, participation by the public would have an important role to play. Agencies were problem orientated not science orientated. To that end, courts stressed the importance of not waiting for full scientific certainty and they argued that agencies should engage in preventative regulation.⁸⁸

It is tempting to see the demands for increased participation as a product of interest group pluralism.⁸⁹ The courts, however did not construe public administration as an arena in which bargains could be made between different interest groups and agencies were simply ‘umpires’.⁹⁰ Rather, agencies were perceived as guardians of the public interest.⁹¹ Judicial review was aiming to develop a ‘genuine dialogue’⁹² in which different views were balanced and the product of which was not simply a trade off between industry and the community.⁹³ Thus courts were concerned to ensure that the substance of consultation had effectively shaped the agency’s final decision and not just simply that they had taken different interests into account.

⁸⁶ Reich (1966) at 1242; Robinson (1970) at 494.

⁸⁷ Reich (1966) at 1248, 1255.

⁸⁸ *Ethyl* at 25 at *Reserve Mining* at 513.

⁸⁹ Stewart (1975).

⁹⁰ Rodgers (1979) at 717.

⁹¹ Bazelon (1977) at 831 and his general discussion in *NRDC v. Nuclear Regulatory Commission* 547 F.2d 633 (D.C. Cir. 1976)(The *Table S-3* case)

⁹² *International Harvester* at 651.

⁹³ *Ethyl* and *Table S-3*.

3.1 OSHA

Early judicial review of OSHA rulemaking is an example where the deliberative approach did affect the way in which scope of review was carried out. This was mainly because, unlike other statutes which constrained discretion through strict time limits and explicit goals, the power granted to OSHA was relatively open ended. The courts recognised that the task of OSHA lay on the ‘frontiers of scientific knowledge’ and therefore ‘explicit factual findings were not possible’.⁹⁴ In cases such as these administrators would rely heavily on policy, judgement and experience in making decisions.⁹⁵ Thus for example extrapolation from animal to humans was seen as a policy issue which was not required to be grounded in fact.⁹⁶ Moreover, the public interest of worker protection would be of overriding importance in making a decision.⁹⁷ The courts stressed that the inclusion of advisory committees and the public participation requirements were also important in an area with so much scientific uncertainty.⁹⁸

The court shaped their review accordingly and they stressed that the informal rulemaking provisions of the OSH Act were an important signifier that

⁹⁴ *Hodgson* at 474; *United Steelworkers* at 1206; and *AFL-CIO v. Marshall* 617 F.2d 636, 650-1 (D.C. Cir. 1979) (The *Marshall* case).

⁹⁵ *Hodgson* at 474; *American Iron & Steel Institute v. OSHA* 577 F.2d 825, 831 (3rd Cir. 1978) (The *American Iron and Steel* case); and *Synthetic Organic Chemical Manufacturers Association v. Brennan* 503 F.2d 1155, 1159 (3rd Cir. 1974) (The *Synthetic I* case).

⁹⁶ *Synthetic I* at 1159-60; *Society of Plastics* at 1308; and *Hodgson* at 474.

⁹⁷ *Hodgson* at 475.

⁹⁸ *Synthetic Organic Chemical Manufacturers Association v. Brennan* 506 F.2d 385, 389 (3rd Cir. 1974) (The *Synthetic II* case).

Congress did not require methodological rigour.⁹⁹ An example of the general approach of courts to the OSH Act is in *Society of Plastics Industry Incorporated v. OSHA* (the *Society of Plastics* case).¹⁰⁰ The court upheld a standard relating to vinyl chloride even though there was *no proof* to justify a standard set at such a low level (1 ppm). In actual fact there was *no evidence* as to its safety at that level and in light of the possible consequences of exposure OSHA had set the lowest extent feasible.¹⁰¹ Judge Clark, in upholding the standard, noted that the aim of the OSH Act was the protection of human lives and that this should be the driving rationale of any rulemaking process. Moreover he commented,

..and though the factual finger points, it does not conclude. Under the command of OSHA, it remains the duty of the Secretary to act to protect the working man, and to act even in circumstances where existing methodology or research is deficient.¹⁰²

Thus in cases where there could not be accurate calculation the courts construed the boundaries of the discretion in accordance with the public interest that agencies such as OSHA were seeking to protect.¹⁰³

The statutory hurdle of 'feasibility' as stated in §655(b)(5) was also interpreted broadly.¹⁰⁴ It was quickly established that feasibility could be divided into separate questions of technological and economic feasibility.¹⁰⁵ The

⁹⁹ *Hodgson* at 475; *Associated Industries* at 344-5; and *American Federation of Labour v. Brennan* 530 F.2d 109, 115-6 (3rd Cir, 1975) (The *Brennan* case).

¹⁰⁰ 509 F.2d 1301 (2nd Cir. 1975).

¹⁰¹ 1308.

¹⁰² *Ibid.*

¹⁰³ *Hodgson* at fn 18 referring to the rate making case of *In Re Permian Basin Rate Cases* 390 US 747 (1968).

¹⁰⁴ This requirement arose out of the wording of §655(b)(5) of the OSH Act.

¹⁰⁵ *Hodgson* at 477.

requirement of feasibility was seen as a means of ensuring that the health goals of the Act were tempered with practical considerations.¹⁰⁶ However those considerations were not to overrun the prime issue of worker protection and the courts construed the Act as a ‘technology forcing’ act.¹⁰⁷ So as long as technology at least ‘looms on today’s horizon’ a standard requiring the use of that technology would be technologically feasible.¹⁰⁸ Likewise economically feasibility did not mean that a standard could not be financially ‘burdensome’ on industry as long as it did not create ‘massive dislocation’.¹⁰⁹

The evidentiary burden in these cases was not a large one.¹¹⁰ In *Synthetic Organic Chemical Manufacturers Association v. Brennan*¹¹¹ (the *Synthetic I* case) the 3rd Circuit held that two animal studies amounted to substantial evidence.¹¹² Moreover in *Industrial Union Department, AFL-CIO v. Hodgson*¹¹³ (The *Hodgson* case) the D.C. Circuit held that while the expert opinions of the National Institute of Occupational Safety and Health (NIOSH) were relevant they did not need to be directly followed.¹¹⁴ OSHA should exercise their discretion in a responsible and

¹⁰⁶ Ibid.

¹⁰⁷ *Brennan* at 121.

¹⁰⁸ *American Iron and Steel* at 833-5; *Society of Plastics* at 1309.

¹⁰⁹ *Hodgson* at 478; *United Steelworkers* at 501 and *American Iron and Steel* case at 836.

¹¹⁰ *Brennan* at 135; *American Iron and Steel* at 835 and *Society of Plastics* at 1309.

¹¹¹ 503 F.2d 1155 (3rd Cir. 1974).

¹¹² 1157.

¹¹³ 499 F.2d 467 (D.C. Cir. 1974).

¹¹⁴ 477.

flexible fashion and need not strictly comply with advice. In particular, it was for OSHA to decide what was practical.¹¹⁵

What the courts did require was that consideration and deliberation had taken place.¹¹⁶ In *Synthetic I* therefore the decision was partly remanded because of the failure of OSHA to give notice for specific provisions.¹¹⁷ Likewise, in *Dry Colour Manufacturers Association Inc v. Department of Labour*¹¹⁸ (The *Dry Colour* case) the court remanded the decision because the reasons were inadequate. Moreover in *Synthetic Organic Chemical Manufacturers Association v. Brennan*¹¹⁹ (the *Synthetic II* case) the case was partly remanded because the notice and comment requirements had not been properly complied with.

3.2 General Judicial Approaches

The deliberative approach to judicial review of risk regulation can be seen as closely adhering to past understandings of what scope of review doctrine should entail. Before the 1970s the need for public administration to establish facts was not particularly important. As Justice Frankfurter noted in *FCC v. RCA Communications*:

To restrict the Commission's action to cases in which tangible evidence appropriate for judicial determination is available would disregard a major reason for the creation of administrative agencies better equipped as they

¹¹⁵ *Synthetic II* at 391.

¹¹⁶ *Brennan; American Iron and Steel; Society of Plastics* at 1308; *Hodgson* at 474; and *Synthetic I* at 1159-60.

¹¹⁷ 1160.

¹¹⁸ 486 F.2d 98, 104-5 (3rd Cir. 1973).

¹¹⁹ 506 F.2d 385 (3rd Cir. 1974).

are for weighing intangibles by specialization, by insight gained through experience.¹²⁰

As we saw in Chapter Two this lack of focus on facts did not mean that the courts did not require articulation of reasons nor that decision making was arbitrary. A major proponent of the deliberative approach was Judge Bazelon whose judgements are discussed in detail below. While the deliberative paradigm is clearly a more appropriate and at that time more conventional approach to judicial review, it suffered from the problem that, in an era of increased accountability and confusion over the nature of these new agencies, it did not offer up a specific framework for judicial review.

In the main, the early decisions revolved around a deliberative interpretation of the statutes. In doing so the courts were attempting to show that the tasks of agencies were not limited to science but rather required a broad consideration of issues at hand. In a number of cases legislative terms such as ‘imminent’ and ‘danger’ were interpreted so as not requiring a factual finding. This was felt to be consistent with the precautionary aims of the legislation.¹²¹ Thus in the *Amoco Oil* case, Judge Skelly Wright held that the ‘finding’ publication requirements of 42 USCA §1857f-6c(2)(B) of the Clean Air Act were only in relation to the question of whether regulation was required and did not demand that every step of decision making be underpinned by empirical evidence.¹²² Moreover,

¹²⁰ 346 US 86, 96 (1952).

¹²¹ *EDF v. Ruckelshaus* 439 F.2d 584, 597 (D.C. Cir. 1971); *EDF v. EPA* 465 F.2d 528, 540 (D.C. Cir. 1972); *EDF v. EPA* 510 F.2d 1292, 1297 (D.C. Cir. 1975); and *EDF v. EPA* 548 F.2d 998, 1004 (D.C. Cir. 1976). These cases interpret ‘imminent danger’ 7 USCA §136d(c) as only a ‘substantial likelihood of harm rather than a sense of crisis’.

¹²² 501 F.2d 722, 736-7 (D.C. Cir. 1974).

such a section directed that evidence should only be directed at the question of regulation rather than being an ‘aimless commentary on the raw evidence presented to it’.¹²³ Skelly Wright argued that this definition was consistent with previous definitions of informal rulemaking¹²⁴ and that in any case:

Where...regulations turn on choices of policy, an assessment of risks, or on predictions dealing with matters on the frontiers of scientific knowledge, we will demand adequate reasons and explanations but not ‘findings’ of the sort familiar from the world of adjudication.¹²⁵

Likewise, in relation to injunctive relief issued by a US District Court under the Federal Water Pollution Control Act (FWPCA)¹²⁶ the 8th Circuit stated that:

In the context of this environmental legislation, we believe that Congress used the term ‘endangering’ in a precautionary or preventative sense, and therefore evidence of *potential harm* as well as *actual harm* comes within the purview of that term.¹²⁷

In this case, lack of actual proof was not a barrier to a District Court order. It did not however allow an order which caused serious economic dislocation where there was only a possible threat rather than absolute proof of one.¹²⁸ This was a recognition that in solving a problem, proportionality and a proper understanding of the issues was important.

A high point of the ‘precautionary’ approach to scope of review was *Ethyl Corp. v. EPA* (The *Ethyl* case).¹²⁹ That case involved EPA regulations under the Clean Air Act which required annual reductions of the emission of leaded gasoline.

¹²³ 736.

¹²⁴ 739-40.

¹²⁵ 741. Emphasis supplied.

¹²⁶ 33 USCA §1160(g)(1).

¹²⁷ *Reserve Mining* at 529.

¹²⁸ 537.

The Court upheld the decision of the EPA.¹³⁰ Judge Skelly Wright gave the main judgement and his decision constantly refers to the complex nature of the agencies' task which is made even more difficult by scientific uncertainty.¹³¹ He interpreted 'will endanger' in a precautionary manner.¹³² In particular, he recognised that the assessment of risks required both factual and policy analysis.¹³³

Skelly Wright also acknowledged that there was no obvious way in which to conduct judicial review.¹³⁴ Skelly Wright argued that the court needed to inquire into the record in detail.¹³⁵ The reason for this was not to engage in de novo review but rather to understand what was the complexity of the agency's task.¹³⁶ To that end he analysed the 10,000 page record in detail and found it to be on a rational basis.¹³⁷ EPA had published a document which 'candidly' discussed the scientific issues and they had adjusted their final regulations in light of consultations on the

¹²⁹ 541 F.2d 1 (D.C. Cir. 1976).

¹³⁰ Chief Judge Bazelon, and Skelly Wright, McGowan, Leventhal, Robinson Circuit Judges concurred. Tamm, Robb and Wilkey, Circuit Judges dissented.

¹³¹ 6.

¹³² 20-28.

¹³³ 13-29.

¹³⁴ The footnotes accompanying Judge Skelly Wright's discussion at 34-6. In concurrence, Chief Bazelon and Judge Leventhal diverged from Skelly Wright over what should be the nature of judicial review (66-9).

¹³⁵ 36.

¹³⁶ 36. Note he referred to *Market Street Railway v. Railroad Commission* 324 US 548, 559-61 (1945) which is a case based on a deliberative approach and stresses the importance of experimentation, experience, and the need for the agency to consider broader factors.

¹³⁷ 37-48, 55-65.

basis of that document.¹³⁸ Moreover new evidence was made available to petitioners.¹³⁹ In conclusion, Judge Skelly Wright stated:

The complex scientific questions presented by this rulemaking proceeding were 'resolved in the crucible of debate through the clash of informed but opposing scientific viewpoints'.¹⁴⁰

He upheld the rule on this basis. What is clear is that for him the most important basis of decision making was a deliberative discourse and not factual analysis.

The reasons for dissent were based in the main, on concerns that there should be a greater factual basis for decision making.¹⁴¹ Judge Wilkey noted:

The standard 'will endanger' makes the existence or non-existence of a scientifically demonstrated chain of transmittal (and not a mere pattern of guesswork) decisive. For if no such scientifically proved chain exists, the Administrator's decision can only be arbitrary and capricious.¹⁴²

While *Ethyl* is significant because of its majority decisions, this minority decision cannot be ignored. The question is how did this second perception of the agency's role come to be fostered? Moreover, how did it come to overtake in the space of five years the powerful majority of Skelly Wright, Bazelon, Leventhal and McGowan? It is not simply a case of interpretation of phrases but rather has to do with the three other narratives.

¹³⁸ 10.

¹³⁹ 49, 53.

¹⁴⁰ 54.

¹⁴¹ 97-9.

¹⁴² 99.

4. The Legislating of Scope of Review: Towards the Rationalist Paradigm

The APA in 1946 had codified judicial review.¹⁴³ As was noted in Chapter Two, the substantial evidence test was used for review of formal rulemaking or adjudication.¹⁴⁴ In contrast, the arbitrary and capricious standard applied to informal rulemaking. The new statutes did not rely on this general codification however and set out explicitly standards of review and rulemaking procedures. These new provisions were not only confusing to the courts but also were a catalyst for the imposition of the rationalist paradigm. The combinations prescribed by Congress were not those that had been outlined in the APA. This is represented in the table below.

¹⁴³ Although only ever as a bare minimum framework. For judicial interpretations see *Florida East Coast; Universal Camera Corp. v. NLRB* 340 US 474 (1951); *Mobil Oil Corp. v. FPC* 483 F.2d 1238, 1253 (D.C. Cir. 1973) (The *Mobil Oil* case); Scalia (1978); and Auerbach (1977) at 17.

¹⁴⁴ Note (1975) at 1752.

Table 4 – Examples of Standards of Review in Risk Regulation Legislation

Legislation	Rulemaking Procedure	Standard of Review
Occupational Safety and Health Act 29 USCA §655(f)	Informal with extra advisory committee and public hearing requirements.	‘The determinations of the Secretary shall be conclusive if supported by substantial evidence in the record as a whole.’
Consumer Product Safety Act 15 §2058	Informal ¹⁴⁵	‘supported by substantial evidence as a whole’ ¹⁴⁶
Toxic Substances Control Act 15 USCA §2618	Informal with a right of cross examination at oral hearings	‘the rule is not supported by substantial evidence in the rulemaking record’ Rulemaking record is defined Evidence is defined as ‘any matter in the rulemaking record’.
Clean Air Act 42 §7607(d) ¹⁴⁷	Informal with public hearing requirements, rulemaking docket specifications and a requirement for a statement and purpose which includes methodology.	‘In the case of review of any action of the Administrator to which this section applies, the courts may reverse any such action found to be- (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; (B) contrary to constitutional right, power, privilege or immunity; (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; or (D) without observance of procedure required by law, if (i) such failure to observe such procedure is arbitrary or capricious.... ¹⁴⁸
Safe Drinking Water Act 42 §300g-1 ¹⁴⁹	Informal including administrative hearings and public consultations.	‘substantial evidence’
FIFRA 7 USCA §136n(b)	Registration	‘The Court shall consider all evidence of record. The order of the Administrator shall be sustained if it is supported by substantial evidence when considered on the record as a whole’.

These new legislative schemes were at odds with that post-APA interpretation of scope of review.¹⁵⁰ The ‘substantial evidence’ of the ‘substantial

¹⁴⁵ Note that 1990 amendments added a complex procedure which included regulatory analysis.

¹⁴⁶ 15 USCA §2060

¹⁴⁷ Added by 1977 Amendments. Pub. L. 95-95 §305(a).

¹⁴⁸ 42 USCA §7607(d)(9).

¹⁴⁹ Before 1996 amendments.

evidence' test was the evidence to be found on a formal rulemaking record but in these new statutes it was now to apply to informal rulemaking. The reason why Congress had chosen to do this is not entirely clear. In some cases it seems to have been part of a desire for more stringent review.¹⁵¹ In other cases such as the OSH Act the pairing was the product of a legislative compromise between the House and the Senate. Originally the former had wanted formal rulemaking while the latter informal rulemaking.¹⁵² Whatever is the truth, the legislative debates on the issue were rarely illuminating. Commentators and courts were scathing about the new combination and labelled it as the 'substantial evidence without a record test' and argued that it was more likely to increase 'the potential for administrative confusion and judicial mischief than to offer a useful scope of review test'.¹⁵³

The substantial evidence test in 1970 could be defined in two different ways. On a strict rendering of the APA¹⁵⁴ the standard was interpreted to require that an adjudicatory proceeding was necessary, replete with trial procedure. As such:

As a general rule substantial evidence is applied in connection with a formal hearing, at which an unbiased officer presides, rules of evidence apply and parties both cross examine witnesses.¹⁵⁵

¹⁵⁰ Note (1974) at 464; Scalia & Goodman (1973) at 934.

¹⁵¹ *Aqua Slide N' Dive Corp. v. CPSC* 569 F.2d 831, 837 (5th Cir. 1978) (The *Aqua Slide* case).

¹⁵² *Hodgson* at 473; *Associated Industries* at 349; and Note (1974) at 466.

¹⁵³ Verkuil (1974) at 226. Also see Scalia and Goodman (1973) at 935 and *Camp v. Pitts* 411 US 138, 138 (1973); *Mobil Oil* at 1262; and *Florida Peach* at 128.

¹⁵⁴ Scalia and Goodman (1973) at 934.

¹⁵⁵ *Aqua Slide* at 837.

This definition however, was not in keeping with the general unpopularity of adjudication at this time. Moreover, on this definition, the substantial evidence test would be impossible to apply to informal rulemaking, not only because there was no formal hearing but also because no physical administrative record was produced.¹⁵⁶

The other interpretation of the substantial evidence test was that it stood for the proposition that in some cases the facts that the agency was basing its decision on needed to be proved with a greater degree of certainty than in normal informal rulemaking.¹⁵⁷ It was included in legislation because while informal rulemaking mainly applied to policy judgements, even legislative type rules could require the utilisation of facts.¹⁵⁸ These facts were still legislative however and thus unlike adjudicative facts did not require validation through trial procedure.¹⁵⁹ In *Mobil Oil Corp. v. FPC* (The *Mobil Oil* case) the court stressed that:

What is required are procedures which will adequately test the Court's factual determinations and create a record that will allow a reviewing court to examine the agency's actions. The procedures required are related and proportionate to the test of evidentiary support which the agency's decision must ultimately withstand.¹⁶⁰

The important feature of the substantial evidence test was that it required a firmer evidentiary basis than traditionally required under informal rulemaking.¹⁶¹ It

¹⁵⁶ *Overton Park* at 827; *Small Refiner* at 519; Auerbach (1977) at 16,23; and Williams (1976) at 401.

¹⁵⁷ *Mobil Oil* at 1258-9.

¹⁵⁸ *Mobil Oil* at 1257. Also see *Chrysler* at 669 and Note (1975) at 1750.

¹⁵⁹ This is referring to Kenneth Culp Davis' distinction at Davis (1958) at §15.03. The distinction is highly circular.

¹⁶⁰ *Mobil Oil* at 1262. Also see *International Harvester* at 631.

¹⁶¹ Some doubted whether this was the case. See Scalia & Goodman (1973) at 934.

ultimately required the court to take a harder look at the weight of the evidence underpinning the decision.¹⁶² Moreover, it also required the development of an administrative record so that review could be carried out. This record however did not need to be based on formal hearings.¹⁶³ It did however have to have some factual basis or at least show that the agency had acted on a 'rational basis'.¹⁶⁴ This automatically raised questions about how such a factual basis should be established and how the courts would determine it was adequate. They could no longer rely on trial procedure to achieve this goal.

4.1 OSHA : 'The Illogic of Legislative Compromise'

Not surprisingly the second interpretation was the one followed and a good example of this can be evidenced in relation to the OSH Act. The primary response of the courts to the mismatch of standard of review and rulemaking procedure had been one of frustration and it was described as an 'illogic of legislative compromise'.¹⁶⁵ Judge McGowan in *Hodgson* was highly critical of this combination describing it as adding to the 'angularity of the relationship' between the courts and OSHA and imposing 'additional burdens upon the court'.¹⁶⁶ Many judges viewed the substantial evidence test as nearly impossible to apply.¹⁶⁷

¹⁶² *Aqua Slide* at 838.

¹⁶³ Verkuil (1974) at 224.

¹⁶⁴ Auberach (1977) at 16 and Note (1974) at 464.

¹⁶⁵ *Hodgson* at 469. Also see *Synthetic I* at 1157.

¹⁶⁶ *Hodgson* at 469.

¹⁶⁷ *Society of Plastics* at 1304 and *Synthetic I* at 1157. For other discussions of the problems see *Associated Industries* at 347-50; *Florida Peach* at 127-29; *Asbestos Information* at 421; and *American Petroleum Institute v. OSHA* 581 F.2d 493, 497 (5th Cir. 1978) (The *American Petroleum* case).

The major conceptual barrier for the courts was that the record produced under the hybrid provisions of the OSH Act did not yield easily to a substantive evidence analysis on either interpretation. Judge McGowan in the *Hodgson* case described the record in that case consisting in the main:

of a melange of written statements, letters, reports, and similar materials received outside the bounds of the oral hearing and untested by anything approaching the adversary process.¹⁶⁸

Likewise in *Society of Plastics* the review of the 4000 page record was described as a

prodigious task...aggravated by duplications of testimony, irrelevant exhibits and letters, almost illegible reproductions of documents and a generally blunderbuss approach in petitioner's briefs.¹⁶⁹

The labrinythine nature of the rulemaking record was not merely due to it being an informal process but also due to the fact in areas of scientific controversy any record on which a decision was based would be an intricate web of conflicting scientific information, deliberation and policy.¹⁷⁰

As we saw above, the courts chose the second interpretation and in the main defined the substantial evidence test as requiring that substantial evidence underpin the *factual* aspects of the record.¹⁷¹ In the *Hodgson* case Judge McGowan described the general standard of review as the following:

What we are entitled to at all events is a careful identification by the Secretary, when his proposed standards are challenged, of the reasons why he chooses to follow one course rather than another. Where the choice purports to be based on the existence of certain determinable facts, the

¹⁶⁸ 474.

¹⁶⁹ *Society of Plastics* at 1304. Also see *Florida Peach* at 129.

¹⁷⁰ Jasanoff (1989) at 156.

¹⁷¹ *American Iron and Steel* at 831 and *Synthetic I* at 1159.

Secretary must, in form as well as substance, find those facts from the evidence in the record. By the same token, when the Secretary is obliged to make policy judgements where no factual certainties exist or where facts alone do not provide the answer, he should so state and go on to identify the considerations he found persuasive.¹⁷²

Thus the substantial evidence test applied to the judicial review of the facts and the arbitrary and capricious standard would apply to the rest of the decision.¹⁷³ Yet even under this non-adjudication interpretation of the test there were still serious problems with carrying out judicial review in this manner. Judge Staley in *Synthetic Organic Chemical Manufacturers v. Brennan* (the *Synthetic II* case)¹⁷⁴ commented that applying the substantial evidence test to informal rulemaking was a:

good illustration of the difficulty in attempting to measure a legislative policy decision against a factual yardstick.

Moreover, the courts appreciated that OSHA's decision making was 'essentially a prediction based upon pure legislative judgement' and that rulemaking not only required 'factual findings subject to evidentiary development' but also 'legislative like policy judgements'.¹⁷⁵ An attempt to make a distinction between fact and policy was not only artificial but in some cases impossible.¹⁷⁶ To carry out judicial review however such a distinction did need to be made.¹⁷⁷ Thus in *Hodgson* Judge McGowan stated that:

¹⁷² 475-6.

¹⁷³ *American Iron and Steel* at 831; *Hodgson* at 473; and *Associated Industries* at 347. Note this was bolstered up with an interpretation of 'determination' in §655(f).

¹⁷⁴ 503 F.2d 1155, 1158 (3rd Cir. 1974).

¹⁷⁵ *American Petroleum* at 497.

¹⁷⁶ *Brennan* at 115; *Society of Plastics* at 1304; and *Synthetic I* at 1160.

¹⁷⁷ *Hodgson* at 474. Also see *Synthetic I* at 1159 where the court states that extrapolation is not a factual matter.

Although in practice these elements [fact and policy] may so intertwine as to be virtually inseparable they are conceptually distinct and be regarded as such by the reviewing court.¹⁷⁸

Thus in *American Iron & Steel Institute v. OSHA*¹⁷⁹ the first task of the court was to distinguish between determinations ‘bottomed on factual matters, and non-factual legislative-like policy decisions’.

It should be noted that in some other cases it was argued that the substantial evidence test applied to both fact and policy and that what it required was simply for more explicit agency articulation and stringent review.¹⁸⁰ In the early case of *Associated Industries* Judge Friendly stated that the legislative intent and the natural meaning of the Act suggested this should be the case.¹⁸¹ On this analysis the distinction between the substantial evidence test and arbitrary and capricious test was merely ‘semantic’ and about intensity.¹⁸² Moreover, the development of a record would still be important for ensuring that the decision maker had properly articulated the basis of their reasoning.¹⁸³

4.2 Records, Facts and Expertise

As is clear from above, the problems caused by these new legislative schemes were not easily resolvable. If anything, they opened up to questioning the whole post-APA schemata for review. Thus, even though other legislation such as

¹⁷⁸ *Hodgson* at 474.

¹⁷⁹ 577 F.2d 825, 831 (3rd Cir. 1978).

¹⁸⁰ *National Grain* at 728.

¹⁸¹ *Associated Industries* at 348.

¹⁸² *Associated Industries* at 349-350 and *Synthetic I* at 1158; *American Petroleum* at 497; *Texas Independent Ginners Association v. Marshall*, 630 F.2d 398, 404 (5th Cir. 1980) (The *Texas Independent Ginners* case).

the Clean Air Act did not have this contradictory set of rulemaking and review requirements, these new schemes contributed to how the courts approached judicial review. In particular, how they judicially reviewed the *evidentiary* basis of a decision. Four implications of this line of analysis are particularly striking.

The first was that it reinforced the point that ‘hearings’ and a ‘record’ need not necessarily be shaped by trial procedure.¹⁸⁴ This development as Justice Douglas noted in *US v. Florida East Coast Railway*¹⁸⁵ was a ‘sharp break with traditional concepts of due process’. The OSH Act and other risk regulation statutes required hearings to take place and the court demanded administrative records (see below) but adjudicative procedure was not necessarily relevant to this process.¹⁸⁶ Thus, for example, hearings could aid the collection of information and promote public participation. As Justice Black noted in *Citizens to Preserve Overton Park Inc. v. Volpe* (The *Overton Park* case) that a certain piece of legislation called for:

Hearings – hearings that a court can review, hearings that demonstrate more than mere arbitrary defiance by the Secretary. Whether the findings growing out of such hearings are labeled ‘formal’ or ‘informal’ appears to me no more than an exercise in semantics.¹⁸⁷

Yet by unshackling these tools of administrative government from adjudicative procedure other means would need to be found to ensure that a record or hearing was ‘reasonable’.

¹⁸³ *Dry Colour* at 104-5.

¹⁸⁴ *Mobil Oil* at 1257. Also see *Chrysler* at 669; and Note (1975) at 1750.

¹⁸⁵ 410 US 224, 246 (1973).

¹⁸⁶ For discussion of this point in relation to hearings see Friendly (1975); *Walter Holm & Co. v. Hardin* 449 F.2d 1009, 1016 (D.C. Cir. 1971); *Seacoast Anti-Pollution League v. Costle* 572 F.2d 872, 877 (1st Cir. 1978) (The *Seacoast* case); and *International Harvester* at 629.

Second, the interpretation of the substantial evidence test required that decision makers would need to establish that their decisions had some factual basis.¹⁸⁸ This was a departure from past interpretations of informal rulemaking which only required the establishment of legislative facts.¹⁸⁹ Facts however, were now more important to establishing the legitimacy of decision making. To that end, decision makers would have to explicitly identify the factual basis to their decision and thus a distinction between fact, law and policy would have to be made.¹⁹⁰ As the substantial evidence test would apply to the facts and the arbitrary and capricious standard to policy and law, such a distinction was crucial in judicial review.¹⁹¹ Even those who argued that the substantial evidence test merely required greater scrutiny than the arbitrary and capricious standard still argued that the distinction was important.¹⁹²

The third and related implication of this was the development of an administrative record in informal proceedings. Agencies needed to explain and articulate the reasoning behind their choices.¹⁹³ They also needed to identify the

¹⁸⁷ 401 US 402, 422 (1971).

¹⁸⁸ *South Terminal* at 655 and *Chrysler* at 665.

¹⁸⁹ See above but also Robinson (1970) at 494 and *American Airlines* at 633.

¹⁹⁰ *EDF v. EPA* 598 F.2d 62, 82 (D.C. Cir. 1978); *Weyerhaeuser* at 1027; and *Lead Industries* at 1146. Strauss et al (1995) at 520 describing the distinction as a good starting point. Also see Marcel (1983) at 406.

¹⁹¹ *EDF v. EPA* 598 F.2d 62, 82 (D.C. Cir. 1978); *Sierra Club v. EPA* 540 F.2d 1115, 1132 (D.C. Cir. 1976) and *Texas Independent Ginners* at 405.

¹⁹² Note (1974) and *National Grain* at 729.

¹⁹³ *Texas Independent Ginners* at 405; *Tanner's Council* at 1191; and *International Harvester* at 648.

facts in a ‘systematic fashion’,¹⁹⁴ and explicitly identify when they were relying on policy.¹⁹⁵ In relation to the ‘substantial evidence’ test it was not simply enough that they had some evidence on which to make a decision but rather that the whole of the record supported the decision.¹⁹⁶ This was not to say that all evidence had to support it but that on an analysis of the ‘whole of the record’ the weight of it did.¹⁹⁷ For all this to occur some form of record was required and the ‘melange of statements’ discussed above was not acceptable. The record requirement was also fuelled by the doctrine of hard look review (discussed below) and *Overton Park* formed the ‘cornerstone’ of the record requirement.¹⁹⁸ In that case the Supreme Court interpreted the ‘arbitrary and capricious’ standard of review in the following terms:

To make this finding the court must consider whether the decision was based on a consideration of the relevant factors and whether there was a clear error of judgement....Although the inquiry into the facts is to be searching and careful, the ultimate standard of review is a narrow one. The court is not empowered to substitute its judgement for that of the agency.¹⁹⁹

The record needed to be in a coherent and usable form to make a finding of not arbitrary and capricious or one of substantial evidence.²⁰⁰ Some courts described this as requiring that the agencies establish there was a ‘rational basis’ for decision

¹⁹⁴ *Weyerhaeuser* at 1026; *National Lime* at 431,454; and *Ethyl* at 67 per Bazelon arguing that it should not have to be the court which has ‘scour the four corners of the record’ to find evidence to support the standard.

¹⁹⁵ *Hodgson* at 474; and *Texas Independent Ginners* at 405.

¹⁹⁶ *Hercules* at 108.

¹⁹⁷ *EDF v. EPA* 598 F.2d 62, 90 (D.C. Cir. 1978).

¹⁹⁸ 419. See DeLong (1979) at 262 for a discussion of this.

¹⁹⁹ 401 US 402, 416 (1971).

²⁰⁰ *Dry Colour* at 104-5.

making.²⁰¹ By the end of the 1970s all informal risk regulation rulemaking was based on a record and the ‘paper hearing’ became the norm.²⁰²

The requirement for a record was not necessarily a requirement for facts. However, as noted above some factual basis was required and that basis could not be established through adjudication. Another method of validation was required and the choice of this would depend on the cumulative impact of the factors above. Thus the fourth implication of these legislative schemes was their influence on what was understood to be administrative expertise in this area. What had occurred was a subtle and important shift. Adjudication had been rejected but the concept of an administrative record maintained. Ideally, that record should have a factual element and the record should be arranged in such a way that the agency could establish that it collected its information in an orderly and rational way²⁰³; that it analysed its information in accordance with accepted scientific principles;²⁰⁴ and that there was a logical connection between this information and the final choice made.²⁰⁵ Thus only a minimal part of the decision was to be understood to be on the ‘frontiers of scientific knowledge’ and the rest was characterised as being firmly in the world of methodology.²⁰⁶ This was not to say that the court did not recognise the problems of scientific uncertainty but that the agency would need to

²⁰¹ *Sierra Club v. EPA* 540 F.2d 1115,1123 (D.C. Cir. 1976); *Reynolds* at 558; *Certified Colour* at 293-4; *Ethyl* at 34; *Lead Industries* at 1145.

²⁰² *Stewart* (1977) at 731; *Pederson* (1975); and *DeLong* (1979).

²⁰³ *Seacoast* at 879; *International Harvester* at 548; and *National Lime* at 431, 452.

²⁰⁴ *Bunker Hill Co. v. EPA* 572 F.2d 1286, 1299 (9th Cir. 1977).

²⁰⁵ *Certified Colour* at 294.

²⁰⁶ *Lead Industries* at 1146.

specify exactly where such uncertainty had affected the decision and how they had taken it into account.²⁰⁷

The shift is well illustrated in the case of *National Lime Association v. EPA*²⁰⁸ (The *National Lime* case) in which the D.C. Circuit struck down an EPA source performance standard for lime manufacturing plants because the EPA had failed to consider the quality of the data. Judge Wald stated:

Both decisions reviewing the NSPS [new source performance standards] and those reviewing other administrative determinations under the Clean Air Act evince a concern that variables be accounted for, that the representativeness of test conditions be ascertained, that the validity of tests be assured and the statistical significance of results determined. Collectively, these concerns have sometimes been expressed as a need for 'reasoned decisionmaking' ...²⁰⁹

In making factual determinations or inferring from scientific evidence the agency should only do so where their expertise allows. Such expertise was not acquired through experience but rather through specialist methodology. Thus a scientist could not have an opinion on consumer perceptions²¹⁰ or how the public may respond to safety labelling unless they had a formal training in the area.²¹¹

Thus by interpreting an odd and inconsistent legislative scheme the courts had arrived at a framework for scope of review grounded in a rationalist paradigm. Yet this process of interpretation is not enough to explain why the minority viewpoint in *Ethyl* and the rationalist paradigm came to predominate. The record could have been defined, as it had been in the early 1970s OSHA cases as a

²⁰⁷ *Lead Industries* at 1146 and *Hercules* at 108.

²⁰⁸ 627 F.2d 416 (D.C. Cir. 1980).

²⁰⁹ 452-3.

²¹⁰ *Gulf Oil Corporation v. EPA* 548 F.2d 1228, 1231 (5th Cir. 1977).

requirement to give reasons,²¹² hearings could have been construed in a more deliberative manner²¹³, and the fact/law distinction need not have been made as crucial as it was. Another factor was of equal importance in promoting the rationalist paradigm – the rise of hard look review against a background in which administration was distrusted.

5. Competing Interpretations of Hard Look Review

In the early 1970s there was general agreement that judicial review should not be as deferential as it had been during the New Deal. The question remained open however what should be the nature of judicial scrutiny. There was no doubt it should involve the agency giving reasons and the concept of greater agency articulation was not new. Justice Frankfurter and others had demanded that an agency explain the basis on which they exercised their discretion from the 1940s onwards.²¹⁴ What was new however was a division of viewpoints on what the nature of that explanation should be. On the one hand, the courts in cases such as *Ethyl* were requiring agencies to articulate their decision as if they were deliberative experts. In contrast, in cases such as *National Lime*, the courts were demanding that agencies explain the methodology on which they had reached decision. The former being based on an appreciation of what the task of risk regulators was and the other grounded in the cryptic legislative schemes. This

²¹¹ *Aqua Slide* at 843.

²¹² *Dry Colour* at 104-5 and *Hodgson* at 474.

²¹³ *Table S-3*.

²¹⁴ *FCC v. RCA Communications* 346 US 86, 91 (1952) and Verkuil (1974) at 230.

division came to be the focal point for the debate over what was described as hard look review.

The concept of hard look review was developed in the late 1960s. In a number of early cases, decisions of the EPA were overturned because they did not establish that the Agency had engaged in reasoned analysis or consideration.²¹⁵ Ironically many of these cases had arisen out of the action that the EPA had been required to take within strict time limits under §1857c of the Clean Air Act.²¹⁶ Hard look review was a form of judicial review designed to ensure that the agency had taken a hard look at the issue before them.²¹⁷ It was not so much a strict legal rule but rather a philosophy stating that the courts should take a leading role in ensuring good administration. The problem however, was that there was little conformity as to what this meant. The two major proponents of it, Chief Judge Bazelon and Judge Leventhal, both of the D.C. Circuit had quite different views on the issue. Leventhal's approach was very much in accordance with that seen in the legislative schemes above. In contrast, Bazelon argued for a more deliberative approach to hard look review.

5.1 Distrust and Methodology: Leventhal

Judge Leventhal took the first steps towards concretising the concept of hard look review. He had been a member of the Hoover Commission and his

²¹⁵ *Wellford v. Ruckelshaus* 439 F.2d 598, 603 (D.C. Cir 1971).

²¹⁶ *Portland Cement Association v. Ruckelshaus* 486 F.2d 375 (D.C. Cir. 1973)(The Portland Cement case); *Essex Chemical Corporation v. Ruckelshaus* 486 F.2d 427 (D.C. Cir. 1973); and *Kennecott Copper Corporation v. EPA* 462 F.2d 846 (D.C. Cir. 1972).

²¹⁷ *EDF v. EPA* 465 F.2d 528, 541 (D.C. Cir. 1972).

concerns to prevent agency capture²¹⁸ and to constrain delegation of discretion are consistent with the findings of that report.²¹⁹ His jurisprudence has been described as being concerned with ‘pragmatic justice’ and fairness²²⁰ and this latter element was represented in his desire to make government decision making as objective as possible.

Leventhal’s distrust of bureaucracy was not isolated to him but as we saw in Chapter Three is indicative of this period. The concept of ‘administrative expertise’ was viewed with disdain and an excuse for unarticulated irrational reasoning.²²¹ Despite the language of ‘partnership’ the increased role of the courts was a way of policing agency power. In particular, informal rulemaking was perceived as making agencies particularly vulnerable to being a ‘seed bed for the weed of industry domination’.²²² This distrust was in the human face of bureaucracy. As Judge Cummings noted in one case:

Such drastic power [shutting down an industrial plant] which is still being exercised by human beings could well lead to government by whim.²²³

Such a comment suggests that courts were willing to place more faith in science than they were in the exercise of expert discretion and this can be seen in the

²¹⁸ *Walter Holm & Co. v. Hardin* 449 F.2d 1009, 1016 (D.C. Cir. 1971).

²¹⁹ Burger (1980) at 880 and Estreicher (1980) at 898.

²²⁰ *Ibid.*

²²¹ *EDF v. Ruckelshaus* 439 F.2d 584, 597-8 (D.C. Cir. 1971); *Baltimore & Ohio Railway Company v. Aberdeen & Rockfish Railway Company* 393 US 87, 92 (1968); and *FPC v. US Pipeline Co.* 393 US 71, 72 (1968). Also see *Chrysler* at 665 where the court stated that the ‘rational consideration’ test amounted to no review at all.

²²² *Walter Holm & Co. v. Hardin* 449 F.2d 1009, 1016 (D.C. Cir. 1971) per Judge Leventhal. Also see Marcel (1983) at 420.

²²³ *Nor Am Agricultural Products Inc. v. Hardin* 435 F.2d 1151, 1166 (7th Cir. 1970). Also see Marcel (1983) at 418.



general approach of some judges in carrying out judicial review. Informal rulemaking was perceived as being a ‘freewheeling’, ‘brainstorming’ and unaccountable process and one task of the court was to constrain this activity.²²⁴ An important mechanism for doing this was by requiring administrators to articulate their decisions. As we saw above, the creation of a record in informal rulemaking aided this.²²⁵

In *Greater Boston Television Corporation v. FCC*²²⁶ (The *Greater Boston* case) Leventhal first set out in detail his understanding of ‘hard look review’. He stated that it would ensure that the agency focused ‘on the values served by its decision’ and this was not controversial.²²⁷ Yet Leventhal’s description of the task of the agency was a departure from past understandings. He stated that:

Expert discretion is secured, not crippled by the requirements for substantial evidence, findings and reasoned analysis. Expertise is strengthened in its proper role as the servant of government when it is denied the ‘opportunity to become a monster which rules with no practical limitations on its discretion’.²²⁸

This construction of the expert agency as an instrumental appendage to the democratic process can be seen in the rest of the case. Judge Leventhal described the task of the agency as being three fold – keeping within legislative boundaries, finding facts and ‘selecting’ policies.²²⁹ Within Leventhal’s description there was no room for agencies solving polycentric problems in a transdisciplinary way.

²²⁴ Rodgers (1979) at 717.

²²⁵ Marcel (1983) at 427.

²²⁶ 444 F.2d 841 (D.C. Cir. 1970).

²²⁷ 852.

²²⁸ 850.

²²⁹ 851.

Policy was not to be developed but rather Congressional desires applied to the problem at hand. This stood in stark contrast to Justice Frankfurter's criticism of such passive policy making in *FCC v. RCA Communications*.²³⁰

In establishing that they had taken a hard look the agency would need to show that they had identified the crucial facts and taken into account the different expert opinions in relation to them.²³¹ Leventhal identified one of the most problematic aspects of this task being the choosing between two equally qualified experts.²³² Moreover, he noted that there were certain 'danger signals' which suggested that the courts needed to engage in even greater scrutiny. In this case, as the Federal Communications Commission (FCC) decision making process had been 'blemished' by opportunities for agency capture and because their policies were in a state of flux, he stated the court must be extra vigilant.²³³

Leventhal in other cases, applied the doctrine to risk regulation. He felt it had particular applicability because the consequences of regulation were so serious and widespread and thus any decision required more scrutiny.²³⁴ He wanted to ensure an agency had taken a 'hard look at its hard problems'.²³⁵ This approach can be evidenced in a number of decisions. His primary concern was one about

²³⁰ 346 US 86, 96 (1952). See Chapter Two.

²³¹ 851.

²³² 852.

²³³ 850

²³⁴ *Wellford v. Ruckelshaus* 439 F.2d 598, 601 (D.C. Cir 1971); *International Harvester* at 394. For other judicial discussion of this point see *Hercules* at 123.

²³⁵ *EDF v. EPA* 465 F.2d 528, 541 (D.C. Cir. 1972).

ensuring that there was a factual basis to the decision.²³⁶ He noted in *Portland Cement Association v. Ruckelshaus*²³⁷ (The *Portland Cement* case) that:

It is not consonant with the purpose of a rule-making proceeding to promulgate rules on the basis of inadequate data, or on data that, critical degree is known only to the agency.²³⁸

This approach can be seen in the way he approached a number of different issues. First, Leventhal argued that the courts should focus on questions of proof because it was something that the courts were well qualified to do and despite the technical detail of administrative records courts had an excellent grasp of what it meant to ‘prove something’.²³⁹ He argued that the EPA had the burden of proving that their analysis was correct.²⁴⁰ To do so they had to refute or take into account other material scientific viewpoints.²⁴¹ Any material *factual* submission would have to be dealt with before such a burden would be discharged.²⁴² Second, Leventhal in carrying out hard look wanted to ensure that any decision was methodologically rigorous.²⁴³ As he noted in *International Harvester Co. v. Ruckelshaus*²⁴⁴ (The *International Harvester* case), ‘the underlying issue was the reasonableness and reliability of the Administrator’s methodology’.²⁴⁵ This meant that procedures

²³⁶ Leventhal (1974) at 511.

²³⁷ 486 F.2d 375 (D.C. Cir. 1973)

²³⁸ 393.

²³⁹ Leventhal (1974) at 538.

²⁴⁰ *International Harvester* at 648.

²⁴¹ *Portland Cement* at 393.

²⁴² *Ethyl* at 69.

²⁴³ *Portland Cement* at 392.

²⁴⁴ 478 F.2d 615 (D.C. Cir. 1973).

²⁴⁵ 643.

should be dedicated to strengthening analysis.²⁴⁶ The agency would need to set out in detail their methodology and if it deviated from petitioner's views or departed from past practices explain why it was so. Third, Leventhal did acknowledge the problems of scientific uncertainty. He insisted however that an important distinction should be made between 'prophecy' and 'prediction'.²⁴⁷ Only the latter was valid for an agency and in predicting the agency would need to rely heavily on methodology.²⁴⁸

The doctrinal implications of this was that the administrative record needed to set out in detail the methodology of decision making and its associated reasoning. Leventhal had no time for 'intuition of experience which outruns analysis'.²⁴⁹ Adjudicatory procedures could be useful, particularly cross examination because it was an 'engine of truth'.²⁵⁰ Leventhal remanded decisions on a number of grounds. In *International Harvester* he did so because the standards had been based on unexplained assumptions, variations from the methodology of other government agencies, and because the statistical reliability of predictions was too weak.²⁵¹ In *Portland Cement* he did so because the manufacturers had not been allowed to comment because the details of methodology had not been disclosed.²⁵²

²⁴⁶ *International Harvester* at 632.

²⁴⁷ *International Harvester* at 642 and *Portland Cement* at 391.

²⁴⁸ *International Harvester* at 642.

²⁴⁹ *Greater Boston* at 852 quoting Justice Holmes.

²⁵⁰ *International Harvester* at 631.

²⁵¹ *International Harvester* at 648.

²⁵² *Portland Cement* at 402.

In *EDF v. EPA*²⁵³ he remanded the decision because the EPA had ordered a total suspension of the use of aldrin and diedrin where the facts suggested less drastic action would be desirable.

Leventhal's 'rule of administrative law'²⁵⁴ clearly required the courts to play a more intrusive role but he was quick to note that this should not allow substitution of agency judgement for the court's²⁵⁵ and he constantly argued for judicial restraint.²⁵⁶ Such restraint however could take place when the court was scrutinising the decision very carefully and to do this the court needed to understand to some extent the technical detail.²⁵⁷

5.2 Deliberation and Procedure: Bazelon

It is on this last point which commentators have tended to distinguish the viewpoints of Bazelon and Leventhal because in contrast, Chief Judge Bazelon argued that courts should not delve so deeply into technical issues.²⁵⁸ Rather they should ensure that the decision making process was such that it would produce a reasoned decision. In *EDF v. Ruckelshaus* he noted:

²⁵³ 465 F.2d 528, 537, 541 (D.C. Cir. 1972). Also see *EDF v. EPA* 510 F.2d 1292, 1298 (D.C. Cir. 1975).

²⁵⁴ Leventhal (1974) at 514.

²⁵⁵ *Ethyl* at 68.

²⁵⁶ *Greater Boston* at 851; *Ethyl* at 69; and Leventhal (1974) at 540.

²⁵⁷ *Ethyl* at 68.

²⁵⁸ *Ethyl*. at 67 and Bazelon (1977) at 822. For commentary see McGarity (1979) at 797 and Jasanoff (1995) at 76-7.

When administrators provide a framework for principled decision making, the result will be to diminish the importance of judicial review by enhancing the integrity of the administrative process.²⁵⁹

On its face, this seemed to reach the same result as Judge Leventhal, via a different route. In some cases they did agree²⁶⁰ but they diverged dramatically on principle. Bazelon was acutely aware that scientific uncertainty required many decisions to be made on 'judgement calls'.²⁶¹ Moreover, he stressed that while in many cases better evidence may be available the important issue was whether the facts available allowed both the agency and the wider public to engage in a proper debate.²⁶²

Scientific evidence however was not the focus of Bazelon's approach to hard look review and the fundamental distinction between Bazelon and Leventhal was in their understanding of *what expert administration did*. Bazelon understood the whole of science as a deliberative process and environmental problems required a wider group of interests to participate in that process.²⁶³ This debate did not only focus on the facts but also the broader problems before the agency.²⁶⁴ The aim of Bazelon's hard look review was not to ensure that the facts had been carefully scrutinised but rather that:

Complex questions should be resolved in the crucible of debate through the class of informed but opposing scientific and technological viewpoints.²⁶⁵

²⁵⁹ 439 F.2d 584, 598 (D.C. Cir. 1971).

²⁶⁰ *Ethyl and International Harvester*.

²⁶¹ *Marshall* at 651.

²⁶² *Marshall* at 658.

²⁶³ Bazelon (1977) at 818 and 831.

²⁶⁴ *Table S-3* at 644 and Bazelon (1977) at 827.

²⁶⁵ *International Harvester* at 651.

This was not to say that the task of the agency was merely to broker interest group trade-offs but rather that answers could be found through leading a process of substantive dialogue.²⁶⁶ Administration would need to be flexible and trial and error should have a role to play.²⁶⁷ Thus judicial review would aim to ensure that different groups had a meaningful opportunity to participate and more importantly that the final agency outcome had been a product of a deliberative process.²⁶⁸ To that end he focused upon administrative procedures which would ensure that this would occur.²⁶⁹

Bazelon's approach was perhaps not as well articulated as it should have been. On the one hand his emphasis on the fact/law distinction suggested his stance was in line with Leventhal's.²⁷⁰ Yet his focus on the distinction was more to ensure that the issues could be properly debated rather than to insist methodology be accurately established.²⁷¹ He was also concerned that both the government and public appreciate that decisions such as these were in large part policy decisions requiring democratic input.²⁷² The distinction would stress this point. Likewise some have argued that his approach was about imposing an adjudicatory model onto decision making because in cases such as *International Harvester* he ordered

²⁶⁶ Bazelon (1977) at 831.

²⁶⁷ *EDF v. Ruckelshaus* 439 F.2d 584, 598 (D.C. Cir. 1971).

²⁶⁸ *Table S-3* at 644 and *Marshall* at 652.

²⁶⁹ *Marshall* at 650.

²⁷⁰ Bazelon (1977) at 822; *Ethyl* at 68; and *Table S-3* at 656.

²⁷¹ *Aeschliman v. Nuclear Regulatory Commission* 547 F.2d 622, 631 (D.C. Cir. 1976). Also see McGowan (1977) at 1126.

²⁷² Bazelon (1977).

a right of cross examination.²⁷³ This confusion is partly because Bazelon in his early cases never properly distinguished his approach from one in which the primary concern was ensuring fairness for the individual.²⁷⁴ The confusion over these two points led to concerns that he was making the administrative system too rigid²⁷⁵ and as we shall see his view was ultimately rejected because of this. This interpretation of his approach however is not reconcilable with a close reading of his judgements.

His decision in *NRDC v. Nuclear Regulatory Commission*²⁷⁶ (The *Table S-3* case) is a prime example of his deliberative approach. That case involved the licensing of a nuclear power plant and a rulemaking proceeding by the Nuclear Regulatory Commission. The purpose of the rulemaking was to consider the environmental effects of the nuclear fuel cycle. The Nuclear Regulatory Commission had concluded that nuclear waste only presented an ‘insignificant’ environmental effect and they developed a series of formulae and numerical tables for cost/benefit analysis which rested on this assumption.²⁷⁷ The evidence on which they based this conclusion was a 20 page statement of an expert from the Atomic Energy Commission which was submitted in oral hearings. The expert concluded that technology would be found to solve the problem of nuclear waste disposal.²⁷⁸ He stated that he wanted to show that the ‘bugaboo’ of waste disposal should not

²⁷³ 651.

²⁷⁴ Wright (1974) at 389 in fn. 71.

²⁷⁵ *Table S-3* at 660 per Judge Tamm.

²⁷⁶ 547 F.2d 633 (D.C. Cir. 1976).

²⁷⁷ 637-8.

²⁷⁸ 648.

hold up development of the nuclear industry even though no reliable techniques for disposal had yet been established.²⁷⁹

Bazelon characterised the role of the courts as being one to ensure that ‘genuine opportunities to participate in a meaningful way were provided’ and that there was a ‘thorough ventilation of issues’ through dialogue.²⁸⁰ He noted that while he had argued for adversarial procedures in the past, what was really important were procedures which enhanced dialogue.²⁸¹ In many cases the agency would be in a better position to shape procedure to this need.²⁸² Procedure should not only focus on the facts but on a whole range of issues.²⁸³ In the case before him he concluded such dialogue had not taken place and that because the issue of nuclear waste would be such a long term problem this was clearly not appropriate.²⁸⁴ The conclusions of the Nuclear Regulatory Commission had been based on ‘conclusory’ statements and this was not appropriate where expert administration was leading the community in highly technical and weighty decisions with long term consequences.²⁸⁵ Moreover, the expert who had given the advice had acknowledged at a later date that there were serious long term problems with nuclear waste disposal.²⁸⁶

²⁷⁹ 648-9.

²⁸⁰ 644.

²⁸¹ 656.

²⁸² 644.

²⁸³ 645.

²⁸⁴ 652.

²⁸⁵ 651.

²⁸⁶ 650.

Bazon stressed that there were many different ‘procedural devices’ which the Nuclear Regulatory Commission could have used including

formal conferences between intervenors and staff, document discovery, interrogatories, technical advisory committees comprised of outside experts with differing perspectives, limited cross examination, funding independent research by intervenors, detailed annotation of technical reports, surveys of existing literature, memoranda explaining methodology.²⁸⁷

These procedures are directed at the more technical aspects of decision making but Bazon also stressed in his analysis of the record (much of this in footnotes) the failure of the Nuclear Regulatory Commission to deal with the large value issues involved.²⁸⁸ He concluded his judgement by stating:

It has become a commonplace among proponents of nuclear power to lament public ignorance. The public- the ‘guinea pigs’ who will bear the consequences of either resolution of the nuclear controversy – is apprehensive. But public concern will not be quieted by proceedings like the present.²⁸⁹

He then went on to quote Thomas Jefferson discussing the importance of public participation. The crux of Bazon’s approach was deliberation and although he emphasised the importance of fact finding, this must be understood in a broader context. For him, dialogue was the answer.

There is no doubt that Bazon’s version of hard look review presented a less formulaic approach to judicial review and Bazon stressed the importance of dealing with each case on its own terms.²⁹⁰ Thus there were two potential and perhaps contradictory criticisms of Bazon’s interpretation of hard look review.

²⁸⁷ 653.

²⁸⁸ 650-1. Also see Bazon (1977) at 827, 831 discussing why technical procedures are not enough.

²⁸⁹ 655.

First it threatened to paralyse the administrative process with adjudicative procedure and second it did not provide clear boundaries for the court's task. It is not surprising that his philosophy as espoused in this case was rejected on appeal to the Supreme Court.

5.3 Vermont Yankee

The rejection occurred in *Vermont Yankee Nuclear Power Corp. v. NRDC*²⁹¹ (The *Vermont Yankee* case) and that case is an important landmark in administrative law. It is conventionally understood to stand for the proposition that courts should not impose extra procedural requirements on agencies above and beyond statutory requirements.²⁹² Such a statement was not *prima facie*, a controversial one and had been well accepted since at least the New Deal.²⁹³ In this case, however not only did the Supreme Court state it explicitly but it was also a rejection of Bazelon's version of hard look review.

Vermont Yankee is in many senses a highly ironic decision. On the one hand, the logic behind it was the deshackling of administrative procedure from adjudicative method²⁹⁴ so that agencies could be more responsive and flexible. The decision stresses the important of agencies being able to 'fashion' procedure both to their internal organisational needs and to the problem at hand.²⁹⁵ Judicially

²⁹⁰ 656. For the problems this caused see Jasanoff (1995) at 77 and Scalia (1978) at 372.

²⁹¹ 435 US 519 (1978).

²⁹² 543.

²⁹³ See Chapter Two.

²⁹⁴ Scalia (1978) at 378 and Shapiro (1988) at 164.

²⁹⁵ 544, 548.

imposed procedural requirements the Court feared would lead to ‘Monday morning quarterbacking’,²⁹⁶ in that petitioners could always argue that more procedural requirements should have been required. Likewise some have argued that the problem with procedural requirements is that they may not change the substance of the decision.²⁹⁷ The court only put forward two limited exceptions to their basic rule which were that procedures could be judicially imposed in cases where they were required to afford constitutional due process or where there had been a ‘totally unjustified’ departure from normal agency procedure.²⁹⁸ As already noted, such a decision would not look out of place among the deliberative decisions of the New Deal.²⁹⁹

Yet, *Vermont Yankee* ultimately proved to be an important step in the direction of the rationalist paradigm because the decision was made against the background of the Leventhal/Bazelon debate. By rejecting the subtlety of Bazelon’s thesis they implicitly accepted Leventhal’s.³⁰⁰ Bazelon’s arguments as we saw above were based on a sophisticated appreciation that what mattered was the promotion of dialogue and that procedure was a good way to do that. For him reasoned decision making was a product of a deliberative process and the line between substance and procedure was not a very distinct one. The Supreme Court however, based their reasoning on the logic that procedure (and in particular

²⁹⁶ 547.

²⁹⁷ Stewart (1977) at 740.

²⁹⁸ 542.

²⁹⁹ *Rochester Telephone Corp. v. US* 307 US 125, 138-9 (1939).

³⁰⁰ Scalia (1978) at 354.

adjudicative procedure) could only be obstructive.³⁰¹ As already noted, such misinterpretation was not surprising and it may be argued that in the form Bazelon presented his argument his position was not a viable one. Moreover, Leventhal's hard look review was implicitly affirmed as they remanded the record because it was inadequate. They also throughout the decision emphasised the importance of the administrative record although not stating how such a record may be achieved.³⁰² They thus encouraged an approach in which rigorous methodology was synonymous with reasoned decision making.³⁰³ The *National Lime* case discussed above being a good example of this. As shall we see this ultimately led to problems in the 1980s and ultimately to ossification. Nor did it seem to put a stop to hybrid procedures, many of which had already been enshrined in legislation.³⁰⁴

5.4 OSHA and Leventhal's Hard Look

The confirmation of Judge Leventhal's approach to hard look can be seen in the case law in relation to OSHA rulemaking in the late 1970s. Hard look review had originated with the arbitrary and capricious test but as a judicial philosophy it spread to those cases concerned with the substantial evidence test. The precautionary attitude of the courts was replaced with a concern that decision makers establish that there was some factual basis to their decision. Even Judge Bazelon, in *AFL-CIO v. Marshall* (The *Marshall* case) was hesitant to argue

³⁰¹ See Stewart (1978) at 1814.

³⁰² 547-8. Stewart (1978) at 1817.

³⁰³ Edley (1990) at 228.

³⁰⁴ Clean Air Act Amendments 1977 which created 42 USCA §7607(d). See Chapter Five.

forcefully for a deliberative version of hard look review.³⁰⁵ The rationalist approach can be seen in two decisions decided shortly after *Vermont Yankee*.

In *American Petroleum Institute v. OSHA*³⁰⁶ (*American Petroleum*) the 5th Circuit struck down OSHA's standard in relation to benzene. OSHA decided to regulate at the lowest extent feasible and to this end they set the standard at 1ppm even though they had no evidence (of either safety or harm) at any level below 10 ppm. They did so in accordance with their generic carcinogenic policy³⁰⁷ and a similar approach in relation to their vinyl chloride standard had been upheld by the 2nd Circuit in *Society of Plastics*. In this case the court struck down the standard on the basis that it was not underpinned by substantial evidence. The court stressed that in carrying out judicial review they needed to ensure that OSHA had carried out their task within legislative limits. This would mean that their facts were subject to verification and that any policy choices were within legislative boundaries.³⁰⁸ This description of judicial review was relatively straightforward but the court read the statute in a very restrictive way. Judge Bazelon in *Marshall* interpreted the 'best available evidence' requirement in §655(b)(5) as meaning that there was no expectation of state of the art methodology.³⁰⁹ In contrast, the court here argued that this and the rest of the phrasing in §655(b)(5) Congress was

³⁰⁵ 617 F.2d 636 (D.C. Cir. 1979).

³⁰⁶ 581 F.2d 493 (5th Cir. 1978).

³⁰⁷ See Chapter Three.

³⁰⁸ 497.

³⁰⁹ 658.

requiring OSHA to ‘regulate on the basis of knowledge, rather than the unknown’.³¹⁰ The Court stated that:

OSHA’s failure to provide an estimate of expected benefits for reducing the permissible exposure limit, supported by substantial evidence, makes it impossible to assess the reasonableness of the relationship between expected costs and benefits. This failure means the required support is lacking to show reasonable necessity for the standard promulgated.³¹¹

The Court acknowledged that this construction departed dramatically from that of other decisions but argued that ultimately Congress had intended for OSHA to ‘regulate on the basis of more knowledge and fewer assumptions’.³¹² This decision ultimately went on appeal to the Supreme Court where it was affirmed. That decision, *Industrial Union Department, AFL-CIO v. American Petroleum Institute*³¹³ (The *Benzene* decision) will be discussed in greater detail in the next chapter.

In *Texas Independent Ginners Association v. Marshall*³¹⁴ (Texas *Independent Ginners*) the 5th Circuit once again struck down a decision on the basis that it lacked substantial evidence. This time it was in relation to a cotton dust standard for the cotton ginning industry. The Court described its task as involving the scrutiny of a number of matters. These included:

(a) whether enough facts are available and have been investigated to render rational the making of a policy judgement; (b) whether the factual premises underlying that policy judgement are ‘supported by substantial evidence’ although there may be other conflicting evidence in the record considered as a whole; and (c) whether the policy judgement is reasonably

³¹⁰ 504.

³¹¹ 505.

³¹² 505.

³¹³ 448 US 607 (1980).

³¹⁴ 630 F.2d 398 (5th Cir. 1980).

related to those substantially supported factual premises so that ‘the Secretary carried out his essentially legislative task in a manner reasonable under the state of the record’.³¹⁵

Here rational decision making was defined as decision making which was grounded in the facts and policy would be a logical outgrowth of those facts. This again was a far cry from the majority decision in *Ethyl*. Moreover in this case the court strongly argued that:

OSHA’s estimate of the anticipated cost and expected benefit of proposed regulations are factual findings that must be supported by substantial evidence in the record.³¹⁶

Even issues of feasibility were now being required to be quantified. OSHA could no longer justify their decision on the basis of worker safety. That requirement of cost/benefit analysis was found later by the Supreme Court not to be required³¹⁷ but the need for feasibility to be underpinned by substantial evidence validated by methodology remained. In the language of Leventhal, OSHA now had a heavy informational burden to shift before they could regulate.³¹⁸

6. Conclusion

It is easy to forget the dynamic nature of scope of review doctrine. As has been illustrated, the answers to the two questions posed in Chapter One changed dramatically over the period 1970-1980. That change was brought about less by categorical choice than by historical accident. This is particularly so in relation to the question what should be the evidentiary basis of the decision.

³¹⁵ 405.

³¹⁶ 411.

³¹⁷ *Cotton Dust*.

On this issue, Kenneth Culp Davis, writing in 1980 noted Leventhal's comment in *Portland Cement* about decision making requiring a factual basis. He stated:

The statement probably was not the law before it was written. It may not yet be the general law, but it maybe in the process of coming so.³¹⁹

There is no doubt that Davis was correct in his analysis. The lack of a need to prove facts in rulemaking was recognised in the early 1970s but in 1980 the Supreme Court found in the *Benzene* decision that an agency acting on the 'frontiers of scientific knowledge could only do so if their decision was based on a body of 'reputable scientific thought'.

Moreover with this shift came an evolution in understandings about what should be the role of expert public administration in this area. In 1970, despite the doctrinal chaos that these narratives represent there was a core understanding that the task of risk regulators was essentially a deliberative one. By 1980 however judicial review was grounded in a rationalist paradigm. This occurred via two different means. On the one hand the development of judicial review doctrine was the product of confusion and a loss of perspective over detailed technicalities. As noted above, *Vermont Yankee* can be read as a misinterpretation of Bazelon's views. Thus the rationalist approach was chosen because other options threatened to paralyse the administrative process. On the other hand however the debate about hard look review, like all detailed technical debates about doctrine can be boiled down to one simple principle. As Edley notes:

³¹⁸ *United Steelworkers of America v. Auchter* 763 F.2d 728, 763 (3rd Cir. 1985).

³¹⁹ Davis (1980) at 931.

Bazon and Leventhal were talking about two sides of the same coin that coin being judicial activism motivated by a concern for sound governance.³²⁰

For reasons of distrust of bureaucracy, Leventhal's approach was the more attractive one. It offered up a clear schemata for judicial review uncluttered by procedural requirements from a bygone era. It had however little relationship with what risk regulation agencies did or actually should be doing.

³²⁰ Edley (1990) at 227.

Chapter Five

Benzene and Beyond: Judicial Review in the 1980s and 1990s

On the 2nd July, 1980 the Supreme Court handed down their decision in *Industrial Union Department, AFL-CIO v. American Petroleum Institute*¹ (The *Benzene* decision). The majority decision was an archetype of the rationalist paradigm and as a judgement of the Supreme Court it has been highly influential. In his dissent, Justice Marshall stated:

Because the approach taken by the plurality is so plainly irreconcilable with the Court's proper institutional role, I am certain that it will not stand the test of time. In all likelihood, today's decision will come to be regarded as an extreme reaction to a regulatory scheme.²

Justice Marshall has been proved painfully wrong and in the eighteen years which have elapsed since that decision, scope of review doctrine has fallen into step with the rationalist regime of the majority decision. By the late 1990s, to withstand judicial review, agencies must present an organised administrative record which demonstrates that the decision was within precise legislative boundaries and was based on a rigorous factual analysis. Policy will have a role to play but only in limited cases and ideally in accordance with rationalist principles. While to some this may seem pragmatic, it is incompatible with the actual task of risk regulatory agencies. The subject matter of these agencies is highly politicised and replete with scientific uncertainty. To judge the legality and reasonableness of decision making

¹ 448 US 607 (1980).

² 723.

on these grounds does not promote principles of legitimate public administration. It has resulted in little accountability at the cost of many analytical resources.

This chapter is an analysis of how the rationalist paradigm of scope of review doctrine has been refined in the wake of the *Benzene* decision. To that end it is a description of doctrine in the 1980s and 1990s. The outline of this chapter is as follows. First, the reasoning in the *Benzene* decision is analysed. That decision was the product of rationalist assumptions and it is the most authoritative statement on the subject of what is a 'reasonable' exercise of authority on the part of risk regulatory agencies. Second, the consolidation of the rationalist paradigm in this area is discussed in some detail. In 1983, the Supreme Court handed down their decision in *Motor Vehicles Manufacturers Association v. State Farm Mutual Automobile Insurance Company*³ (The *State Farm* case) which was an explicit approval of Judge Leventhal's rationalist version of hard look review. Third, an overview of the impact of the redefinition of scope of review doctrine is given. It has resulted in analytical opportunism on the part of petitioners. Agencies must attempt to defend all aspects of their methodological reasoning while at the same time judicial review does not emphasise the importance of deliberation. Fourth, these developments in relation to conventional policy are discussed. The courts have promoted cost/benefit analysis and other forms of comprehensive rationality. Fifth, the impact of *Chevron USA Inc. v. NRDC*⁴ (The *Chevron* case) on scope of review must be briefly noted. While seemingly a doctrine that promotes deference, its interpretation in the field of risk regulation has solidified the rationalist

³ 463 US 29 (1983).

⁴ 467 US 837 (1984).

paradigm. Finally, different proposals for reform in this area are explored. There has been great dissatisfaction with scope of review doctrine but very little agreement over what should be the nature, magnitude or basis for reform.

A number of preliminary points should be made. First, the focus here is not on whether courts affirmed or struck down agency action but rather on how courts defined what was legitimate and rational behaviour on the part of expert public administration. It is this which has influenced the way in which agencies have carried out their task. As McGarity has noted:

The key to successful rulemaking is...to make every effort to render the rule capable of withstanding the most strenuous possible judicial scrutiny the first time around.⁵

If that scrutiny is directed in the main at issues of methodology and analysis that is where an agency will place most of its resources. Second, while there will always be cases to the contrary, few people doubt the existence of the developments described here.⁶ The aim of this chapter is not only to describe the rationalist paradigm but also to highlight its problematic nature. Not all the features of the rationalist paradigm are discussed here in detail. As a model it can encompass an entanglement of scope of review doctrine all grounded in the same logic – that the decision of the agency was not factual enough. Third, this period is one in which

⁵ McGarity (1992) at 1401.

⁶ See the following for an analysis of these trends: Jasanoff (1990) at 49-60; Shapiro (1988); Pierce (1988) at 320; McGarity (1992) at 1400; Shapiro & Levy (1987); Applegate (1991) at 282; Seidenfeld (1997); and Davis & Pierce (1994) at 326. The only major area where the deliberative paradigm is obvious is judicial review of decisions under the Fishery and Conservation Act 1976 16 USCA §1801 but that has much to do with specific legislative provisions. See *Fisherman's Dock Co-operative Incorporated v. Brown* 75 F.3d 164 (4th Cir. 1996) and *Associated Fisheries of Maine Inc. v. Daley* 127 F.3d 104 (1st Cir. 1997). Generally speaking however, the move has been that areas originally deliberative have become more rationalist. For example judicial review of FCC decision making. See *Metro Broadcasting Inc. v. FCC* 497 US 547, 569 (1990).

the case load in this area expanded dramatically.⁷ As with the last chapter, there is no attempt to cover the case law in a comprehensive fashion except in regard to rulemaking under the Occupational Safety and Health Act (OSH Act).⁸

1. The *Benzene* Decision

In the *Benzene* decision the Supreme Court affirmed the decision of the 5th Circuit in *American Petroleum Institute v. OSHA*⁹ (The *American Petroleum* case) by a five to four majority. The majority included a plurality opinion written by Justice Stevens which Justice Stewart, Chief Justice Burger and Justice Rehnquist concurred in the result of.¹⁰ Justice Powell also partly concurred. There was a sole dissenting judgement by Justice Marshall whom Justices Brennan, White and Blackmun joined.

The *Benzene* decision was essentially a case about the ‘rationality of the agency’s decision making process’.¹¹ Moreover it was a case in which the judicial reasoning was primarily driven by a desire to constrain agency power. This is exhibited most explicitly in Justice Rehnquist’s judgement where he attempted to revive the non-delegation doctrine.¹² As in the 1930s the non-delegation doctrine¹³

⁷ Schuck & Elliot (1990) at 997 and Wald (1987) at 718. Also see Wald (1994) for a discussion of a year’s caseload in this area for the D.C. Circuit.

⁸ See Table in Chapter Four.

⁹ 581 F.2d 493 (5th Cir. 1978). See Chapter Four for the facts of this case.

¹⁰ The later two giving concurring judgements.

¹¹ Rabin (1983) at 1184.

¹² Also see Lowi (1979); Lowi (1987); Schoenbrod (1993); Edley (1990) at 89-91; and Ely (1980). As in the 1930s those promoting the non-delegation doctrine were ultimately unsuccessful. See Stewart (1987) arguing that it is impossible to distinguish between impermissible and permissible delegations. Also see Krent (1994) and Strauss et al (1995) at 67-137.

was part of a rationalist paradigm of expert public administration. Justice Rehnquist argued that the doctrine served three important functions.¹⁴ First, it ensured that ‘important choices of social policy’ were made by Congress. This *prima facie* cast the administration as an appendix to democracy. Second, he argued that the doctrine required that Congressional grants of authority should not be vague but rather explicit enough to guide delegated discretion.¹⁵ Applying this to the instant case, he argued that:

I have no doubt that the provision at issue [§655(b)(5)], standing alone, would violate the doctrine against uncanalised delegations of legislative power.¹⁶

Finally, he also argued that in carrying out judicial review the court must be able to test agency discretion against ‘ascertainable standards’.¹⁷ He argued that the phrase ‘feasible’ in §655(b)(5) rendered ‘meaningful judicial review impossible’.¹⁸

While the plurality decision is not explicit in its reliance on the non-delegation doctrine it is clearly influenced by an appreciation of these factors and the judgement is an attempt to ‘define more precisely the specific contours of the OSH Act’.¹⁹ The plurality opinion made it clear that the OSH Act did not give ‘unbridled’ discretion.²⁰ Chief Justice Burger was concerned to ensure that OSHA

¹³ *A.L.A. Schechter Poultry Corp. v. United States* 295 US 495 (1935) and *Panama Refining Co. v. Ryan* 293 US 388 (1935).

¹⁴ 685.

¹⁵ 686.

¹⁶ 675.

¹⁷ 686.

¹⁸ 686.

¹⁹ *Public Health Research Group v. Tyson* 796 F.2d 1479, 1484 (DC Cir. 1986) (The *Tyson* case).

²⁰ 614 per Justice Stevens and at 662, 663 per Chief Justice Burger.

had engaged in ‘reasoned consideration’²¹ and Justice Powell was adamant that there must be a close relationship between OSHA’s policy and the governing law.²² To that end there are two important aspects to the majority’s decision. First, the majority interpreted the OSH Act in such a way as to require OSHA to establish that a ‘significant risk’ existed before any regulatory action could take place.²³ Secondly, the court equated ‘substantial evidence’ with ‘reputable scientific thought’.

1.1 ‘Significant Risk’ Requirement

In an act of highly creative interpretation, the majority in the *Benzene* decision required that OSHA establish a threshold of ‘significant risk’ before regulating.²⁴ This requirement was not easily reconcilable with the actual wording of the Act that defined a standard as a rule setting conditions which were ‘reasonably necessary or appropriate to provide safe or healthful employment’.²⁵ While ‘reasonably necessary’ clearly suggested there was some pragmatic constraint on discretion it did not obviously require that that restraint should be a requirement of a threshold finding of a ‘significant risk’. The legislative sources for imposing the ‘significant risk’ requirement were opaque.²⁶ A number of reasons

²¹ 663 per Chief Justice Burger referring back to the case of *In Re Permian Base Rate Area Cases* 390 US 747, 792 (1968) which is concerned with ensuring the agency has an appropriate ‘method’ of regulation.

²² 670.

²³ For a discussion of this aspect see Sunstein (1990) at 194-7; Sunstein (1997) at 291; Dill (1984) at 982.

²⁴ 639-640 per Justice Stevens; 662 per Chief Justice Burger; and 665 per Justice Powell.

²⁵ §552(8).

²⁶ See Justice Marshall's stinging attack on the majority but also note Sunstein (1990) at 196 defending the reasoning of the case.

were given by the majority for the creation of a threshold or ‘subsidiary’ test. At a purely doctrinal level the plurality argued that the test was implicit in the words ‘reasonably necessary’ as set out in §652(8). Moreover the test was required because otherwise §652(8) would be meaningless. As Justice Stevens stated:

In the absence of a clear mandate in the Act, it is unreasonable to assume that Congress intended to give the Secretary the unprecedented power over American industry that would result from the Government’s view of s.3(8) [§652(8)] and s.6(b)(5) [§655(b)(5)], coupled with OSHA’s cancer policy.²⁷

Reference to both the emergency temporary standards provisions²⁸ and legislative history, they argued, supported such a view.²⁹ The reasoning of the majority was harmonious with the view that legislation must provide clear boundaries for agency action. The court did not find it acceptable that Congress had not provided for such boundaries and thus created their own. In contrast, Justice Rehnquist found that such construction was not viable and he simply invalidated §655(b)(5) on the basis of the non delegation doctrine.³⁰

In line with their reasoning, the majority argued that Congress could not have possibly intended for OSHA to regulate for a risk free workplace and as such to regulate ‘de minimis risks’.³¹ Moreover OSHA could not be trusted not to regulate such risks and thus an express limitation must be required. Safe did not mean risk free.³² As noted by Chief Justice Burger:

²⁷ 645.

²⁸ fn 45 per Justice Stevens.

²⁹ 646-652.

³⁰ 687.

³¹ 642, 664 per Chief Justice Burger; and 669 per Justice Powell.

³² 642.

Perfect safety is a chimera; regulation must not strangle human activity in the search of the impossible.³³

The problem of regulating benzene however was not one of regulating a *de minimis* risk but rather an *uncertain* risk. OSHA's decision was based on the fact that in light of the consequences, uncertainties and their past experiences such a course of action was prudent. By 1988, research had proved them correct and it was established that even at 1ppm benzene could still cause serious long term harm.³⁴

Justice Stevens also attempted to define the concept of 'significant risk' more accurately but in doing so created an uneasy tension. On the one hand he stated that the test of significant risk should not be a 'mathematical straitjacket' and nor was OSHA required to 'calculate the exact probability of harm'.³⁵ Yet on the other hand his discussion did suggest that some form of quantification was necessary. He noted:

Some risks are plainly acceptable and others are plainly unacceptable. If, for example, the odds are one in a billion that a person will die from cancer by taking a drink of chlorinated water, the risk clearly could not be considered significant. On the other hand, if the odds are one in a thousand that regular inhalation of gasoline vapors that are 2% benzene will be fatal, a reasonable person might well consider the risk significant and take appropriate steps to decrease or eliminate it.³⁶

Defining a 'significant risk' in quantifiable terms was attractive because it made the legislative boundaries more precise.³⁷ This was despite the fact that numerical calculations could be quite arbitrary because of the scientific uncertainties involved.

³³ 664.

³⁴ Breyer (1993) at 15.

³⁵ 655.

³⁶ 655.

³⁷ 646 per Justice Stevens and 663 per Chief Justice Burger.

1.2 The Substantial Evidence Test

The requirement of this new factual threshold was also accompanied by a confirmation that the substantial evidence test was to be understood in rationalist terms. This is best illustrated by the plurality's treatment of decision making under scientific uncertainty. Justice Stevens, while recognising the problem of scientific uncertainty, stated:

Thus so long as they are supported by a body of *reputable scientific thought*, the Agency is free to use conservative assumptions in interpreting data with respect to carcinogens, risking error on the side of over protection rather than under protection [emphasis supplied]³⁸

Substantial evidence was defined in relation to scientific knowledge and the quality of the substantial evidence was to be judged on the quality of the science. This was an explicit statement of Judge Leventhal's views and it based the authority of OSHA squarely on methodology. The starting point for analysis was *scientific* evidence and reliance on policy was restricted to marginal cases.³⁹ In this case Justice Stevens argued that OSHA had not even attempted to 'carry its burden of proof'.⁴⁰ The prime example he gave of such failure was the fact that OSHA rejected industry testimony that a dose response curve could be constructed which suggested benzene exposure only presented a *de minimis* risk at low levels of exposure. In doing so, OSHA did not scrutinise this evidence carefully⁴¹ and thus their decision was not underpinned by substantial evidence. He disallowed OSHA's attempt to set a limit for the exposure to benzene in the workplace at 1ppm because

³⁸ 656.

³⁹ To the point that assumption cannot really be a basis for a decision. See Schwartzbauer & Shindell (1988) at 22.

⁴⁰ 653. Such language being reminiscent of Judge Leventhal.

⁴¹ 654.

there was only evidence of a 'significant risk' at 10 ppm. There was no discussion of the problems of scientific uncertainty, the consequences of such a risk or the policy of worker protection. Under the majority's interpretation of the substantial evidence test 'evidence on the record' was now equated solely with scientific evidence and not any information on the record whatever its form might take.⁴²

This reading of substantial evidence added strong support to the argument that a finding of 'significant risk' would need to be based on some form of quantification. Even Chief Justice Burger who recognised the important role policy could play in decision making suggested that quantification was required when possible⁴³ and the burden was on OSHA to establish that quantification was not possible. Justice Powell stated:

[I]s there substantial evidence supporting OSHA's determination that available quantification techniques are too imprecise to permit a reasonable numerical estimate of the risks?⁴⁴

In asking this question Justice Powell presumed that the task of OSHA was fact finding and thus OSHA would only take into account hard scientific data. This has, as we shall see, caused many problems for risk assessment laden as it is with value assumptions.⁴⁵

⁴² Only Justice Powell (dissenting on this point) took the more traditional 'evidence on the record' approach.

⁴³ 663.

⁴⁴ 667.

⁴⁵ *United Steelworkers of America v. Marshall* 647 F.2d 1189, 1246 (D.C. Cir. 1980) (The *United Steelworkers* case).

1.3 The Dissent

In his dissenting opinion Justice Marshall described the plurality's opinion as 'extraordinarily arrogant and extraordinarily unfair'.⁴⁶ It was arrogant because he argued they were effectively engaging in de novo review. It was unfair because:

its characterization of the Secretary's report bears practically no resemblance to what the Secretary actually did in this case.⁴⁷

Such a statement is unnervingly accurate and goes to the heart of the problem in this area. In contrast to the majority's characterisation, Justice Marshall from the outset described the problem that OSHA was attempting to handle.⁴⁸ Moreover he summarised both the factual and policy basis of the standard.⁴⁹ He constantly stressed that consideration of both aspects was a vitally important aspect of the exercise of responsible administrative discretion in this area.⁵⁰ While the majority seemingly feared that any approach not grounded in a rationalist paradigm would lead to unchecked discretion, Justice Marshall's decision is a classic example of a searching review under the deliberative paradigm.

His appreciation of the problem of worker protection that OSHA was attempting to solve did not result in a deferential or lax approach. One of his primary concerns was that OSHA had not 'blindly' relied on their generic carcinogen policy.⁵¹ He argued that they had not done so because although there was no disagreement that the policy should apply OSHA still gathered over 50

⁴⁶ 695.

⁴⁷ 695.

⁴⁸ 691.

⁴⁹ 689.

⁵⁰ 706.

⁵¹ 695.

volumes of evidence and conducted 17 days of hearings. The witnesses included were not only scientists but political economists and members of the work force. It was not so much the quantity of the evidence collected which concerned him but what OSHA considered. Thus he examined in detail OSHA's technical and policy reasons and what they had taken into account. These included the type of uncertainties involved including the fact that leukaemia has a long latency period and that although the evidence was poor it did suggest that the risk would be reduced by a lowering in exposure levels. Moreover from a feasibility perspective in many cases industries were complying with the 1ppm level already and/or replacing benzene with other substances. He did not simply take evidence at face value. Thus in regards to the industry evidence that extrapolation from the data should have been done differently, he noted that the witness who submitted the evidence admitted both the uncertainties in the data and the fact that the industry extrapolation was only 'slightly better than a guess'.⁵²

In light of this searching analysis Justice Marshall upheld OSHA's standard. In doing so he fully appreciated the problems of scrutinising analysis in cases of uncertainty and thus focused on what OSHA was attempting to achieve. Thus the difference between the majority and minority was not so much ideological⁵³ but rather what should be the role of public administration. In the case of the majority, the role should be one of fact finder, while in the case of the minority it was as a problem solver.

⁵² 702 (fn. 23).

⁵³ The *Benzene* decision is often seen as consistent with the general shift to the right of the Court.

2. Scope of Review and the Rationalist Paradigm: A Clear Agenda?

The *Benzene* decision had a profound impact upon many aspects of risk regulation. First, the case while not explicitly vacating OSHA's generic cancer policy, clearly made it unworkable and although the policy is still in place it is not used. Second, the case affirmed the rationalist approach of the Interagency Regulatory Liaison Group and led directly to the National Research Council (NRC) report *Risk Assessment in the Federal Government: Managing the Process*.⁵⁴ That document became the primer for all risk regulatory agencies and was discussed in Chapter Three. Third, agencies and courts interpreted the case as requiring OSHA to establish at least a 1 in 1000 risk before regulating.⁵⁵ There have been cases where the agencies have declined to act because even though there is a strong suggestion of a risk, the evidence is not enough to support such a threshold finding.⁵⁶ Finally, the Supreme Court implicitly applied Judge Leventhal's 'hard look review' which had been accepted by the lower courts. It was however not the most authoritative decision in this regard. Rather that was the Supreme Court decision in *Motor Vehicles Manufacturers Association v. State Farm Mutual Automobile Insurance Company*⁵⁷ (The *State Farm* case).

⁵⁴ NRC (1983).

⁵⁵ *International Union, UAW v. Pendergrass* 878 F.2d 389, 392 (D.C. Cir. 1989) (The *Formaldehyde* case). In *ASARCO v. OSHA* 647 F.2d 1 (9th Cir. 1981) and NRC (1994) at 36.

⁵⁶ *ASARCO Inc v. OSHA* 647 F.2d 1 (9th Cir. 1981) and *Consumer Federation of America v. CPSC* 883 F.2d 1073 (D.C. Cir. 1989).

⁵⁷ 463 US 29 (1983)

2.1 *State Farm* and the Rationalist Interpretation of the Arbitrary and Capricious Test

State Farm was concerned with the decision of the National Highway and Traffic Safety Administration (NHTSA) to rescind passive restraint requirements for cars. In 1977 NHTSA after a long rulemaking process issued a standard which slowly phased in a duty of manufacturers to include either a passive seatbelt or airbags in a car. In 1981, before the end of the phasing in period, NHTSA rescinded the standard. The rescission of the airbag standard was part of a package of car industry relief policies promised by the Reagan administration. The Court held that in rescinding the standard, NHTSA had acted arbitrarily and capriciously by failing to show a reasoned basis for their decision. As such, it sent a strong message to the Reagan administration, that the court would not blindly condone their anti-regulatory policy. The *State Farm* decision, from an ideological standpoint, stood in direct opposition to the decision in *Benzene*. Yet from a legal perspective it was quite consistent. As such it demonstrates that perceptions about public administration are not always ideologically driven. Principles of good administration and good politics can diverge.

The conclusion of the court turned on the definition of what was arbitrary and capricious. Justice White stated:

The scope of review under the 'arbitrary and capricious' standard is narrow and a court is not to substitute its judgement for that of the agency. Nevertheless, the agency must examine relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choices made.' *Burlington Truck Lines Inc. v. United States* 371 US 156, 168 (1962). In reviewing that explanation we must 'consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgement'. *Bowman Transportation Inc. v. Arkansas- Best Freight System Inc. supra* 419 US at 285; *Citizens to Preserve Overton*

Park v. Volpe *supra* 401 US at 416. Normally an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the decision, offered an explanation for its decision which runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.⁵⁸

This is a necessarily long quote and a number of features should be noted. First, the test was undoubtedly a statement of hard look review and required the court to scrutinise all aspects of the decision carefully. Second, the test ‘captured a decade’s worth of doctrinal evolution’⁵⁹ and as such did not put forward a particularly coherent framework for scope of review.⁶⁰ Thus for example the requirement that the Court should only intervene where there has been a ‘clear error of judgement’ suggested a less stringent standard of review than that of the agency having to articulate a satisfactory explanation of the ‘rational connection between the facts found and the choices made’. Third, the test required that the reviewing court should be both deferential and vigilant.⁶¹ This was consistent with previous case law but neither *State Farm* nor the case law afterwards suggested how these two levels of scrutiny should be balanced.⁶² In light of these ambiguities, approaches under this standard varied remarkably even within the field of risk regulation.⁶³

⁵⁸ 43.

⁵⁹ McGarity (1992) at 1411.

⁶⁰ Pierce (1995a) at 1119.

⁶¹ *Chemical Manufacturers Association v. EPA* 870 F.2d 177, 200 (5th Cir. 1989) (The *Organic Compound* case).

⁶² *NRDC v. EPA* 16 F.3d 1395, 1401 (4th Cir. 1993) (The *Dioxin* case); *Reynolds Metals Co v. EPA* 760 F.2d 549, 558 (4th Cir. 1985) (The *Reynolds* case); *American Iron and Steel Institute v. EPA* 115 F.3d 979, 992 (D.C. Cir. 1997) (The *Great Lakes* case); and *NRDC v. Administrator of EPA* 902 F.2d 962, 967 (D.C. Cir. 1990) (The *Air Particulate* case).

⁶³ Compare the quite deferential review in *NRDC v. EPA* 824 F.2d 1211 (D.C. Cir. 1987) (The *Volatile Organic Compound* case) with the very intrusive review of *Small Refiner Lead Phase Down Taskforce v. EPA* 705 F.2d 506 (D.C. Cir. 1983) (The *Small Refiner* case). Also see *Matter of Bell Petroleum Services Inc.* 3 F.3d 889 (5th Cir.

Moreover, because generalist courts were required to review very detailed records some judges were clearly more capable of doing so than others.⁶⁴

The ‘arbitrary and capricious’ standard became a ‘catch all label for attacks on the agency’s rationale, its completeness or logic’⁶⁵ but despite the ambiguities two clear grounds of review could be established which were consistent with the reasoning in *Benzene*. The first was that the agency needed to keep within legislative boundaries.⁶⁶ This is of course entirely proper but the court now required a closer and less purposive reading of the legislation. *Chevron* and the Supreme Court’s promotion of textualism confirmed this.⁶⁷ The agency thus had to justify their legal interpretation of a statute in some detail. Second, the courts needed to ensure that the agency had a factual basis for their decision.⁶⁸ By factual basis, the courts meant evidence which had been rigorously validated by methodology and thus science was the ‘touchstone’ for scope of review.⁶⁹ The sufficiency of reasons would be judged on the sufficiency of the facts.⁷⁰ Thus in *State Farm*, NHTSA had not produced enough data to suggest that their earlier finding that the use of passive restraints increased safety was no longer the case and

1993)(The *Bell Petroleum* case) in which the majority and dissent present very solid cases for their point of view. Also see Young (1996).

⁶⁴ A good example of a judge comfortable with review of technical records is Judge Wald. See *Small Refiner; Leather Industries of America v. EPA* 40 F.3d 392 (D.C. Cir. 1994)(The *Leather Industries* case); and *State of Ohio v. Department of Interior* 880 F.2d 432 (D.C. Cir. 1989). For very deferential analysis of other judges see *Volatile Organic Compound and Eagle Picher Industries Inc v. EPA* 822 F.2d 132 (D.C. Cir. 1987).

⁶⁵ Wald (1997) at 233.

⁶⁶ *Dioxin* at 1402 and Wald (1996) at 10185.

⁶⁷ See Section 5 below.

⁶⁸ For a discussion of evidence in *State Farm* see Sunstein (1983) at 183.

⁶⁹ See Edley (1990) at 64. See *Small Refiner*.

⁷⁰ *Troy Corp. v. Browner* 120 F.3d 277, 284 (D.C. Cir. 1997) (The *Troy* case).

thus had not engaged in 'reasoned analysis'. Policy had a minimal role to play and could only be substantially relied upon where it had been mandated by the legislation.

The practical implication of this was, as seen in the last chapter, an increased emphasis on the administrative record. All reasons and explanations were required to be on the record in an organised form⁷¹ and it was the only evidence to be analysed on review.⁷² The agency would need to distinguish law, fact and policy so as to verify that their decision had a firm factual basis and was within legislative boundaries.⁷³ In particular the record needed to establish that there was a 'connection between the facts found and the choices made'.⁷⁴ Some legislative reforms from the late 1970s onwards explicitly required that agencies state their factual basis.⁷⁵ Thus for example under the Clean Air Act Amendments 1977 the EPA was now required to include in its 'statement of basis and purpose' a summary of:

(A) the factual data on which the proposed rule is based;

(B) the methodology used in obtaining the data and analyzing the data; and

⁷¹ *Bell Petroleum* at 905 but note dissent.

⁷² *Centre for Auto Safety v. Federal Highway Administration* 956 F.2d 309, 314 (D.C. Cir. 1992) (The *Highway Bridges* case); and *Thompson v. Clark* 741 F.2d 401, 402 (D.C. Cir. 1984) (The *Thompson* case); *American Lung Association v. EPA* 134 F.3d 388, 391 (D.C. Cir. 1998) (The *American Lung Association* case); *Simms v. NHTSA* 45 F.3d 999, 1004 (6th Cir. 1995) (The *Simms* case); and *Reynolds* at 558.

⁷³ Edley (1990) at 30.

⁷⁴ *Dioxin* at 1401; *Madison Gas and Electric Co. v. EPA* 25 F.3d 526, 529 (7th Cir. 1994); *Rybachek v. EPA* 904 F.2d 1276, 1284 (9th Cir. 1990) (The *Rybachek* case); *Organic Compounds* at 198-9; *EDF v. EPA* 852 F.2d 1316, 1326 (D.C. Cir. 1988); and *South-western Pennsylvania Growth Alliance v. Browner* 121 F.3d 106, 117 (3rd Cir. 1997) (The *South-western Pennsylvania* case).

⁷⁵ Consumer Product Safety Act 15 USCA §2058 amended by Pub. L. 97-85 (1985).

(C) the major legal interpretations and policy considerations underlying the proposed rule.⁷⁶

These amendments were not only an affirmation of the courts' approach⁷⁷ but also limited any future evolution of scope of review doctrine. By defining that the only basis on which an agency should act was the facts, agencies were discouraged from more deliberative approaches to a problem. This point was illustrated in Chapter Three. Agencies could no longer rest decisions on experience, intuition or in many cases policy.

Demands that the courts should be deferential must be understood in this rationalist context.⁷⁸ As Judge Tatel noted in *American Lung Association v. EPA*⁷⁹

Judicial deference to decisions of administrative agencies like EPA rests on the fundamental premise that agencies engage in reasoned decision making.

By reasoned decision making he meant careful scientific analysis of the facts. In that case he argued that the Administrator had not been precise enough or engaged in a 'responsible treatment of the facts' because she had not gathered and analysed enough data for her conclusion that sulphur dioxide bursts were only ever 'localised, infrequent and site specific' and thus did not affect asthmatics.⁸⁰ Even if

⁷⁶ 42 USCA §7607(d)(3)(A)-(C).

⁷⁷ The amends strongly reflect Judge Leventhal and the D.C. Circuit's rationalist outlook in *Portland Cement Association v. Ruckelshaus* 486 F.2d 375 (D.C. Cir. 1972); *Essex Chemical Corporation v. Ruckelshaus* 486 F.2d 427 (D.C. Cir. 1973); and *Kennecott Copper Corporation v. EPA* 462 F.2d 846 (D.C. Cir. 1972).

⁷⁸ *Appalachian Power Co. v. EPA* 135 F.3d 791, 802 (D.C. Cir. 1998) (The *Appalachian Power* case); *Commonwealth of Pennsylvania v. EPA* 932 F.2d 269, 272 (3rd Cir. 1991) (The *Commonwealth of Pennsylvania* case); *Reynolds* at 559 and *Air Particulate* at 967.

⁷⁹ 134 F.3d 388,392 (D.C. Cir. 1998) (The *American Lung Association* case).

⁸⁰ 392.

such a conclusion was common-sense she would be still required to engage in analysis.

Another result of hard look review was that the role of both the petitioners and public administration was described in terms of whether they had shifted their evidentiary burden. Thus if a petitioner did not bring forward data challenging the data of the agency their case would be likely to fail.⁸¹ Likewise if the petitioner did bring forward evidence which did challenge the findings of the agency, the agency would not have discharged their burden if they had not dealt with it adequately.⁸² There was little consideration of other issues such as policy or whether a matter had been properly debated. The end product could be uncomfortably perverse. Thus for example in *Centre for Auto Safety v. Peck*⁸³ (The *Peck* case) Judge Scalia, then on the D.C. Circuit, spent nearly 30 pages analysing the methodology of a cost/benefit analysis in relation a rule concerned with reducing the primary impact test speed for bumper bars from 5mph to 2.5mph. He affirmed the rule because the analysis was so ‘painstaking’.⁸⁴ In actual fact, the rule had been passed in accordance with a White House policy similar to that in *State Farm* and as Judge Skelly Wright noted in dissent:

⁸¹ *Oz Technology Inc v. EPA* 129 F.3d 631, 635-6 (D.C. Cir. 1997)(The *Oz Technology* case) stating that the petitioner did discharge their burden of producing formal data. Also see *NRDC v. EPA* 822 F.2d 104, 120 (D.C. Cir. 1987). Although this would not seem to be the case where industry claims economic dislocation. See *Love v. Thomas* 858 F.2d 1347 (9th Cir. 1988)(The *Love* case).

⁸² *Competitive Enterprise Institute v. NHTSA* 45 F.3d 481, 486 (D.C. Cir. 1995)(The *CEI III* case). Also see *Corrosion Proof Fittings v. EPA* 947 F.2d 1201, 1214 (5th Cir. 1991) (The *Corrosion Proof* case) in relation to the substantial evidence test.

⁸³ 751 F.2d 1336 (D.C. Cir. 1985).

⁸⁴ 1369.

[The] NHTSA proceeded to perform a cost benefit analysis that appears, given the contortions that the agency went through to reach its final conclusions, to have been solely a formalistic exercise aimed at justifying a preordained result.⁸⁵

This highlights one of the most troubling aspects of the rationalist paradigm - both courts and agencies can expend many resources on analysis but yet the real reason why a decision is being made is not made explicit. Moreover because of the uncertainties involved, methodology can be manipulated to support any outcome. It is a very expensive and not very accountable way of making decisions.

2.2 OSHA and the Substantial Evidence Test

During this period and in light of the *Benzene* decision the substantial evidence test developed in a similar fashion. So much so that the two standards of review became more alike.⁸⁶ The substantial evidence test also required that there be a 'rational connection between the facts found and the choices made'⁸⁷ and that decisions be primarily based in scientific methodology. Moreover, as illustrated in *Benzene*, OSHA under this test was required to show that such factual inquiries had taken place within clearly delineated legislative boundaries.⁸⁸ Most judges still argued that the substantial evidence test either applied primarily to facts⁸⁹ or that it

⁸⁵ 1371.

⁸⁶ See the description of the evidentiary requirement in *Highway Bridges* at 314 and *Troy* at 282-4. See also *Texas Independent Ginners Association v. Marshall*, 630 F.2d 398, 404 (5th Cir. 1980) (The *Texas Independent Ginners* case); *National Grain and Feed Association v. OSHA* 866 F.2d 717, 728 (5th Cir. 1989) (The *National Grain* case); and *Aman & Mayton* (1993) at 455.

⁸⁷ *Corrosion Proof* at 1214.

⁸⁸ *Shell Chemical Co. v. EPA* 826 F.2d 295, 297 (5th Cir. 1987).

⁸⁹ *Asbestos Information Association of North America v. OSHA* 727 F.2d 415, 422 (5th Cir. 1984) (The *Asbestos Information* case) and *Builders and Construction Trades Department v. Brock* 838 F.2d 1258, 1264 (D.C. Cir. 1988) (The *BCT* case).

required a ‘harder look’ than the arbitrary and capricious test.⁹⁰ This latter comment is not particularly meaningful when one notes that the level of deference under the arbitrary and capricious standard was indeterminate.⁹¹

The *Benzene* decision’s interpretation of ‘substantial evidence’ and the requirement of ‘reputable scientific thought’ became an onerous one. OSHA was required to ‘demonstrate substantial evidence for all matters of determinable fact’ and articulate its reasons for choosing among scientific predictions.⁹² The courts would inquire into methodology in great detail.⁹³ This does not mean that they would always strike down the decision for lack of substantial evidence but that in ensuring that the decision had a ‘rational basis’ the methodology was of primary importance. Thus the courts would inquire into the quality of the studies underpinning risk assessments;⁹⁴ assess the experimental conditions of studies;⁹⁵ assess the validity of OSHA’s choices from a range of data⁹⁶; and compare studies of OSHA with those of petitioners.⁹⁷ Records would need to be carefully ordered.⁹⁸

⁹⁰ *Corrosion Proof* at 1213-4; *Alabama Power Co. v. OSHA* 89 F.3d 740, 744 (11th Cir. 1996) (The *Alabama Power* case); *Asbestos Information* at 421; and *National Grain* at 728.

⁹¹ Compare the very intense level of scrutiny under the arbitrary and capricious test in *Chemical Manufacturers v. EPA* 28 F.3d 1259 (D.C. Cir. 1994) (The *MDI* case) with the quite deferential standard of review under the substantial evidence test in *American Dental Association v. Martin* 984 F.2d 823 (7th Cir. 1993) (The *American Dental* case).

⁹² *Formaldehyde* at 392.

⁹³ *Asbestos Information* at 421.

⁹⁴ *Asbestos Information* at 421 and also see *Gulf South Insulation v. CPSC* 701 F.2d 1137, 1146 (5th Cir. 1983) (The *Gulf South* case).

⁹⁵ *Formaldehyde* at 393 and *ASARCO v. OSHA* 746 F.2d 483, 493 (9th Cir. 1984) (The *ASARCO* case).

⁹⁶ *Ibid.* at 385.

⁹⁷ *National Grain* at 740.

⁹⁸ *American Dental* at 833 arguing the record in that case was a ‘hodge podge of findings’.

In some cases they would also stress the importance of peer review⁹⁹ but in general this was a second place concern. While scientific uncertainty¹⁰⁰ was still accepted as a problem it merely made quantification more difficult.

The impact of case law on OSHA's standard setting activities was hard felt. OSHA continued to set standards even though in some cases they did not have the evidence which was required under a rationalist paradigm. An example of this was the generic air contaminants standard for 428 toxic substances under §655(b)(5) which they issued in 1989. The standard updated recommendations of the American Conference of Governmental Industrial Hygienists (ACGIH) which were new or more protective than standards already in place. The ACGIH has been a historical and well respected source for such standards and this was an attempt by OSHA to update regulation in this area in light of new evidence. If rulemaking had proceeded on a case by case basis many workers would not have been protected. Although the standard prescribed different 'permissible exposure levels' (PELS) for each substance the method of reduction was in many cases the same. Moreover, OSHA was passing the standard knowing that it would need to be updated again in several years time to take into account new research.¹⁰¹ The ACGIH however did not base their permissible exposure limits (PELs) on risk assessments.¹⁰²

⁹⁹ *Asbestos Information* at 421.

¹⁰⁰ *BCT* at 1264; *Asbestos Information* at 425; *ASARCO* at 490; *Formaldehyde* at 392; and *United Steelworkers* at 1206-7; *National Grain* at 729; and *Texas Independent Ginners* at 404.

¹⁰¹ 977.

¹⁰² 62 Fed. Reg. 1498 (January 19, 1997).

Like nearly all OSHA standards, the rule was challenged by both industry and labour unions and in *AFL-CIO v. OSHA* (the *Air Contaminants* case)¹⁰³ the 11th Circuit vacated the standard on the grounds that there was no substantial evidence on which OSHA based their decision. From a deliberative perspective, the case should and could have been challenged on the grounds that OSHA had blindly applied the ACGIH standards and while this argument was raised, the court dismissed it out of hand.¹⁰⁴ What was fatal for the decision was that the methodological basis for decision making was extremely poor.

Judge Fay for the Court, stated that while generic rulemaking was possible, substantial evidence was required for each separate substance.¹⁰⁵ As such OSHA would need to establish in relation to each substance that there was substantial evidence of a significant risk, that the proposed standard would reduce that risk, and that the standard was both technologically and economically feasible. This large methodological burden offset any advantages OSHA would gain through a generic standard. On the first ground the Court found that OSHA had not made a finding of significant risk. OSHA had grouped the substances into 18 different categories depending on their health effects and then discussed a number of studies. They broadly concluded that the standard would result in saving 683 lives and avoiding 55,000 occupational illnesses annually.¹⁰⁶ Moreover the court found that OSHA had not established that the standards would reduce a risk. Rather, OSHA

¹⁰³ 965 F.2d 962 (11th Cir. 1992). For critical discussions of this case see Scordo (1994) and Strader (1993).

¹⁰⁴ 984.

¹⁰⁵ 972.

¹⁰⁶ 975.

taking into account scientific uncertainty had factored in a number of ‘safety factors’ to each of the PELs. The safety factor differed with each substance depending on the quality of the data. This use of differentiated safety factors had not only been condoned by other courts but actively promoted as being a more accurate way of accounting for scientific uncertainty.¹⁰⁷ The Court here however rejected the use of safety factors when the evidence was incomplete or inadequate.

The court stated:

The lesson of *Benzene* is clearly that OSHA may use assumptions, but only to the extent that those assumptions have some basis in reputable scientific evidence. If the agency is concerned that the standard should be more stringent than even a conservative interpretation of the existing evidence supports, monitoring and medical testing may be done to accumulate the additional evidence needed to support that more protective limit. *Benzene* does not provide support for setting standards below the level substantiated by the evidence.¹⁰⁸

This statement is a strong restatement of the *Benzene* decision. Not only did the decision have to be primarily grounded in scientific knowledge but the assumptions taken into account also needed to be as well. Broad policies of worker protection had no role. ‘Substantiated by the evidence’ had thus become a stringent test in which proof was required before any regulatory action could be taken. The end result of these cases is that the substantial evidence test was now the ‘calculus of evidence’ which Justice Frankfurter in the 1950s said it should never be.¹⁰⁹

¹⁰⁷ See *Leather Industries* at 400.

¹⁰⁸ 979.

¹⁰⁹ *Universal Camera Corp. v. NLRB* 340 US 474, 488-9 (1951).

3. Analytical Opportunism: Rationalist Expertise in the Courts

These new definitions of scope of review doctrine had a dramatic impact not only upon the way in which cases were decided but also the way in which they were argued. In particular the focus on methodology gave rise to a problem of analytical opportunism.¹¹⁰ Any apparent flaw in methodology would be used by petitioners as an argument to support their view that a decision was arbitrary and capricious or not based on substantial evidence. Thus for example in *Reynolds Metals Co. v. EPA*¹¹¹ (The *Reynolds* case) the petitioners put forward the following arguments in challenging effluent limitations for the can making industry.

[T]he errors argued by petitioners on this appeal are: that the effluent limitations for total toxic organic waste were so marred by erroneous data collection and selection that we must view the Agency's actions as arbitrary and capricious and its conclusions as resulting from unreasoned judgements; that the Agency erred in not subcategorizing the can making industry into point sources that use chromium as a can coating and those that use other coating material; that it erroneously applied the 'pass through' criteria in formulating the PSES and PSNS limitations on chromium, copper and zinc in the waste water of indirect dischargers; and that it failed to exercise its statutory duty to consider the costs imposed by the regulation.¹¹²

Even though in this case the court upheld the EPA's standard they still were required to consider these issues in detail. An agency in passing a rule thus had to attempt to explain any flaw or inconsistency in methodology no matter how small. This could be a difficult task when one considers the disorganised nature of an informal record and the fact that rulemaking proceedings could be carried on for a

¹¹⁰ For general discussions of this point see McGarity (1992) at 1412; Mashaw & Harfst (1990) at 88; Latin (1988) at 130; and Seidenfeld (1997) at 498.

¹¹¹ 760 F.2d 549 (4th Cir. 1985).

¹¹² 558.

number of years.¹¹³ Moreover, in many cases the courts seemed oblivious to the burden they were imposing on an agency. The D.C. Circuit in one case noted that a numerical standard had not sprung ‘from a bounty of definitive research as the clear and sole standard’¹¹⁴ as if suggesting in most cases the standard would and should.

Analytical opportunism arose because the model of good administration was at odds with the actual task. In light of scientific uncertainty, the methodology would always be flawed and data would be always open to interpretation. Thus any standard setting process would be fertile ground for this type of review and arguments of petitioners included: the data underlying the risk assessment was incomplete or flawed;¹¹⁵ the agency did not make their findings in relation to specific industries and specific geographical areas;¹¹⁶ the interpretation of the data was incorrect;¹¹⁷ the methodology used inappropriate;¹¹⁸ the mismanagement scenario was unrealistic;¹¹⁹ the statistical analysis poor;¹²⁰ and the agency misunderstood the nature of the scientific problem.¹²¹

¹¹³ *Asbestos Information*.

¹¹⁴ *Air Particulate* at 972.

¹¹⁵ *Gulf South* at 1145 and *Volatile Organic Compounds* at 1216.

¹¹⁶ *Colour Pigments Manufacturers Association v. OSHA* 16 F.3d 1157, 1162 (11th Cir. 1994) (The *Colour Pigments* case) and *Love* at 1360.

¹¹⁷ *American Lung Association* at 392 and *Central Arizona Water Conservation District v. EPA* 990 F.2d 1531, 1542 (9th Cir. 1993).

¹¹⁸ *NRDC v. Thomas* 805 F.2d 410, 425 (D.C. Cir. 1986) (The *Thomas* case).

¹¹⁹ *Dithiocarbamate Task Force v. EPA* 98 F.3d 1394, 1400 (D.C. Cir. 1996) and *Edison Electric Institute v. EPA* 2 F.3d 438, 446-7 (D.C. Cir. 1993).

¹²⁰ *Organic Compounds* at 184.

¹²¹ *New York v. EPA* 133 F.3d 987, 989 (7th Cir. 1998) and *Leather Industries* at 405.

Whether these arguments would succeed or fail was uncertain. Some argued this was because rulemaking was ‘fact specific and rule specific’.¹²² The real problem however was that the main criteria for judging the quality of decisions was that they should be accurate.¹²³ Yet there were no obvious limitations to how objective, how precise or how detailed a decision should be.¹²⁴ In this area, the amount of data which could be collected was almost infinite. This was because in every single case the impact of a chemical could possibly be different because of the interrelationship between countless different factors. Thus for example the effect of chemical exposure could vary depending on sex, smoking habits, exposure to other chemicals, and age. If an agency was required to consider these and countless other factors their task would be impossible. Moreover, in most cases both sides had plausible evidence and often the only way the issue was resolved was by the courts deferring to the EPA.¹²⁵ As facts and legislative commands were now the only reference points for the courts they could not easily use the problem that the legislation was addressing to gain some perspective on how accurate any findings should be.

Thus for example in *Rybachek v. EPA*¹²⁶ (The *Rybachek* case) the petitioner argued that the agency had inconsistently stated the cost of running a bulldozer. The actual standard regulated the sluice box discharge water produced from gold mining. Consideration of the bulldozer was a small part of the cost/benefit analysis

¹²² *Troy* at 284.

¹²³ *American Lung Association* at 392.

¹²⁴ *Edley* (1990) at 103.

¹²⁵ *Reynolds; Rybachek; Great Lakes; and Commonwealth of Pennsylvania*.

¹²⁶ 904 F.2d 1276, 1294-5 (9th Cir. 1990).

and after close scrutiny the court upheld the standard because the differences in calculations could be explained in the context of the methodology. There was little discussion about the relevance of those discrepancies to the final decision. Thus while in *Vermont Yankee Nuclear Power Corp. v. NRDC*¹²⁷ (The *Vermont Yankee* case) the courts had denounced Chief Judge Bazelon's approach as having the potential for 'Monday morning quarterbacking'¹²⁸ the rationalist approach has been far more susceptible to this problem. Moreover this line of argument resulted in the real purpose of regulation being lost. Courts would engage in detailed review of methodology with very little regard as to whether the agency were serving a broad concept of the public interest. This was because under the rationalist paradigm, the public interest criteria was fulfilled if an agency engaged in accurate fact finding.

3.1 Scientific Uncertainty and Zones of Reasonableness

This is not to say that the courts did not recognise problems of scientific uncertainty. In *Baltimore Gas & Electric v. NRDC*¹²⁹ (The *Baltimore Gas* case) the Supreme Court stated:

a reviewing court must remember that the [Nuclear Regulatory] Commission is making predictions, within its area of special expertise, at the frontiers of science. When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must generally be at its most deferential.

The deferential stance of that decision however must be understood in the context of the *State Farm* decision decided later that year.¹³⁰ In that case the Supreme

¹²⁷ 435 US 519 (1978).

¹²⁸ 547.

¹²⁹ 462 US 87, 103 (1983).

Court also recognised the problems of scientific uncertainty. However, they approached it in a different manner. Justice White for the Court noted:

It is not infrequent that the available data do not settle a regulatory issue, and the agency must then exercise its judgment in moving from the facts and probabilities on the record to a policy conclusion. Recognizing that policymaking in a complex society must account for uncertainty, however, does not imply that it is sufficient for an agency to merely recite the terms “substantial uncertainty” as a justification for its actions. As previously noted, the agency must explain the evidence which is available, and must offer a “rational connection between the facts found and the choice made.”¹³¹

Scientific uncertainty was perceived as a threat to accountability and reasoned decision making rather than a reality of regulation which resulted in some matters being unexplainable. Moreover, it was not accepted as a justification for not explaining reasoning in analytical terms. As one court noted, ‘inadequate data does not mean inadequate science’¹³² or in other words just because there was not enough data did not mean that the problem was not a scientific one. Thus scientific uncertainty was not a reason to argue that scientific methodology was not an appropriate tool in certain circumstances.

Thus statements about deference under scientific uncertainty must be understood in this context.¹³³ When courts stated that ‘definitive irrefutable’ evidence on the record¹³⁴ or that ‘rigorous step by step proof’ is not required¹³⁵ what they were merely stating was that they recognised that in some cases precise

¹³⁰ As well the case was the product of the *Vermont Yankee* litigation on remand. Judge Bazelon had once again struck down the Nuclear Regulatory Commission’s decision in *NRDC v. Nuclear Regulatory Commission* 685 F.2d 459 (D.C. Cir. 1982) and the case can be understood as being critical of that approach.

¹³¹ 52.

¹³² *Great Lakes* at 992.

¹³³ *ASARCO* at 490; *National Grain* at 740; and *Asbestos Information* at 425.

¹³⁴ *Mausolf v. Babbitt* 125 F.3d 661, 670 (8th Cir. 1997).

quantification was not possible.¹³⁶ Thus ‘margins of safety’ should always be rooted in an analysis of the evidence and extrapolations could only be done on the basis of reliable evidence.¹³⁷ The only type of uncertainty readily recognised were data gaps and there was an expectation that these could be solved by more research. Scientific uncertainty was simply a problem at the margins of the agency’s activities which resulted in there being a small leeway for policy.¹³⁸ Such leeway would no longer be required as science advanced.

A good doctrinal example of this is the way in which the courts applied the ‘zone of reasonableness test’ which was discussed in Chapter Two. The ‘zone of reasonableness’ as interpreted in the 1930s, was a zone of reasonable agency action described in a deliberative sense. So long as the agency did not infringe constitutional rights their action was upheld. In the 1980s the phrase was once again popular with courts but this time was interpreted differently. In the *United Steelworkers* case it was described as:

[W]here the standard requires OSHA to set a numerical limit for some phenomenon we must remember that the precise choice of number is essentially a legislative choice to which we must accord great deference and which only must fall within a ‘zone of reasonableness’.¹³⁹

¹³⁵ *Air Particulate* at 967.

¹³⁶ *BCT* at 1264; *Asbestos Information* at 425; *ASARCO* at 490; *Formaldehyde* at 392; and *United Steelworkers* at 1206-7; *National Grain* at 729; and *Texas Independent Ginners* at 404.

¹³⁷ *Air Particulate* at 967 and *Leather Industries* at 396.

¹³⁸ *Highway Bridges* at 316.

¹³⁹ 1253.

The zone of reasonableness was only in the process of estimation.¹⁴⁰ ‘Leeway’ was given to the agency but only in the context of carrying out a scientific task. The ‘zone of reasonableness’ was not about a zone of reasonable agency action within government. It was about a scientific ‘zone of reasonableness’. Rather than focusing on whether the decision overall was ‘reasonable’ the question asked was whether the factual determinations were themselves reasonable within a scientific framework.¹⁴¹

Thus in the *Air Contaminants* case OSHA attempted to argue that no further quantification of their finding of ‘significant risk’ was required (see above) because the findings fell into a ‘zone of reasonableness’.¹⁴² Judge Fay stated that while there was no need for precise calculation there was a need to provide an estimate.¹⁴³ He held:

However without *any* quantification or *any* explanation, this court cannot determine what that ‘zone of reasonableness’ is or if the standards fall within it.

Such an approach can be seen in other cases.¹⁴⁴ While scientific uncertainty remains as the most complex problem agencies face in this area, the courts have reinterpreted its nature and role in line with the rationalist paradigm.

¹⁴⁰ *United Steelworkers* at 1272; *National Grain* at 738; and *Forging Industry Association v. Secretary of Labour* 773 F.2d 1436, 1443 (4th Cir. 1985).

¹⁴¹ See *NRDC v. EPA* 824 F.2d 1146, 1165 (D.C. Cir. 1988) (The *Vinyl Chloride* case) and *Reynolds* at 559.

¹⁴² 977.

¹⁴³ 973-5.

¹⁴⁴ *Leather Industries*.

3.2 Modelling – Tipping the Balance Towards Accuracy

Scientific uncertainty and the need for leeway are not the only aspects of rulemaking which have been interpreted in this way. With closer judicial scrutiny the models that agencies used became subject to judicial review. Agencies used models in a variety of contexts including the modelling of air emissions and air quality and the extrapolation of data from animals.¹⁴⁵ Models were particularly useful in priority setting exercises such as under the Clean Air Act Amendments 1990. They could be used as tools of prediction or to help the agency deal with scientific uncertainty in a uniform way. As such they could be an aid in more consistent and ‘fair’ decision making. Models in the area of risk assessment, *prima facie* require some *value* assumptions to be taken into account and some simplifications to be made.¹⁴⁶ The simpler the model, the greater the chance of misrepresentation of physical processes. The more complicated the model, the more likely that estimates about uncertainty will need to be made.¹⁴⁷ As the NRC note ‘they present analysts with a trade-off between the needs of simplicity and for verisimilitude’.¹⁴⁸ Thus in using models a fine balance needed to be found.¹⁴⁹

Yet in finding a balance the courts have tended to favour accuracy. The use of modelling techniques was *prima facie* seen as valid but there were a number of

¹⁴⁵ See NRC (1994) at Chapter 7.

¹⁴⁶ See Shrader-Frechette (1993) at Chapters 3-6. For a philosophical analysis see Oldroyd (1986) at 284-292.

¹⁴⁷ NRC (1996) at 100.

¹⁴⁸ *Ibid.*

¹⁴⁹ *MDI* at 1265; *Small Refiners* at 535; and *Great Lakes* at 1004.

limitations on this. The model needed to be sufficiently sophisticated¹⁵⁰ and any over simplification should not be ‘unreasonable’.¹⁵¹ Moreover there needed to be a rational connection between the model and the facts.¹⁵² Most importantly, if the model was challenged the agency had to provide a ‘full analytical defence’.¹⁵³ Thus for example in *Edison Electric Institute v. EPA*¹⁵⁴ the court struck down a standard in which the EPA had used a generic model to establish whether mineral processing waste and manufactured gas plant wastes should be regulated under the Solid Waste Disposal Act. The model was based on a mismanagement scenario and the court found that the EPA had not examined in detail whether such a scenario was possible in relation to that type of waste. This was even though the scenario they used (multiple wastes being exposed above groundwater) was a relatively common occurrence. Thus in the creation and use of models agencies must still discharge large analytical burdens.¹⁵⁵

The demand that there be a rational relationship between the facts and the model could mean that the agency could rely on few value assumptions.¹⁵⁶ Agencies needed to establish that they had rested their decisions on ‘reasoned extrapolations from some reliable evidence’.¹⁵⁷ Thus for example in *Gulf South*

¹⁵⁰ *National Association of Manufacturers v. Department of Interior* 134 F.3d 1095, 1108 (D.C. Cir. 1998)(The *National Association of Manufacturers* case).

¹⁵¹ *Small Refiners* at 535.

¹⁵² *Great Lakes* at 1004.

¹⁵³ *Small Refiners* at 535.

¹⁵⁴ 2 F.3d 438 (D.C. Cir. 1993).

¹⁵⁵ Compare however *Eagle-Picher Industries v. EPA* 759 F.2d 905, 921 (D.C. Cir. 1985) where a more pragmatic approach to models was taken.

¹⁵⁶ *Great Lakes* at 1004; *Appalachian Power* at 802 and *National Association of Manufacturers* at 1102.

¹⁵⁷ *Air Particulate* at 967.

*Insulation v. CPSC*¹⁵⁸ (The *Gulf South* case) the 5th Circuit struck down a decision because the data on which a risk assessment model had been based was inadequate. This was even though one of the reasons for the model in the first place was because of the poor quality of the information. Moreover in some of these cases, the flaws in models were not judged against the stated purpose of the model and thus the seriousness of the analytical flaws was not gauged. Thus for example in *Chemical Manufacturers v. EPA*¹⁵⁹ (The *MDI* case) the D.C. Circuit struck down a limit based on a model because the assumptions on which the model was based presumed that a chemical would act in a different way than the chemical under scrutiny.¹⁶⁰ What the court did not do was analyse how exactly this impacted on the final decision and the importance of this discrepancy.

3.3 Notice and Comment Rulemaking: Analysis Over Deliberation

The rise of detailed methodological review was proportional to the declining significance of deliberation. Bazelon's emphasis on the ventilation of issues and meaningful participation was replaced by a rationalist understanding of these terms. To the extent that the procedure in notice and comment rulemaking was still held to be important it was only in relation to the improvement of methodology.¹⁶¹ In *American Waterworks Association v. EPA*¹⁶² the Court noted:

¹⁵⁸ 701 F.2d 1137 (5th Cir. 1993).

¹⁵⁹ 28 F.3d 1259 (D.C. Cir. 1994).

¹⁶⁰ 1264.

¹⁶¹ *NRDC v. EPA* 822 F.2d 104, 121 (D.C. Cir. 1987) and *Thompson* at 409.

¹⁶² 39 ERC 1897 (D.C. Cir. 1994)

An agency fulfils the notice requirements of the APA [Administrative Procedure Act] if it provides sufficient factual detail and rationale for the rule to permit interested parties to comment meaningfully.¹⁶³

The focus of consultation was the methodology of a decision rather than any broader issues. This naturally limited participation to those who had the analytical skills to comment meaningfully on methodology. As noted by Cook this resulted in administration being ‘open, accessible, intelligible, and beneficial for the organised, but an impenetrable coercive enigma for the unorganised’.¹⁶⁴

Moreover, the judicial approach to other factors of rulemaking confirmed the rationalist paradigm. The failure to respond to comments was only important insofar as those comments may have given rise to relevant information which the agency should have factored into their analysis.¹⁶⁵ Likewise arguments that rulemaking periods should be longer to ensure proper participation were rarely accepted.¹⁶⁶ In *Kelley v. Selin*¹⁶⁷ (The *Kelley* case) a 3 hour hearing was held to be more than adequate to deal with a nuclear issue which was of concern to local citizens.¹⁶⁸ Likewise in *Rybachek* the addition of 6000 pages on the administrative record was held not to give rise to a right to comment because they were added in response to comments on the proposed rule.¹⁶⁹ While such a ruling was a valid

¹⁶³ 1903.

¹⁶⁴ Cook (1996) at 136.

¹⁶⁵ *Great Lakes* at 1005 and *Thompson* at 409.

¹⁶⁶ *Appalachian Power* at 815.

¹⁶⁷ 42 F.3d 1501 (6th Cir. 1995).

¹⁶⁸ 1513.

¹⁶⁹ 1286.

interpretation of the APA it assumed that informal rulemaking is little more than a one way communication process.¹⁷⁰

This is well illustrated by the judicial response to the Negotiated Rulemaking Act 1990. That Act allowed for a deliberative process between interested parties to take place prior to normal notice and comment rulemaking. In *USA Group Loan Services Inc. v. Riley*¹⁷¹ Judge Posner described this deliberative framework as a ‘novelty in the administrative process’.¹⁷² Moreover, he was highly suspicious of it because of the dangers of agency capture. What is clear is that while notice and comment proceedings were still important the role they played had changed dramatically.¹⁷³ Thus for example in *McLouth Steel Products Corp. v. Thomas*¹⁷⁴ the court found that a model used by the agency was a ‘legislative rule’ and thus needed to comply with the notice and comment proceedings of §553 of the APA. The concern here was that the methodology of the agency would be hidden from view. Participation was important for the public scrutiny not the public opinion that it brought. The task of notice and comment was to ensure more accurate rather than more deliberative decision making. Part of the reason for the reluctance of the courts in this area was that in *Vermont Yankee* the Supreme Court definitively stated that additions to rulemaking procedure were not appropriate. More importantly however, the decreased emphasis on deliberation and

¹⁷⁰ *Organic Compounds* at 200.

¹⁷¹ 82 F.3d 708 (7th Cir. 1996).

¹⁷² 714.

¹⁷³ For cases in which notice and comment is argued see *Corrosion Proof* at 1211-3; *Great Lakes* at 1005 and *Reytblatt v. Nuclear Regulatory Commission* 105 F.3d 715, 722 (D.C. Cir. 1997).

¹⁷⁴ 838 F.2d 1317 (D.C. Cir. 1988).

consultation were consistent with the rationalist paradigm. Thus courts feared that rulemaking would be railroaded by ‘amphorous public extravangzas’¹⁷⁵ and yet fully encouraged detailed methodological scrutiny which ossified decision making.¹⁷⁶ While greater accuracy was presumed to lead better to administration, more debate could only lead to confusion, inefficiency and a greater opportunity for control by private interests.

This lack of emphasis placed on the importance of public opinion can be seen in other areas. Thus for example in *American Dental Association v. Martin*¹⁷⁷ (The *American Dental* case) Judge Coffey was highly critical of OSHA’s blood borne pathogen standard because he argued it was simply the product of ‘public hysteria’.¹⁷⁸ While undoubtedly the subject matter had been the object of sensationalist newspaper reporting Judge Coffey seemed to dismiss all public concern as irrational. Judge Posner in the same case argued that the problem of protecting against AIDS and Hepatitis B should be simply left up to the market.¹⁷⁹ Thus there was no consideration of the socio-political context in which these problems arose. Thus for example, by setting a standard for health care workers, OSHA was attempting to stop the transmission of a highly stigmatised disease through procedures which were theoretically health giving. While these factors may not have had an overwhelming role to play they were clearly relevant to the need for regulation in this area.

¹⁷⁵ *Kelley* at 1514.

¹⁷⁶ See *Corrosion Proof* at 1211 discouraging deliberation but then encouraging extensive methodological analysis.

¹⁷⁷ 984 F.2d 823 (7th Cir. 1993).

¹⁷⁸ 831.

4. Policy, Analysis and the Rise of the Cost/Benefit State

The reasoning in *American Dental* highlights the fact that there was very little room for decision making which was not based on analysis. In nearly all areas of decision making an agency was required to show that they had engaged in some form of methodologically rigorous dissection of the issues. Thus courts would review issues such as priority setting, cost/benefit analysis and the assessment of the 'knock on effects' of certain actions on rationalist grounds. While traditionally these matters did not need to be based on analytical evidence or organised in a comprehensively rational fashion they were now open to the attack that they were arbitrary and capricious or not underpinned by substantial evidence if not grounded in analysis. Statements based on intuition or experience were simply not reasonable.

The growth of methodology in this area was despite the fact that in many cases the legislation did not mandate such analysis. This was due to the argument that a systematic weighing of pros and cons was required because it was 'moral and prudential algebra',¹⁸⁰ and thus in accordance with a rationalist conception of good decision making. In *Builders and Construction Trades Department v. Brock* (the *BCT* case)¹⁸¹ the court noted:

Cost-effectiveness certainly appears to have a powerful claim. As between saving lives expensively and thriftily it would seem curmudgeonly and wasteful in the extreme (i.e. not 'reasonably necessary') to insist on the former.

¹⁷⁹ 826.

¹⁸⁰ *International Union, UAW v. OSHA* 938 F.2d 1310, 1321 (D.C. Cir. 1991) (The *Lockout/Tagout I* case).

¹⁸¹ 838 F.2d 1258, 1269 (D.C. Cir, 1988).

Moreover regulatory impact analysis requirements had an important impact on risk regulation activities and required agencies to carry out a formal cost benefit analysis for each major rule.¹⁸² A regulatory impact statement was considered part of the record and the court would review it as such.¹⁸³ In doing so they would be aware that in many cases such an analysis was an exercise in prediction but would still require it to be done with some accuracy and sophistication.¹⁸⁴

An important issue here was what was meant by a cost/benefit analysis. There was no doubt that some form of balancing was required but the question remained how accurate and technical that analysis must be. Thus in many cases the courts stressed that a formal cost/benefit analysis was not required but rather that costs needed to be shown to be reasonable.¹⁸⁵ In other cases they required proof that marginal costs did not outweigh marginal benefits.¹⁸⁶ Even on these statements there is no logical limit to how accurate or how wide an analysis should be. Thus in *American Dental* Judge Posner was highly critical of OSHA because while they had quantified the cost of handwashing, glove change and using safety syringes they had not quantified other time costs in relation to wearing protective clothing. Judge Posner argued these were slight but should have been considered.¹⁸⁷

¹⁸² See *Tyson* at 1483 for a discussion of the role of a OMB CBA. Also see *United Steelworkers of America v. Pendergrass* 855 F.2d 108 (3rd Cir. 1988) for a discussion of the interaction of OMB and OSHA under the Paperwork Reduction Act 1980. See also McGarity (1991) at 292-5 for a discussion of the problem.

¹⁸³ *Peck* at 1363; *Thompson* at 402 in relation to Regulatory Flexibility Act 1980 and McGarity (1992) at 1423.

¹⁸⁴ *Peck* at 1351, 1363.

¹⁸⁵ *Rybachek* at 1291 and *BP Exploration & Oil Inc. v. EPA* 66 F.3d 784, 800 (6th Cir. 1995).

¹⁸⁶ *Organic Compounds* at 205.

¹⁸⁷ 826 although he did not remand on this issue.

4.1 OSHA – Feasibility and Cost/Benefit Analysis

In *American Textile Manufacturers v. Donovan* (The Cotton Dust case),¹⁸⁸ decided by the Supreme Court shortly after the *Benzene* decision, the court held that §655(b)(5) did not allow a formal cost/benefit analysis (CBA) to be taken into account.¹⁸⁹ This reasonably explicit decision would seem to have put an end to the debate concerning the requirement for a formal CBA in relation to OSHA¹⁹⁰ but in later cases the courts have been active in demanding *some* form of CBA.

This has been through two methods. First, where once findings of ‘feasibility’ were only loose evidentiary requirements from the early 1980s onwards, these findings needed to be underpinned by ‘credible sources of information’,¹⁹¹ which was subject to the same scrutiny as other findings under the substantial evidence test.¹⁹² In relation to technological feasibility, stricter evidentiary requirements resulted in the OSH Act no longer being the ‘technology forcing’ statute it had been in the 1970s. OSHA was required to garner evidence for all aspects of technological feasibility and it was now only acceptable if there was lack of proof of feasibility in a few isolated circumstances.¹⁹³ Moreover, ‘feasible’ was interpreted as ‘practicable’ and thus the courts required evidence of

¹⁸⁸ 452 US 488 (1981).

¹⁸⁹ 509.

¹⁹⁰ *National Grain* at 737; *Asbestos Information* at 423; and *BCT* at 1264.

¹⁹¹ *United Steelworkers* at 1266; *American Iron and Steel Institute v. OSHA* 939 F.2d 975, 980 (D.C. Cir. 1991) (The *United Steelworkers II* case); and *AFL-CIO v. Marshall* 617 F.2d 636 (D.C. Cir. 1979).

¹⁹² *BCT* at 1267; *United Steelworkers* at 1266; *National Cottonseed Products Association v. Brock* 825 F.2d 482, 487-8 (DC Cir. 1987) (The *National Cottonseed* case); *American Dental* at 826; *United Steelworkers II*; and *Air Contaminants* at 980-987.

¹⁹³ *United Steelworkers II* at 980.

practicality.¹⁹⁴ Thus in *Colour Pigments Manufacturers Association v. OSHA*¹⁹⁵ (The *Colour Pigments* case) the court argued they needed to review the sufficiency of the evidence so as to ensure that it did not ‘rest on faulty assumptions of factual foundations’.¹⁹⁶ In that case the decision was not underpinned by substantial evidence because the analysis of a cadmium standard had not been precise enough in relation to different industries. When one considers the fact that OSHA must regulate across a wide variety of industries, this methodological requirement is clearly of an ossificatory nature, particularly when many industries are small and home based.¹⁹⁷

Despite these hurdles however, standards were rarely struck down in relation to technological feasibility because in the main the courts recognised that technological change was achievable.¹⁹⁸ Rather the area which was more problematic was that of economic feasibility. In *United Steelworkers of America v. Marshall*¹⁹⁹ (The *United Steelworkers* case) the court stated:

[T]he agency must of course provide a reasonable assessment of the likely range of costs of its standard, and the likely effects of those costs on the industry.²⁰⁰

This was by no means easy and resulted in OSHA having to rely on numerous economic studies carried out by those in the private sector. Thus for example in

¹⁹⁴ *United Steelworkers* at 1265.

¹⁹⁵ 16 F.3d 1157 (11th Cir. 1994). Also see *United Steelworkers II* and *American Dental*.

¹⁹⁶ 1160.

¹⁹⁷ As in *Colour Pigments*. Also see *American Dental* where the blood borne pathogens standard was vacated in relation to home care workers because there was no substantial evidence.

¹⁹⁸ *National Cottonseed* at 487.

¹⁹⁹ 647 F.2d 1189 (D.C. Cir. 1980).

²⁰⁰ 1266.

*American Iron & Steel Institute v. OSHA*²⁰¹ (The *United Steelworkers II* case) the brass and bronze ingot industry challenged the finding of economic feasibility for that industry in relation to the airborne lead standard. The economically troubled industry consisted of 16 producers and the crucial issue was whether the economic instability of the industry was only due to a few producers which would not make a profit no matter what happened. There were two studies on the matter both of which had methodological flaws. The study which OSHA based their conclusions on analysed the industry alongside other industries and suggested that it was really only a few producers which were doing badly. As such the standards would be economically feasible. In contrast, the study which the industry wished OSHA to rely on focused only on the brass and bronze ingot industry and suggested that the whole industry was unstable and that the standard would lead to large scale economic dislocation. This study however, did not differentiate between those producers doing badly and those making reasonable profits.²⁰² The court in this case remanded the record for lack of substantial evidence. No other factors besides the methodology of the case studies were considered.²⁰³ The fact that economic prediction was notoriously unreliable or that the industry was in any case likely to contract (the number of producers had halved over a decade) no matter what OSHA did were not raised as serious issues to consider.

The key concern for the courts was that in considering feasibility some form of analysis had been engaged in. In establishing feasibility there was a

²⁰¹ 939 F.2d 975 (D.C. Cir. 1991).

²⁰² 1008-9.

²⁰³ For another example on this point see *Thomas* at 420.

presumption that any increase in cost must be accounted for either by passing the costs onto the public or that it must reduce industry profits.²⁰⁴ Moreover, the imposition of such costs would only be justified when OSHA had illustrated there was a significant risk and that such a risk would be reduced by the proposed standards. These different statutory requirements amounted to some form of cost/benefit analysis and the court sought a 'more formal, specific weighing of quantified benefits against quantified costs' as part of establishing that the standard was reasonable.²⁰⁵

Moreover, although the Supreme Court had decided that a *formal* cost/benefit analysis was not allowed in relation to §655(b)(5) they had not spoken in relation to the rest of the OSH Act. Thus in *International Union, UAW v. OSHA*²⁰⁶ (The *Lockout/Tagout I* case) the court argued that §652(8) of the OSH Act would accommodate cost benefit analysis. Their justification for such a reading was twofold. First, they argued that the problem that the OSH Act was attempting to solve was one of market failure and that cost/benefit analysis was desirable because:

It should yield a solution approximating that of a market undistorted by market failures.²⁰⁷

There is no mention of the problem of market failure in the legislative history of the OSH Act but this characterisation of the problem fits neatly into the rationalist

²⁰⁴ *Colour Pigments* at 1163.

²⁰⁵ *National Grain* at 733. Also see *BCT* at 1265; *American Dental* at 831; *International Union, UAW v. OSHA* 37 F.3d 665, 669 (D.C. Cir. 1994) (The *Lockout/Tagout II* case); and *Texas Independent Ginners* at 405.

²⁰⁶ 938 F.2d 1310 (D.C. Cir. 1991).

²⁰⁷ 1319.

paradigm.²⁰⁸ Second, the court argued that cost/benefit analysis was an accountable way for public administration to make decisions on behalf of the population and a way of constraining discretion. Other cases (under both §655(b)(5) and §652(8)) followed this line²⁰⁹ and the practical implication was that OSHA was required to quantify all their predictions in relation to feasibility. A decision would not be underpinned by substantial evidence otherwise.

4.2 Cost/Benefit Analysis and Other Legislation

Cost/benefit analysis has not only been limited to the OSH Act but has also been the subject of judicial review in relation to other legislation.²¹⁰ A good example of this is *Corrosion Proof Fittings v. EPA*²¹¹ (The *Corrosion Proof* case). That case involved the challenge to an EPA rule issued under the Toxic Substances Control Act which banned asbestos in nearly all products. The 5th Circuit vacated the rule because they held that the EPA had not considered all necessary evidence or given adequate weight to the language of the legislation which required any standard to be the 'least burdensome' requirement.²¹² In relation to the latter, the

²⁰⁸ The Court admitted that the legislative history is blank on the subject.

²⁰⁹ *American Dental* at 826. A case of particular importance is *Texas Independent Ginners* decided between the *Benzene* and *Cotton Dust* decisions. The court at 410-11 argued for some form of cost/benefit analysis albeit not a formal one. One source of the cost/benefit requirement that has been cited is *Aqua Slide n' Dive Corporation v. CPSC* 569 F.2d 831 (5th Cir. 1978). In earlier cases we see this coming out. *Atlantic and Gulf Stevedores v. OSHRC* 534 F.2d 541 (3rd Cir. 1976) at 548 but note recognising that 'broad policy considerations' would apply.

²¹⁰ *Peck*. In some circumstances the courts have been critical of the lack of cost/benefit analysis in relation to that act. See *Gas Appliance Manufacturers v. DOE* 998 F.2d 1041, 1044-5 (D.C. Cir. 1993).

²¹¹ 947 F.2d 1201 (5th Cir. 1991).

²¹² 1215.

court found that the EPA had not properly considered less drastic requirements than a total ban.²¹³ The Court stated that:

Upon an initial showing of product danger, the proper course for the EPA to follow is to consider each regulatory option, beginning with the least burdensome, and the costs and benefits of regulation under each option.²¹⁴

Such a requirement is consistent with comprehensive rationality and a perfect example of the rationalist paradigm.²¹⁵ The analytical burden it placed on the agency, however was a large one and even though the EPA had explored the options the court was critical of the fact that they had not quantified *all* the costs and benefits for each option and in particular those past the year 2000.²¹⁶ The Court found that this made 'meaningful judicial review impossible' and argued that unquantified benefits should only ever 'tip the balance in close cases' and could never be the firm basis for a rule.²¹⁷ The court also found that in this case the costs calculated were too great in relation to the possible benefits of the rule.²¹⁸

This analytical approach can be seen in a number of other cases. *Love v. Thomas*²¹⁹ (The *Love* case) is an example of where such an approach imposes a heavy analytical burden on the agency where they are attempting to take emergency action. The EPA issued an emergency suspension order for pesticide products containing 'dinoseb' under the Federal Insecticide, Fungicide and Rodenticide Act. The court found the order was arbitrary and capricious because the

²¹³ 1217.

²¹⁴ 1217.

²¹⁵ See Diver (1981) and McGarity (1991). Also see Chapter Two.

²¹⁶ 1217.

²¹⁷ 1219.

²¹⁸ 1222.

²¹⁹ 858 F.2d 1347 (9th Cir. 1988).

EPA had not properly considered the economic impact of the order on the raspberry industry of the Pacific Northwest region which claimed that in *that* area there was no substitute for the pesticide. The EPA, instead had considered the economic impact in other regions and merely extrapolated.²²⁰ This was arbitrary and capricious when the raspberry industry claimed that there were no substitutes and that the entire American raspberry industry might collapse if the order was in place.²²¹ The decision in this case was arguably ideologically driven and was protecting local industry²²² but it also does illustrate how analytical requirements can act as a block to quick effective action.

Moreover, the use of cost/benefit analysis and other rationalist methods led to the conclusion that the only legitimate mode of argument was quantification. In *American Dental* Judge Posner dismissed an argument by an industry petitioner that children would be traumatised by the site of dentists in goggles and thus the standard would not be feasible.²²³ His reason for doing so was not that the claim did not have merit but that the petitioner had made no attempt to quantify it. Judge Posner argued that there needed to a more 'systematic showing of harm'. This again limited petitioners grounds of argument to those in relation to methodology and analysis.

²²⁰ 1360.

²²¹ 1361.

²²² 1362.

²²³ 828.

4.3 Comprehensive Rationality and Risk/Risk Analysis

The rationalist paradigm has not been limited to the use of cost/benefit analysis but has also resulted in courts requiring agencies to articulate the reasoning for their decisions in more ‘rational forms’. As noted in Chapter Two one of the features of the rationalist paradigm is the use of comprehensive rationality which requires a decision maker to identify goals, isolate the different alternative ways of achieving those goals, and then picking the most effective and efficient method.²²⁴ Cost benefit analysis is one aspect of this. Another is the need to distinguish more clearly between different aspects of the decision. Thus in *NRDC v. EPA*²²⁵ (The *Vinyl Chloride* case) the court found that although §7412 of the Clean Air Act did not preclude consideration of any factor²²⁶ the EPA would have to first set a limit solely in relation to health and then could factor into account issues of technological or economic feasibility.²²⁷ In this case, the EPA had set the limitation on the best available technology.²²⁸ Under the court’s ruling the EPA would now have to engage in a number of analytical steps before setting a standard. First they would be required to carry out a quantitative risk assessment to establish what was a safe level of exposure. Then they would need to establish what was a margin of safety. At this step they could take into account economic and technological

²²⁴ McGarity (1991) at 10.

²²⁵ 824 F.2d 1146 (D.C. Cir. 1987)

²²⁶ 1157.

²²⁷ 1165.

²²⁸ An approach later ratified by the 1990 Clean Air Act Amendments.

feasibility.²²⁹ These steps reinforced the distinction between facts and policy and rested on a presumption that such clear cut distinctions could be made.

The courts have also imposed other analytical requirements on agencies. In *Corrosion Proof* the courts were not only concerned with the methodological rigour of the cost benefit analysis but also with what other factors the agency had considered and in particular what risks any particular standard might create. This was consistent with the broader political demands for more rational and comparative risk assessment where the overall aim should be risk reduction. Thus for example, some had argued that pollution control merely shifts risks, asbestos removal increases the risk of disease and that regulating a certain substance will lead to use of other substances which are more dangerous.²³⁰ In *Corrosion Proof* the court held that:

The EPA's explicit failure to consider the toxicity of likely substitutes thus deprives its order of a reasonable basis.²³¹

While the court argued that this did not mean that the agency had to search out and analyse all substitutes it did mean that any 'credible' evidence about the risks of substitutes brought to its attention needed to be analysed and a rational weighing up of the factors engaged in.

This requirement can be seen in other cases particularly those in relation to NHTSA.²³² Thus for example in *Competitive Enterprise Institute v. NHTSA*²³³ (The

²²⁹ See NRC (1994) at 3, 36.

²³⁰ See generally Wiener (1998) and Warren & Marchant (1993).

²³¹ 1221.

²³² *Peck*; *Competitive Enterprise Institute v. NHTSA* 901 F.2d 107 (D.C. Cir. 1990); and *CEI III*.

CEI II case) the court remanded a proposed fuel economy standard because the petitioners had introduced evidence which suggested that if the fuel economy standard was lowered (which was what NHTSA intended to do) manufacturers would be required to produce smaller cars which would increase safety risks. The majority found that the agency had not properly analysed the trade-off. As became clear in later cases however, the studies which established that there was a necessary trade off were methodologically problematic.²³⁴

The problem with this line of reasoning is that it provides no obvious boundaries to the analytical requirements.²³⁵ Risk is a polycentric phenomenon and all action in relation to it will have consequences both direct and indirect. Moreover because the problem is identified as one of risk reduction, all risks are treated the same and as noted in *Corrosion Proof* a 'death is a death'.²³⁶ From a socio-political perspective, this is simply not the case and as discussed in Chapter Three the acceptability of risks depends not so much on the statistics but on the conditions in which a risk is imposed. The reason for legislation in certain areas is not just a product of a desire to reduce risk but to solve an unacceptable situation. The crude focus on 'risk-risk' analysis is not subtle enough to take this into account.

5. Statutory Interpretation and Scope of Review

As *Benzene* highlights, how a statute is interpreted will influence how scope of review is carried out. If a statutory phrase is defined as imposing a numerical

²³³ 956 F.2d 321 (D.C. Cir. 1992).

²³⁴ See *CEI III*.

²³⁵ Wexler (1997) at 254.

limit as opposed to a normative goal this will naturally require an agency to engage in analysis. Moreover the line between interpretation of legislation and the substantive exercise of discretion has always been an indistinct one.²³⁷ Thus while statutory interpretation is not a primary issue of analysis its impact must be considered. This is particularly so after the Supreme Court decision in *Chevron USA Inc v. NRDC*²³⁸ (The *Chevron* case). Before that case, the law in relation to statutory interpretation was incoherent and in *Chevron* the Court not only simplified doctrine in this area but also emphasised the important role that interpretation played.²³⁹

Chevron was concerned with how the phrase 'stationary source' should be interpreted in the Clean Air Act. Like most aspects of risk regulation statutes, the meaning of this phrase was unclear. Moreover, the legislative history did little to provide any precision to the definition.²⁴⁰ In finding for the EPA, the court put in place a two step test. First, if the 'intent of Congress is clear' both the Court and the agency must abide by that interpretation. If it is ambiguous then the agency's interpretation must stand unless it is unreasonable.²⁴¹ This two step test was hailed

²³⁶ 1221.

²³⁷ Levin (1997) at 1268-9.

²³⁸ 467 US 837 (1984).

²³⁹ Later confirmed in *Chemical Manufacturers v. NRDC* 470 US 116 (1985). Consider the large academic literature on the issue of interpretation. See Breyer (1986); Schacter (1995); Wald (1987) at 724; Scalia (1989) at 515 and Farina (1989); Seidenfeld (1994) at 86 arguing that the doctrine is grounded in pluralism; and Sunstein (1990a) at 2111 arguing that *Chevron* acts as a constitutional principle in place of the non delegation doctrine. Note however Cass & Beerman (1993) at 13-16 arguing why they think much of this literature has failed to have an impact on doctrine.

²⁴⁰ 841.

²⁴¹ 843-4.

as a means of revolutionising administrative law²⁴² but although the case has been applied in over 3500 decisions since 1984 its impact has not been as expected.²⁴³ In particular the courts have in many cases found that a statute has a plain meaning and thus do not defer to the agency's interpretation. *Chevron* has arguably resulted in a more rigid and less deferential approach to the matter of statutory interpretation than was expected.²⁴⁴ This is because *Chevron* has been interpreted in line with the rationalist paradigm.

5.1 Step One – The Rigid Approach

There are many examples in the area of risk regulation of the courts finding that a statute has a plain meaning.²⁴⁵ For example in *Ethyl Corp. v. EPA*²⁴⁶ the court held that the denial by EPA of a waiver under a fuel standard scheme was invalid because the legislation, on a 'clear reading' only allowed the consideration of one factor while in contrast EPA took into account a range of factors including health. This range of factors was consistent with a broader reading of the legislation²⁴⁷ and EPA argued that the statute was silent on the point and thus the interpretation permissible. The court found this not to be the case and noted that:

²⁴² Pierce (1988a) at 311.

²⁴³ Gossett (1997) at 695 and Garrett (1995) at 61.

²⁴⁴ Although arguably the problem with the doctrine is that it never had a clear logic behind it in the first place. See Gossett (1997) at 707.

²⁴⁵ See *Legal Environmental Assistance Foundation v. EPA* 118 F.3d 1467, 1474 (11th Cir. 1997); *State of Ohio v. Department of Interior* 880 F.2d 432 (D.C. Cir. 1989); and *Sierra Club v. EPA* 118 F.3d 1324 (9th Cir. 1997).

²⁴⁶ 51 F.3d 1053 (D.C. Cir. 1995).

²⁴⁷ 1060 – see fn 9.

We refuse once again to presume a delegation of power merely because Congress has expressly withheld such a power.²⁴⁸

The source of the EPA's authority was a very strict reading of what Congress had delegated to the agency as set out in the legislation. To allow the EPA to do otherwise, the court stated would be to allow them to 'enjoy virtually limitless hegemony'.²⁴⁹

Likewise in *Les v. Reilly*²⁵⁰ the court struck down an attempt by the EPA to read into the Delaney Clause that they were not required to regulate de minimis risks. Despite the fact that such an interpretation was consistent with other court opinions on the issue,²⁵¹ and that ultimately Congress legislated in line with the EPA's interpretation,²⁵² the language of the statute was held to be too rigid for such an interpretation.²⁵³ Thus even though deference was valid on the second step of *Chevron* many cases did not get to that stage. The *Chevron* doctrine gave rise to quite a rigid interpretation of the legislative scheme and thus the agency task. This was despite the fact that in many cases complex readjustment to a scheme was needed both in light of experience and analysis.²⁵⁴ Moreover in many cases the term although capable of plain meaning could also have a very technical aspect.²⁵⁵

²⁴⁸ 1060.

²⁴⁹ 1060.

²⁵⁰ 968 F.2d 985 (9th Cir. 1992).

²⁵¹ The *Benzene* decision.

²⁵² Food Quality Protection Act 1996.

²⁵³ In *NRDC v. Reilly* 983 F.2d 259 (D.C. Cir. 1993) Congress had explicitly required a certain method of regulation under the Clean Air Act Amendments 1990. The EPA decided not to promulgate such standard because they deemed the method unsafe. Despite this the court required them to regulate.

²⁵⁴ *Thomas* at 438.

²⁵⁵ *Alabama Power Co. v. EPA* 40 F.3d 450, 454 (D.C. Cir. 1994).

This approach to interpretation, however, while perhaps not in the spirit of the *Chevron* doctrine is compatible with the rationalist paradigm. As Wald notes:

When Congress speaks plainly we listen regardless of the consequences to what we think is the overall statutory purpose.²⁵⁶

One of the important features of the rationalist paradigm is that the drawing of the exact legislative boundaries is an important constraint on discretion. The deliberative paradigm also requires attention to the legislative scheme but so as to understand the problem that Congress is wanting the agency to solve. Step one of the *Chevron* doctrine requires a close reading of the statute and presumes that this will reveal what are the precise boundaries of the agency's authority. Deference is only allowed on issues on which Congress has not spoken clearly and as seen above that is only in very limited cases. Otherwise, they are to follow the commands of Congress unquestionably.

Moreover, in recent years the Supreme Court has promoted a textualist approach to statutory interpretation which reinforces the rationalist paradigm.²⁵⁷

Justice Scalia has interpreted the *Chevron* doctrine in the following terms:

The extent to which courts should defer to agency interpretation of law is ultimately a function of Congress' intent on the subject as revealed in the particular statutory scheme at issue.²⁵⁸

He has also been critical of reliance on legislative history²⁵⁹ By focusing on Congressional intent as expressed in the legislation, the doctrine stresses the

²⁵⁶ Wald (1987) at 726.

²⁵⁷ Merrill (1994) at 352.

²⁵⁸ Scalia (1989) at 516 quoting *Process Gas Consumers Group v. Department of Agriculture* 694 F.2d 778, 791 (D.C. Cir. 1982). Also see at 519-21 and *Chevron* at 844, 865.

²⁵⁹ *INS v. Cardoza-Fonseca* 480 US 421, 452 (1987) and see Maggs (1996) at 393.

importance of legislation as a source of bureaucratic authority. It is not surprising that some have argued that through this interpretation of the *Chevron* doctrine the non-delegation doctrine has been reborn.²⁶⁰ Rather than allowing agencies to find flexible and workable solutions to problems they may only engage in actions allowed under a strict reading of the legislation.

5.2 OSHA and the ‘Significant Risk’ Requirement

The imposition of the requirement that OSHA must establish a ‘significant risk’ by the Supreme Court in *Benzene* is the antithesis of the philosophy in *Chevron*,²⁶¹ but the case law after that judgement is a good example of how the relationship between interpretation and substantive review operates and it illustrates the problems of fixing the definition under step one of *Chevron*. After *Benzene*, OSHA was required to establish that there was a ‘significant risk’ before regulating. Thus they would need to identify that such a risk actually existed and ideally that it would be a 1 in 1000 risk. Moreover they also need to show with substantial evidence that the proposed standard would reduce that risk.²⁶² Thus once the interpretation of the legislation was fixed the task of the agency was to collect evidence to show that such a risk existed and thus they were within power.

The ‘significant risk’ would also have to be identified with some form of precision and thus estimation.²⁶³ Judge Coffey in *American Dental* noted that

²⁶⁰ Byrne (1997).

²⁶¹ Pierce (1988a) at 311 arguing that *Benzene* was a good example of why deference was needed.

²⁶² *Benzene* at 615; *ASARCO* at 490; *United Steelworkers* at 1246; and *Air Contaminants* at 972-3.

²⁶³ *ASARCO* at 491 and *Air Contaminants* at 973-5; and *Formaldehyde* at 392.

OSHA needed to establish a ‘scientifically established risk’ rather than a ‘hypothesised risk’.²⁶⁴ He noted:

The failure to analyse, quantify and document the data on the particular risk factors results in a quagmire of highly suspect estimates of risk of HBV [Hepatitis B Virus] infection in the appellate’s disciplines.²⁶⁵

In the *Air Contaminants* case the court held that OSHA was required to establish a ‘significant risk’ for each of the 428 substances they were seeking to regulate and conclusory statements derived from a series of studies was held not to be enough. Moreover, in accordance with the rest of substantive review OSHA needed to be quite precise in their findings of ‘significant risk’. In the *Lockout/Tagout* series of cases the courts were critical (although they did not strike down the decision) that OSHA had failed to disaggregate across industries.²⁶⁶ In *BCT* the courts went into a detailed analysis of the epidemiological evidence underpinning OSHA’s dose response model.²⁶⁷

The result is that the statutory requirement was an evidentiary burden which needed to be discharged before regulation could take place.²⁶⁸ This resulted in the substantial evidence test playing a different function from that which it had been originally conceived to do. In *International Union, UAW v. OSHA* (the *Lockout/Tagout II* case)²⁶⁹ the court noted the following:

²⁶⁴ 833-4. Judge Coffey was a partial dissent but not on this point.

²⁶⁵ 836.

²⁶⁶ Also see *American Dental* 827. Although compare *Associated Builders and Contractors Inc. v. Brock* 862 F.2d 63, 68 (3rd Cir. 1988).

²⁶⁷ Also see *ASARCO* at 491.

²⁶⁸ In many cases this was just simply a case of whose evidence the courts were willing to accept: *ASARCO* at 491-3.

²⁶⁹ 37 F.3d 665 (D.C. Cir. 1994).

The requirement of supportive evidence operates to assure a link between the agency's substantive mandate and the real-world circumstances on which the agency operates. If an agency could claim to be applying a statutory constraint merely by *asserting* the existence of some fact, or without connecting the facts to the congressionally specified statements in a reasoned decision, it would be free to defeat the underlying purpose of the constitutional limits on delegation: to make sure that the regulatory principles as actually applied have their origin in a judgement of the legislature.²⁷⁰

'Substantial evidence' was thus a means by which the court could ensure agency fidelity to Congress rather than a means of ensuring that a decision was reasonable in a more general sense.²⁷¹ This reinforced the rationalist paradigm. The agency was merely interpreting the legislation in a narrow fashion and finding facts on that basis.

5.3 Step Two – Complete Deference and Rationalist Review

Not all cases are of course decided on the first step of *Chevron*, although the reality is that it is often quite uncertain whether a case will be or not. Both legislation and theories of interpretation are highly malleable and capable of producing numerous results.²⁷² Risk regulation legislation, as illustrated in Chapter Three, contains many ambiguities and constant amendments have resulted in statutory schemes which can only work through readjustment and fine tuning.²⁷³ Thus, to presume that gaps in legislation are the products of legislative intent is a highly dubious proposition.²⁷⁴

²⁷⁰ 669.

²⁷¹ Also see *Texas Independent Ginners* at 404 and *National Grain* at 729.

²⁷² Burge (1997) illustrates this problem well in relation to the different judicial interpretation involved in the drawn out litigation surrounding *Babbitt v. Sweet Home Chapter of Communities for a Greater Oregon* 115 S.Ct 2407 (1995).

²⁷³ *Air Particulate* at 438.

²⁷⁴ Sunstein (1990) at 143.

When courts did defer under the second step they tended to do so in two different ways. The first was to completely defer to the agency's interpretation.²⁷⁵ This is clearly not a desirable state of affairs because the courts are not discharging their duty of review in ensuring that the decision was accountable.²⁷⁶ Moreover, as the Court noted in *Texas Municipal Power Agency v. EPA*²⁷⁷ 'almost any "alleged factual error" can be characterised as an issue of statutory interpretation',²⁷⁸ and thus in these cases deference on matters of interpretation resulted in deference on all aspects of the decision.

An example of this is in *Indianapolis Power & Light Co. v. EPA*²⁷⁹ where the court upheld the EPA's decision not to adjust emissions data in relation to the acid rain program under the Clean Air Act Amendments 1990. The industry petitioners argued that such adjustments were necessary so that the data would reflect normal operating conditions.²⁸⁰ The EPA did not adjust the data however because the data had already been reported and without adjustment industries could use it, by comparing themselves with other producers, to figure out what was the best way of participating in the acid rain program. Clearly this was an issue of the substantive exercise of discretion and on the basis of the rationalist paradigm could have resulted in quite searching analytical review. The court however decided it as

²⁷⁵ *Sierra Club v. EPA* 99 F.3d 1551 (10th Cir. 1996); *American Municipal Power – Ohio v. EPA* 98 F.3d 1372 (D.C. Cir. 1996); and *NRDC v Browner* 57 F.3d 1122 (D.C. Cir. 1995). Also see Seidenfeld (1994) at 96.

²⁷⁶ Sunstein (1990) at 143.

²⁷⁷ 89 F.3d 858,863 (D.C. Cir. 1996).

²⁷⁸ Also see discussion in *Arent v. Shalala* 70 F.3d 610, 615 (D.C. Cir. 1995).

²⁷⁹ 58 F.3d 643 (D.C. Cir. 1995).

²⁸⁰ 647.

a matter of interpretation and as the statute was silent on the issue²⁸¹ deferred fully to the EPA's approach and dismissed the petitioners arguments in four pages. Decisions such as these perhaps highlight the frustration that courts have had with review under the rationalist paradigm but such wholesale deference is clearly not desirable.

The other approach the courts have taken under step two is that in ensuring an interpretation is reasonable they engage in the same form of scrutiny as they do under the arbitrary and capricious test.²⁸² Thus for example in *National Association of Manufacturers v. Department of Interior*²⁸³ the court defined a reasonable interpretation under *Chevron* as the Agency considering the matter in a 'detailed and reasoned fashion'.²⁸⁴ Moreover in the Supreme Court decision of *Chemical Manufacturers v. NRDC*²⁸⁵ the Court stated they would uphold the EPA's interpretation if their 'understanding of this very 'complex statute' is a sufficiently rational one'. The scrutiny of the decision in that case was quite far reaching and consistent with hard look review. The statute will be read very strictly and where there are gaps the agency must establish that they engaged in a reasonable exercise of discretion on a rationalist basis. Such a framework for review reduces the role of the agency to a rationalist expert and the role of the court to that of 'super dictionary',²⁸⁶ and methodological scrutiniser.

²⁸¹ Sentelle J argued however it was not at 647-8.

²⁸² Levin (1997) at 1263.

²⁸³ 134 F.3d 1095 (D.C. Cir. 1998).

²⁸⁴ 1106.

²⁸⁵ 470 US 116, 123 (1985).

²⁸⁶ Shapiro (1968) at 4 arguing that such a role is not suitable for the court.

6. The Drive For Reform: 'It was Not Supposed to Be Like This'

As Shapiro and Levy have commented 'it was not supposed to be like this'.²⁸⁷ The great expectations of an accountable public administration have not been met and from all perspectives, judicial review in the 1980s and 1990s in this area has been an abject failure. At the end of three decades of judicial review of risk regulation, nearly all commentators regard the area as deeply problematic.²⁸⁸

From a practical perspective rulemaking proceedings have become longer and longer so that rigorous analysis can be carried out. Such a process does little to contribute towards 'better' administrative decision making. The collection of more information does not often result in regulation which is creatively shaped to the problem at hand. It is also costly for all those concerned²⁸⁹ and such complicated proceedings are a drain on agency resources.²⁹⁰ Moreover, as the focus of proceedings is the methodology, only those who can equip themselves with scientific resources can participate. The socio-political context of a problem is rarely the primary focus for consultation. Agencies in an attempt to avoid this complicated process have engaged in more informal action and used policy guidance and the like to control industry activities.²⁹¹ The problem with this approach is that such action is often unaccountable.

²⁸⁷ Shapiro & Levy (1995) at 1051.

²⁸⁸ Levin (1996) at 665; Wald (1997) at 231; and Shapiro & Levy (1995).

²⁸⁹ Carnegie Commission (1993) at 108.

²⁹⁰ Pierce (1997a) at 71.

²⁹¹ Anthony (1992).

If they do carry out rulemaking even after years of analysis, petitioners from both industry and public interest groups will seek judicial review.²⁹² When courts do engage in judicial review, the outcome is indeterminate.²⁹³ Petitioners can use nearly any analytical flaw to argue that a standard was arbitrary or capricious or not underpinned by substantial evidence.²⁹⁴ Moreover when a standard is remanded for lack of analysis it is often the case that it will be judicially reviewed on the same grounds again. A demand for precision does not provide any clear rules for how an agency should carry out its task.²⁹⁵

Those such as Kenneth Culp Davis had by 1984 seemingly given up on attempting to find any intelligence to doctrine in this area. At the beginning of his chapter on the subject in his 2nd edition in 1984 Davis stated:

Courts usually substitute judgement on the kinds of questions of law that are within their special competence, but on other questions they limit themselves to deciding reasonableness; they do not clarify the meaning of reasonableness but retain full discretion in each case to stretch it in either direction.²⁹⁶

Moreover, descriptions of scope of review are at odds with its reality. The labels, phrases and statements which shroud standards of review do little to reveal their unworkability.²⁹⁷ Scalia has noted that teaching scope of review doctrine has much

²⁹² *Air Particulate; Volatile Organic Compound; Thomas; General Electric Co. v. Department of Commerce* 128 F.3d 767 (D.C. Cir. 1997); and *NRDC v. EPA* 822 F.2d 104 (D.C. Cir. 1987).

²⁹³ Shapiro & Levy (1995).

²⁹⁴ Mashaw & Harfst (1990) at 98.

²⁹⁵ See *NRDC v. Nuclear Regulatory Commission* 685 F.2d 459 (D.C. Cir. 1982); *United Steelworkers II*; and *CEI III*.

²⁹⁶ Davis (1984) at §29.1.

²⁹⁷ Davis (1984) at §29.2-29.3; *Cotton Dust* at 543 per Justice Stewart (dissenting); and *Organic Compounds* at 200.

to do with a 'long vanished course called 'Poetry in the Law'.²⁹⁸ Thus for example, any attempt to now draw a hard and fast distinction between the substantial evidence test and the arbitrary and capricious test is likely to fail.²⁹⁹ One of the results of this has been that many argue that judicial review is an illogical and not very constructive tool of accountability. Many argue that court decisions are merely the products of ideology³⁰⁰ or pragmatism³⁰¹ rather than any reasoned analysis. Others argue that scope of review cannot proceed on any logical basis.³⁰²

It is not surprising in light of these criticisms, that in recent years, academics³⁰³, the judiciary,³⁰⁴ and legislators³⁰⁵ have proposed reforms to scope of review doctrine. The magnitude and extent of these reforms vary markedly. It is useful to survey some of the recommendations not only because they highlight the general frustration with the present state of judicial review but they also illustrate the problematic nature of the role assigned to the court under the rationalist paradigm. Broadly speaking, reform recommendations can be distinguished on two major grounds. The first, is that some reforms are clearly grounded in the rationalist paradigm while others are grounded in the deliberative paradigm. Second, the magnitude of reform recommended varies dramatically. Thus for

²⁹⁸ Scalia (1982) at vii.

²⁹⁹ See above and Senator Levin, 141 Congressional Record S10195 (18 July 1995) arguing that many judges see no difference between the tests.

³⁰⁰ Revesz (1997) and Pierce (1995a)

³⁰¹ Shapiro & Levy (1995)

³⁰² Levin (1996) at 665.

³⁰³ McGarity (1992); Pierce (1997a); Edley (1990); and Shapiro (1988) to name a few.

³⁰⁴ Breyer (1993) at 57-9. For judges commenting on reform proposals see Wald (1997); Wald (1994); and Edwards (1995).

³⁰⁵ Committee on Government Affairs (1998); Ballantine (1996); and see discussion in Sunstein (1997) at Chapter Fourteen.

example, Seidenfeld argues that what is required is adjustment in the way that a case is argued so that key issues are identified.³⁰⁶ In contrast, the level of reform proposed by Congress is akin the ‘super mandate’ of the APA.³⁰⁷ In the main recommendations tend to be of the latter type and these are the focus of discussion here.

6.1 The Super Mandate and Ultra Rationalist Reform

The impetus behind the Congressional push for reform in the last four years was clearly a desire to ensure accountability. As a recent Senate Committee report noted about the most recent super mandate, S.981, the aim of such legislation was to ‘promote more open, better informed, and more accountable regulatory decisions’.³⁰⁸ To that end, proposed legislation addressed a variety of issues including the use of cost/benefit analysis, risk assessment, congressional and presidential oversight, peer review and judicial review. As Senator Roth argued in the debating of one bill:

The three provisions that lie at the heart of any good regulatory reform proposal are: First, decisional criteria, such as the cost-benefit test; second, judicial review; and third, review of existing rules [sic].³⁰⁹

The level of reform proposed has been quite dramatic and Congress has viewed their task as akin to the drafting of the APA.³¹⁰

³⁰⁶ Seidenfeld (1997) at 514-520.

³⁰⁷ Sunstein (1997) at Chapter Fourteen.

³⁰⁸ Committee on Government Affairs (1998) at 1.

³⁰⁹ 141 Congressional Record S.9414 (June 29, 1995)

³¹⁰ Committee on Government Affairs (1998) at 4.

Yet while judicial review has been perceived as important, reformers have been very unclear what its role should be. On the one hand, in early legislation there was an attempt to rewrite §706 of the APA. Thus for example, S.343 (Comprehensive Regulatory Reform Bill) introduced by Senator Dole, included the following amendments:³¹¹

(a) To the extent necessary to reach a decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall--

(1) compel agency action unlawfully withheld or unreasonably delayed; and

(2) hold unlawful and set aside agency action, findings and conclusions found to be--

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;

(D) without observance of procedure required by law;

(E) unsupported by substantial evidence in a proceeding subject to sections 556 and 557 or otherwise reviewed on the record of an agency hearing provided by statute;

(F) without substantial support in the rulemaking file, viewed as a whole, for the asserted or necessary factual basis, as distinguished from the policy or legal basis, of a rule adopted in a proceeding subject to section 553; or

(G) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

(b) In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.

(c) In reviewing an agency interpretation of a statute governing the authority for an agency action, including agency action taken pursuant to a statute that provides for review of final agency action, the reviewing court shall--

(1) hold erroneous and unlawful--

³¹¹ Version May 29 1995.

- (A) an agency interpretation that is other than the interpretation of the statute clearly intended by Congress; or
- (B) an agency interpretation that is outside the range of permissible interpretations of the statute; and
- (2) hold arbitrary, capricious, or an abuse of discretion--
 - (A) an agency action as to which the agency--
 - (i) has improperly classified an interpretation as being within or outside the range of permissible interpretations; or
 - (ii) has not explained in a reasoned analysis why it selected the interpretation and why it rejected other permissible interpretations of the statute; or
 - (B) in the case of agency action subject to chapter 6, an interpretation that does not give the agency the broadest discretion to develop rules that will satisfy the decisional criteria of section 624.

This amendment was in many ways a comprehensive codification of the law.³¹² It not only introduced §706(a)(2)(F) but also limited the deference that a court could give an agency in relation to interpretation issues. It had its antecedents in the Bumpers amendment of the late 1970s.³¹³ Moreover, the bill also put forward specific judicial review provisions for rulemaking carried out in accordance with the risk assessment legislation. They stated:

- (a) Each court with jurisdiction to review final agency action under the statute granting the agency authority to conduct the rulemaking shall have jurisdiction to review final agency action under this subchapter.
- (b)(1) Any cost-benefit analysis of, or risk assessment concerning, a rule shall constitute part of the whole rulemaking record of agency action for the purpose of judicial review and shall be considered by a court in determining the legality of the agency action, but only to the extent that it relates to the agency's decisional responsibilities under section 624 or the statute granting the agency authority to take the agency action.
- (2) No analysis required by this subchapter shall be subject to judicial review separate or apart from judicial review of the agency action to which it relates.
- (3) The court shall apply the same standards of judicial review that govern the review of agency findings under the statute granting the agency authority to take the action.

³¹² Levin (1996) at 651.

³¹³ For a discussion of this and other developments see Levin (1985) and Levin (1985a).

(4) The court shall set aside agency action that fails to satisfy the decisional criteria of section 624, applying the applicable judicial review standards.

Section 624 referred to the following decisional criteria:

- (1) the potential benefits from the rule justify the potential costs of the rule; and
- (2) the rule will produce the most cost-effective result of any of the reasonable alternatives that the agency has discretion to adopt under the decisional criteria of the statute granting the rulemaking authority.
- (c) If a statute requires or permits that a rule be promulgated and that rule cannot, applying the express decisional criteria in the statute, satisfy the criteria provided in subsection
- (b), the agency shall not promulgate the rule unless the rule imposes--
 - (1) lower costs than any of the reasonable alternatives; or
 - (2) the least costs taking into account benefits that the agency has discretion to adopt under the decisional criteria of the statute granting the rulemaking authority.

The result of these different amendments is that the role of the court was very much in the spirit of *Corrosion Proof* and *Benzene*. Moreover, the task of the court would be simply to ensure proper analysis.³¹⁴ Without such strict judicial review, the opportunity for agency abuse would be great.³¹⁵ Those promoting such active judicial review had few problems with the fact that generalist courts may not be the best forums for reviewing analysis. To them, what was the most important thing was ensuring accountability.

Not all, however, were so enthusiastic about judicial review as a means of ensuring accountability. Some saw it as a 'Pandora's Box' of problems.³¹⁶ Senator Glenn noted that:

³¹⁴ Senator Hatch, 141 Congressional Record S10092 (17 July 1995).

³¹⁵ Senator Johnston, 141 Congressional Record S10387 (20 July 1995) and Senator Abraham 141 Congressional Record S9386 (29 June 1995).

³¹⁶ Senator Kerry, 141 Congressional Record S9413 (29 June 1995).

Regulatory reform should not be a lawyer's dream, with unending ways for special interests to bog down agencies in litigation.³¹⁷

The court room was thus seen as another opportunity for private interests to influence decision making. As Senator Kerry noted judicial review was more often than not about 'lawyers expending huge sums of money' rather than an 'even handed administrative process'.³¹⁸ Senator Glenn, highlighted 144 possible grounds of judicial review under S.343.³¹⁹ These were, in the main, analytical grounds concerned with accuracy, methodology, calculation procedures, information collection, model construction, and the consideration of alternatives. The end result of the bill, they argued would be even greater ossification.

In light of these criticisms, the judicial review requirements in S.343 and later bills was scaled back considerably. Thus for example, 11 May, 1998 version of the Regulatory Improvement Bill states:

(a) Compliance by an agency with the provisions of this subchapter shall be subject to judicial review only--

(1) in connection with review of final agency action;

(2) in accordance with this section; and

(3) in accordance with the limitations on timing, venue,

and scope of review imposed by the statute authorizing judicial review.

(b) Any determination of an agency whether a rule is a major rule under section 621(7)(A) shall be set aside by a reviewing court only upon a showing that the determination *is arbitrary or capricious*.

(c) Any designation by the Director that a rule is a major rule under section 621(7), or any failure to make such designation, shall not be subject to judicial review.

(d) The cost-benefit analysis, cost-benefit determination under section 623(d), and any risk assessment required under this subchapter shall not be subject to judicial review separate from review of the final rule to which such analysis or assessment applies. The cost-benefit analysis, cost-benefit

³¹⁷ 141 Congressional Record S10093 (17 July 1995).

³¹⁸ Senator Kerry, 141 Congressional Record S9413 (29 June 1995).

³¹⁹ 141 Congressional Record S10099-101 (17 July 1995).

determination under section 623(d), and any risk assessment shall be part of the rule making record and shall be considered by a court to the extent relevant, only in determining whether the final rule is *arbitrary, capricious, an abuse of discretion, or is unsupported by substantial evidence where that standard is otherwise provided by law*.

(e) If an agency fails to perform the cost-benefit analysis, cost-benefit determination, or risk assessment, or to provide for peer review, a court shall remand or invalidate the rule.³²⁰

Again, this limiting of judicial review has been due to the argument that what is needed is ‘real regulatory reform without bottling up important regulations in the courts’³²¹ Likewise, the minority in a recent Senate Committee report noted that increased judicial review would lead agencies to choose inferior protective options because these had less of a chance of resulting in litigation. The threat of judicial review would lead to more voluntary, incentive based programs being abandoned.³²²

At the same time, however, even on the latest version, judicial review is still very broad and because of the way in which standards of review are presently applied, most analytical flaws could be the basis for judicial review. Thus while proposed legislation no longer includes specific factual or procedural grounds of review, the end result is much the same. A risk assessment or a cost/benefit analysis are part of the record and thus a problem in their methodology could be a possible ground of review.³²³ Thus in many ways, the arguments have been hypothetical and as has been illustrated by the discussion in this chapter, scope of review already accommodates analytical opportunism on the part of petitioners.

³²⁰ Emphasis supplied. Committee on Government Operations (1998).

³²¹ Senator Levin, 144 Congressional Record S6744 (27 June 1997).

³²² Committee on Government Affairs (1998) at 66.

³²³ Committee on Government Affairs (1998) at 15.

Moreover, these Congressional debates highlight the problematic nature of the rationalist paradigm. Breyer and Stewart state that the role of judicial review is to:

Ensure agency utilization of accurate and impartial decision making procedures and agency compliance with legislative directives.³²⁴

On this basis, courts are a neutral (in all sense of the word) forum which should stick closely to their task of analytical review because otherwise judicial review will become an opportunity for interest groups to influence public administration. This however is a deeply flawed model for a number of reasons. First, courts are simply not suitable arena for carrying out rigorous *analytical* review. They are not specialists and they are only ever concerned with the discrete questions before them. As Breyer notes courts lack the ability to create ‘systematic rational agendas’.³²⁵ Second, because of the complexity and uncertainty of risk problems, decision making will always be analytically flawed and thus there will always be grounds for review.

The proposals by Congress which swing between enthusiasm and disdain for review highlight the unworkability of rationalist review. Review is desired because it ensures accountability but judicial review simply cannot offer up the sort of accountability desired under the rationalist paradigm – accuracy and fidelity to methodological procedures.

³²⁴ Breyer & Stewart (1992) at 19.

³²⁵ Breyer (1993) at 57.

6.2 Demanding Deference

It is not surprising in light of this that some commentators have argued that judicial review needs to be more deferential and less intrusive.³²⁶ A number of arguments for supporting this ‘scaling back’ can be identified. First, those such as McGarity argue that intrusive review such as ‘hard look’ review has led to ossification.³²⁷ By reducing judicial scrutiny, theoretically the problems of ossification will also be reduced. Second, Pierce argues that intrusive judicial review has resulted in too great a strain on agency resources.³²⁸ Finally, another group argue that judicial review should be reduced because the courts are straying into areas which are beyond their competence.³²⁹

As illustrated in the last couple of chapters, however the concept of deference is a very slippery one. What is deferential for one judge is not for another. Moreover, even if a court is deferential they still must engage in a certain amount of scrutiny to ensure a decision is ‘reasonable’. By doing so many of the problems identified by McGarity and Pierce are not avoided. Second, such a deferential stance is not desirable from the perspective of ensuring accountability. By going through the motions of judicial review and yet not allowing judges to engage in a meaningful critique, the courts are developing a mirage of accountable administration. By upholding a decision they are legitimating it and this is clearly not valid if the review process was not substantive. It is on this ground that many

³²⁶ McGarity (1992) at 1453 and Pierce (1997a) at 92.

³²⁷ McGarity (1992) and see Chapter Three.

³²⁸ Pierce (1997a)

³²⁹ Breyer (1993) at 57-8.

have criticised the scaling back of judicial review.³³⁰ Moreover, this is very important when one considers that the catch cry of American public administration in the last two decades has been accountability.³³¹

Finally, these proposals for reform do not represent a major departure from the rationalist paradigm.³³² Thus for example, McGarity, argues that judicial review should be carried out in the manner that a professor would mark a 'pass/fail' paper.³³³ Thus only a serious and fundamental deviation from reasonable action shall result in a decision being struck down. The problem however, is that McGarity does not address exactly what type of paper is being marked. Thus a 'fail' for a mathematics exam is a very different thing from a fail for a political theory paper. Moreover, as DeLong notes, scope of review is like a philosophy exam where the question remains the same but the ideal answer keeps changing.³³⁴ The real problem in this area is not judicial review *per se* but rather judicial review under the rationalist paradigm.

6.3 A Deliberative Vista?

Other commentators have appreciated this essential problem. Only through an analysis and a readjustment of these paradigms will any true reform be achieved. Such thinking is in line with a general theoretical shift away from rationalist understandings of public administration. Although the last three decades

³³⁰ Sargentich (1997) at 601; Shapiro (1997) at 645; Wald (1997b) at 662; and Melnick (1997) at 586.

³³¹ Cook (1996) at 134-5.

³³² Seidenfeld (1997) at 500.

³³³ McGarity (1992) at 1453.

have been firmly grounded on such a basis in the last ten there have been demands for a rejuvenation of a more richer understanding of the administrative state.³³⁵ The civic republican movement has been the most prominent but not the only example of this.³³⁶ Some of this work has directly considered the issue of the role of judicial review of administrative action.³³⁷ The work of Christopher Edley and Martin Shapiro are two classic examples of this. In both cases, their proposals for reform are part of a broad conceptual analysis of the nature of judicial review. Through analysing the theories underpinning scope of review doctrine, they have both been able to identify the core conceptual problems as well as possible avenues for reform.

Edley bases his critique of scope of review doctrine on an analysis of the problems of the law/politics/fact trichotomy and its relationship with separation of powers thinking.³³⁸ Edley argues that a rigid adherence to this distinction has resulted in a quagmire of confusing doctrine. He argues that the solution is not to use either the separation of powers or the need to constrain discretion as a starting point.³³⁹ Rather, scope of review doctrine needs to be grounded in norms of ‘sound governance’.³⁴⁰ Edley is very vague about what is meant by this term but other

³³⁴ DeLong (1979) at 285.

³³⁵ Freeman (1997).

³³⁶ Sandel (1996); Sunstein (1988) and Michelman (1988)

³³⁷ Another example from this discussion is that of Sunstein where he argues that ‘hard look review’ is an example of civic republicanism in action. His theory however is vague and not particularly helpful. See Sunstein (1987) at 469-71. Also see Seidenfeld (1992) at 1550.

³³⁸ Edley (1990) at Chapters One, Four, Six and Seven.

³³⁹ Edley (1990) at 227, 230.

³⁴⁰ Ibid. at 232-3.

commentators have argued that he lies firmly in the civic republican camp.³⁴¹ Edley argues that judicial review should promote ‘fluidity and feedback with respect to the norms of sound government’.³⁴² An important aspect of this, he argues is an appreciation that decisions will incorporate issues of fact, law and policy and that they would address issues of who should deliberate in the public interest and how agencies should weigh informal evidence with harder scientific evidence.³⁴³ As such courts would primarily be involved with ‘quasi procedural issues’.³⁴⁴ Shapiro’s analysis comes to a similar but slightly different conclusion. Shapiro argues that judicial review over the last three decades has required agencies to engage in ‘synoptic decision making, a perfect rule making process resulting in a substantially correct legal rule’.³⁴⁵ The solution to this problem he argues is for courts to recognise that agencies are not synoptic decision makers but rather prudent experts who base their decisions on experience and common-sense.³⁴⁶

Both these recommendations for scope of review reform are grounded in an understanding of what should be the role of public administration. Yet seemingly a major problem with this approach is that while the rationalist paradigm provides a clear schemata for scope of review the deliberative paradigm does not. As Shapiro notes it is difficult to distinguish between whether a decision is a product of prudence or an ‘opinionated mess’ and that:

³⁴¹ Note (1994) at 1410 and Seidenfeld (1992) at 1515.

³⁴² Edley (1990) at 232.

³⁴³ Ibid. at 262-3.

³⁴⁴ Ibid. at 263.

³⁴⁵ Shapiro (1988) at 119.

³⁴⁶ Ibid. at Chapter Six.

Telling an agency to be wiser is rather like telling a student who got a bad grade to be smarter. It may be true, but it is rarely much help.³⁴⁷

Clearly, the deliberative paradigm does involve a degree of shaping doctrine to any particular case and this raises the problem of judicial abuse of power.³⁴⁸ Yet this is a very negative picture of the deliberative paradigm and a far too rosy one of the rationalist paradigm. As we have seen, the rationalist paradigm is not a framework for determinate judicial review doctrine. Likewise, as shall be illustrated in the next chapter, the deliberative paradigm can be a meaningful basis for the development of judicial review doctrine.

7. Conclusion

The theoretical model of the administrative state has reached a point of paradigmatic crisis.³⁴⁹ There is little agreement however concerning the direction government should head. The problems of the courts are very much tied to larger questions about legitimacy and public administration. This larger and highly turbulent backdrop cannot be ignored but at the same time, the courts can be an important starting point for reform. In the 1970s Judge Leventhal's hard look review had a major impact on both legislatures and agencies and so too can the courts remain an important forum in which the nature of administrative power is defined.

³⁴⁷ Ibid. at 159-60.

³⁴⁸ Ibid. at 160-1.

³⁴⁹ Freeman (1997) at 3. On paradigms and crisis see Kuhn (1970). By this, what is meant is, that the dominant intellectual paradigm is no longer capable of explaining or solving problems and an intellectual revolution must occur. A similar example is the Copernican Revolution.

The problem ultimately faced by the courts in this area is a very simple one. The rationalist paradigm defines both the task of the courts and agencies in rigid and mechanical terms. Yet, as Jerome Frank argued over fifty years ago we cannot turn government into a ‘piece of automatic machinery’³⁵⁰ and that those who think it should belong to the ‘Order of Self Deluding Ostriches’.³⁵¹ The Attorney General’s Committee report appreciated this,³⁵² and so did Judge Bazelon. Justice Marshall was quite correct in the *Benzene* decision when he state that the majority had misunderstood institutional roles.

Yet it is important to remember the reasons for such a misunderstanding. The rationalist paradigm has been the product of many different factors but most of all a desire to hold public administration to account. No one can deny the importance of accountability but on the rationalist model of public administration, judicial review does little to achieve it.

The deliberative paradigm, in contrast, offers up a far more promising but at this stage, highly sketchy vista of both agencies and the courts. The question is whether this can translate into a substantive and legitimate model of accountable public administration. The next two chapters, explore this issue. The conclusion is that not only can it but also arguably it can result in a far more responsive and creative administrative state.

³⁵⁰ Frank (1942) at 2.

³⁵¹ Frank (1942) at 6.

³⁵² Attorney General’s Committee (1941).

Chapter Six

From Rationalism to Deliberation: Towards A New Paradigm for Scope of Review

‘Administrative law’ is a label embracing a range of general principles that must be flexibly deployed and developed in response to different administrative regimes and responsibilities and to evolving patterns of administrative decision and societal assessment of administrative performance.¹

Imagine if as Christopher Edley pondered ‘everything was up for grabs?’² and that any reform was possible. The political constraints melted away, history and precedent could be undone. We could return to the judicial debates of the 1970s, the disagreements between Bazelon and Leventhal, the vibrant dialogue in cases such as *Ethyl Corp v. EPA* (The *Ethyl* case).³ Imagine we could reinvent scope of review doctrine on the basis of the deliberative paradigm. Imagine that we could put in place ideal legislative changes. What then would judicial review of decision making under scientific uncertainty look like? Such speculation is not entirely fanciful. Despite the Congressional desire for rationalist ‘super mandates’, there are strong demands for more deliberative governance⁴ and even legislative reforms in this direction.⁵ Moreover, as we have seen, deliberative theories of public administration were identifiable as part of the Progressive and New Deal

¹ Stewart (1978) at 1820.

² Edley (1990) at 213.

³ 541 F.2d 1 (D.C. Cir. 1976).

⁴ This range from the policy orientated to the more theoretical: NRC (1996); Edley (1990) Freeman (1997) Williams & Matheny (1995); Sandel (1996).

⁵ Negotiated Rulemaking Act 1990, 5 USCA §561-570.

movements.⁶ Some have argued however, that deliberative theories are too idealistic to be the basis for administrative governance.⁷

This chapter argues that this is not the case. It is an analysis of the deliberative paradigm of scope of review doctrine starting with a discussion of deliberative problem solving and ending with a framework for judicial review. Chapter Seven is a mock deliberative style judgement which judicially reviews the Occupational Safety and Health Administration's (OSHAs) recent standard for methylene chloride.⁸ The chapters should be read in tandem. The theoretical ideas discussed in this chapter are applied in practice in the next.

1. Risk Regulation and Reasonable Deliberative Action

Dissatisfaction with the rationalist paradigm has not only been in relation to judicial review. As the minority argued in the Senate Committee report in relation to S.981:

Why would we want to enact a law that forces air safety risks to be analysed by methods that are ill suited to the problem at hand?⁹

As noted in Chapter Three, risk regulation has become the focus of a heated but quite fractured debate about the nature of regulation and management.¹⁰ In the early 1990s the Risk and Policy Association broke away from the traditionally

⁶ Croly (1915); Frankfurter (1930) and Sandel (1996) at Chapter Seven.

⁷ Williams (1994).

⁸ 62 Fed. Reg. 1494 (January 10, 1997).

⁹ Committee on Government Affairs (1998). Also see Shrader-Frechette (1993).

¹⁰ Compare Graham & Wiener (1995) and Jasanoff (1995).

rationalist Society of Risk Analysis.¹¹ Where once the deliberative paradigm was merely a critique of rationalist approaches to risk there has been in the last decade, more attention paid to developing a substantive approach to deliberative risk management.¹² The National Research Council's (NRC) 1996 report, *Understanding Risk*¹³ being a prime example of this.¹⁴

Nor have deliberative theories of governance been limited to risk and regulation and many have grown dissatisfied with the rationalist paradigm casting public administration as 'an alien in a democratic land'.¹⁵ Law journals and political theory journals have been brimming with a rich and complex discussion about the structure and substance of deliberative administration. Numerous theories have prospered including civic republicanism, theories of collaborative governance, theories of civil society and theories of deliberative democracy.¹⁶ This literature is concerned both with political theory¹⁷ and with regulatory strategies.¹⁸ While there can be no attempt here to do justice to this complicated dialogue, a brief analysis is required of what is defined as reasonable 'deliberative administrative action' in the context of risk regulation. As well noted throughout this thesis, the role of the

¹¹ Compare their respective journals: *Risk: Health Safety and Environment* and *Risk Analysis*.

¹² Williams & Matheny (1995) at Chapter Eight; Ruhl (1997); Jasanoff (1995); Beck (1994) at 29-30; Fiorino (1990); Frankenfeld (1992) and Laird (1993).

¹³ NRC (1996).

¹⁴ See Sunstein (1997) at Chapter Five; Wirth & Silbergeld (1995); Wagner (1995); Wiener (1998); Finkel (1995) and Belzer et al (1995).

¹⁵ Cook (1996) at 138.

¹⁶ Cook (1996) at Chapter Seven; Freeman (1997); Cohen & Rogers (1995); Sandel (1996); Sunstein (1993); and Michelman (1988).

¹⁷ Habermas (1996).

¹⁸ See for example Ayres & Braithwaite (1992); Freeman (1997) at 33-66; and NRC (1996) at Appendix A for discussions of regulatory strategy.

courts in carrying out judicial review will depend very much on an understanding of what is the task and role of public administration.¹⁹ Thus some reanalysis is required.

An expert administrative agency was defined in Chapter One as an agency which can lay claim to either specific skills, experience or knowledge which neither Congress nor the courts possess. A deliberative expert administrator is a problem solver in the public interest. Its skills, knowledge and experience include not only scientific analysis but also regulatory experience, an appreciation of the socio-political context and the ability to bring together many different disciplines in deliberation so as to solve a problem. Unlike Congress and the courts, expert public administration is a long term and stable problem solving institution.²⁰ It aims to develop responsive and transdisciplinary solutions which are sensitive to the complexities of the socio-scientific problems it is attempting to tackle. As such, some trial and error will be required by the administration.

1.1 Diagnosing Problems

A useful framework for understanding the concept of reasonable deliberative action is that provided by the NRC in their 1996 report. That report identified ‘diagnosing’ the problem as the focal point for risk regulation.²¹ The reasonableness of deliberative decision making depends on the reasonableness of problem solving. This in turn depends upon the process of problem diagnosis

¹⁹ Davis & Pierce (1994) at §17.1; *Industrial Union Dept, AFL-CIO v. Hodgson* 499 F.2d 467, 469 (D.C. Cir. 1974) (The *Hodgson* case) and Leventhal (1974) at 515.

²⁰ Cook (1996) at 144.

²¹ NRC (1996) at 137. Also see Reich (1966) at 1240; and Freeman (1997) at 22.

because risk problems are more often than not, polycentric and complex. The holistic diagnosis process is represented diagrammatically below.²²

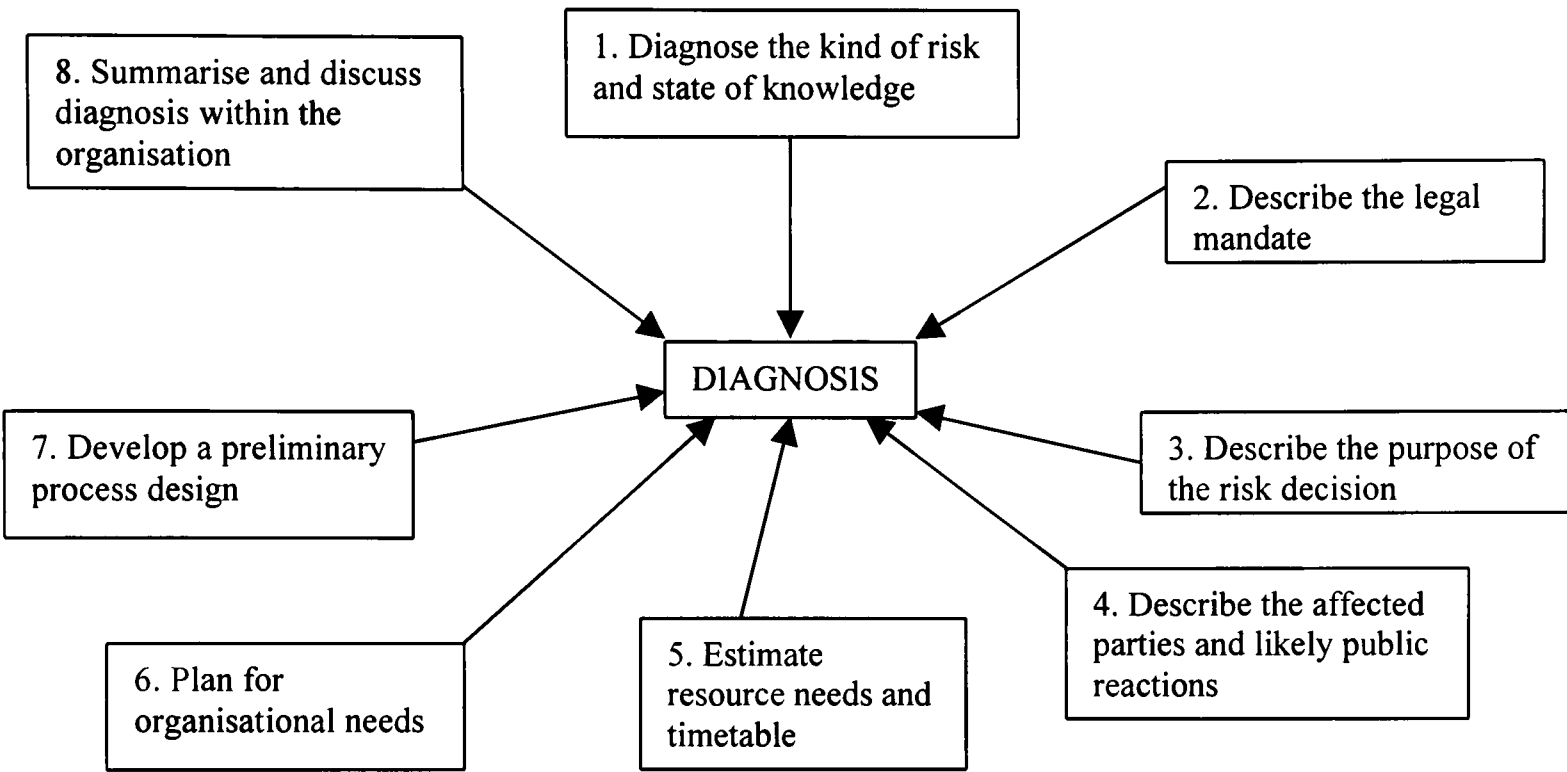


Diagram 1 – NRC (1996) – Diagnostic Steps for Risk Decision Making

The process of diagnosis is an analytical-deliberative one which requires the explicit consideration of a wide number of factors.²³ A number of points should be made. First, consideration of the steps identified will often occur simultaneously²⁴ and are interdependent. Thus for example the identification of affected parties will depend on the nature of the risk and the legal mandate. Second, the steps above are not set in stone and are not a ‘new bureaucratic procedure’.²⁵ The importance or

²² NRC (1996) at 143.

²³ Ibid. at 137.

²⁴ Ibid. at 142.

²⁵ Ibid. at 142.

irrelevance of any particular step will depend upon the context. Thus for example, in some cases the organisational needs for the analytical-deliberative process may already be in place if the decision is part of an existing program but in other cases it may not. Third, trial and error has an important role to play and while there is no expectation that there is one correct diagnosis there is an expectation that a re-conceptualisation of the problem may need to take place. As the NRC stress:

An unwillingness to modify preliminary decisions can undermine the larger purpose of making risk characterization responsive to the emerging needs of the decision makers and of the interested and affected parties.²⁶

Fourth, the legal mandate is an important but not an overriding factor to be taken into account.²⁷ The NRC recognise the importance of identifying legal responsibilities precisely but at the same time not limiting deliberation or public input simply because the statute does not require it.²⁸ The statute will be important for identifying the nature of the problem. Thus for example in relation to the OSH Act the problem is one of providing ‘safe or healthful employment’²⁹ while in contrast the 1990 Clean Air Amendments put in place a regulatory scheme based on ‘best available technology’.³⁰ Fifth, in considering and defining what the problem is, resource and organisational constraints are an important factor and need to be explicitly considered. By doing this, the impact of lack of resources can be properly gauged.

²⁶ Ibid. at 150.

²⁷ Ibid. at 146.

²⁸ Ibid. at 146.

²⁹ 29 USCA §652(8).

³⁰ 42 USCA §7412.

The most important step however in diagnosing the problem is to *understand what is the nature of risk* and, as shall be discussed later, *what is the knowledge about that risk*. The NRC propose a series of seven ‘diagnostic questions’ about the nature of a hazard.³¹ First, an agency must assess *who is exposed* to the risk. That is whether it is humans, non humans and ecological systems³² or whether it affects present or future generations.³³ Second, *which groups are exposed* to the risk will also be relevant. The problem will be very different if those gaining benefit from the hazardous activity are not those exposed from the risk.³⁴ Moreover, a certain race, gender, occupation or socio-economic class may be particularly vulnerable to the risk. Thus for example in *American Lung Association v. EPA*³⁵ the issue was whether the EPA should regulate to protect asthmatics from the adverse effects of sulphur dioxide bursts. Likewise, many OSH standards will only impact on certain industries.³⁶ How an agency can regulate one industry may be very different from another. Thus for example in *American Dental Association v. Martin*³⁷ (The *American Dental* case), the standard was partly remanded in relation to regulations affecting home workers because the court held that such standards were simply not possible to enforce.

³¹ NRC (1996) at 144.

³² Compare *Ethyl* (human health risk from leaded gasoline); *Mausolf v. Babbitt* 125 F.3d 661 (8th Cir. 1997) (protection of grey wolf from snow mobiling); *Personal Watercraft Industry Association v. Department of Commerce* 48 F.3d 540 (D.C. Cir. 1995) (The *Personal Watercraft* case)(protection of the Monterey Bay National Marine Sanctuary from personal watercraft).

³³ See discussion in *Corrosion Proof Fittings v. EPA* 947 F.2d 1201, 1217 (5th Cir. 1991) (The *Corrosion Proof* case) concerning the calculation of future costs.

³⁴ Worker safety and consumer protection are good examples of this problem.

³⁵ 134 F.3d 388, 391 (D.C. Cir. 1998).

³⁶ *American Textile Manufacturers v. Donovan* 452 US 488 (1981)(The *Cotton Dust* case) (cotton ginning industry) and *American Dental* (health care).

Third, *what is posing the risk?* Thus for example the risk may be the product of agricultural processes,³⁸ engineering failure,³⁹ or of air or water pollution.⁴⁰ Clearly, these causes will need to be regulated in different manners. Fourth, *what is the nature of the harm?* Possible harm can vary widely from ecological destruction⁴¹ to problems with human health. In relation to human health there are also a wide range of impacts including sudden death,⁴² death from cancer,⁴³ death from other diseases,⁴⁴ or a series of chronic health problems.⁴⁵ Thus for example, it was argued that the inclusion of §655(b)(5) in the Occupational Safety and Health Act (OSH Act) was to take into account the fact that command and control regulation was the only effective way of regulating for risks, the impact of which would be felt twenty years in the future.⁴⁶ Fifth, and most importantly an agency should consider, the *qualities of the hazard which might affect judgements about the risk*. In Chapter Three factors such as voluntariness, consent, and perceptions about the risk creator were all relevant in how risk problems were

³⁷ 984 F.2d 823 (7th Cir. 1993).

³⁸ *EDF v. Ruckelshaus* 439 F.2d 584, 597 (D.C. Cir. 1971); *EDF v. EPA* 465 F.2d 528, 540 (D.C. Cir. 1972); *EDF v. EPA* 510 F.2d 1292, 1297 (D.C. Cir. 1975); and *EDF v. EPA* 548 F.2d 998, 1004 (D.C. Cir. 1976) (pesticides).

³⁹ *Simms v. NHTSA* 45 F.3d 999, 1004 (6th Cir. 1995) (*Simms*)(wheelchairs in school buses).

⁴⁰ *Ethyl* (leaded gasoline) and *NRDC v. EPA* 824 F.2d 1211 (D.C. Cir. 1987) (volatile organic compounds in drinking water).

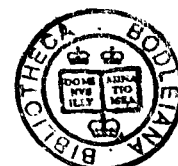
⁴¹ *Citizens to Preserve Overton Park Inc. v. Volpe* 410 US 224 (1973) (parkland).

⁴² *Motor Vehicles Manufacturers Association v. State Farm Mutual Automobile Insurance Company* 463 US 29 (1983) (The *State Farm* case)(airbags and seatbelts in cars).

⁴³ *Industrial Union Department, AFL-CIO v. American Petroleum Institute* 448 US 607 (1980) (The *Benzene* case) (leukaemia from benzene exposure).

⁴⁴ *American Dental* (HIV and Hepatitis B).

⁴⁵ *Cotton Dust* which includes chronic diseases from cotton dust exposure as well as brown lung disease.



perceived.⁴⁷ Thus for example issues such as nuclear power⁴⁸ and HIV⁴⁹ are highly politicised while those dealing with some technical industrial equipment are not.⁵⁰ Sixth, *where is the hazard experienced?* Thus for example certain regulations will be dealing with the problems in different regions⁵¹ while other problems will be national. The Clean Air Act with its state implementation plans and regional areas is an example of where regulation is based on geography.⁵² Finally, consideration must be had to how a certain hazard will overlap with another. Thus for example, those in the mining industry will be exposed to numerous risks which may have a cumulative effect.⁵³ Likewise car regulation safety will be directed at a set of risks all of which contribute to the larger risk of car accidents.⁵⁴

What this series of questions highlights is that scientific analysis is only one aspect of risk regulation. Moreover, in some circumstances it may not be a determinant element of decision making. Rather, the reasonableness of any action

⁴⁶ *National Grain and Feed Association v. OSHA* 866 F.2d 717, 731 (5th Cir. 1989) (The *National Grain* case); Scordo (1994) at 168-178; and 116 Congressional Record 37326 (Nov. 16, 1970).

⁴⁷ Douglas (1985).

⁴⁸ *NRDC v. NRC* 547 F.2d 633 (D.C. Cir. 1976) (The *Table S-3* case) and *Kelley v. Selin* 42 F.3d 1501 (6th Cir. 1995).

⁴⁹ *American Dental*.

⁵⁰ *Reytblatt v. NRC* 105 F.3d 715 (D.C. Cir. 1997) (performance requirements for leakage rates of containers).

⁵¹ *American Iron and Steel Institute v. EPA* 115 F.3d 979 (D.C. Cir. 1997) (Great Lakes area) and *Personal Watercraft* (The Monterey Bay National Marine Sanctuary).

⁵² *State of New York v. EPA* 852 F.2d 574 (D.C. Cir. 1988) (state/federal duties) and *Central Arizona Water Conservation District v. EPA* 990 F.2d 1531 (9th Cir. 1993) (regional sulphur dioxide emissions).

⁵³ *National Mineral Association v. Mine Safety and Health Administration* 116 F.3d 520 (D.C. Cir. 1997) (oxygen levels in mines).

⁵⁴ *State Farm* (airbags); *Centre for Auto Safety v. Peck* 751 F.2d 1336 (D.C. Cir. 1985) (bumper bars) and *Competitive Enterprise Institute v. NHTSA* 956 F.2d 321 (D.C. Cir. 1992) (fuel economy).

will depend crucially on an understanding of the problem. The type of ‘meaningful democratic dialogue’ demanded by Chief Judge Bazelon in *NRDC v. Nuclear Regulatory Commission*⁵⁵ (The *Table S-3* case) in relation to nuclear power would simply not be required in a case about the standards for wheelchairs in buses.⁵⁶ Thus for example, compare *Alabama Power Co. v. OSHA*⁵⁷ (The *Alabama Power* case) with *American Dental*. Both cases involved the wearing of clothing to protect against a risk. In the former, clothing was to protect against the risk of electrocution of workers and OSHA required workers to wear heavy cotton shirts. In the latter case, OSHA required the wearing of gloves, goggles and other clothes to protect against the transmission of HIV or Hepatitis B. There however, is where the similarities end. In *American Dental*, protection was to prevent two way transmission. HIV had a social stigma attached and the threat of it in the health care industry was subject to intense media scrutiny. Possible ‘victims’ were random members of the public who were undergoing health promoting activities. There was also a great deal of scientific uncertainty concerning both what were the risks of transmission and the progression of the disease. Moreover, the same protective clothing could protect against other risks.⁵⁸ In contrast, in *Alabama Power* the clothing regulation was applying to a discrete and trained workforce and electrocution was a well known and understood acute risk. As such, it was not surrounded by any stigma or controversy. The differences between these two risks

⁵⁵ 547 F.2d 633 (D.C. Cir. 1976).

⁵⁶ *Simms*. Also compare *Gulf South Insulation v. CPSC* 701 F.2d 1137 (5th Cir. 1983) and *International Union, UAW v. Pendergrass* 878 F.2d 389, 392 (DC Cir. 1989) (The *Formaldehyde* case) (same substance, different legislation). *Troy Corp. v. Browner* 120 F.3d 277, 284 (D.C. Cir. 1997) (The *Troy* case) and *AFL-CIO v. OSHA* 965 F.2d 962 (11th Cir. 1992) (The *Air Contaminants* case) (generic rulemaking).

⁵⁷ 89 F.3d 740 (11th Cir. 1996).

does not mean that one risk should be regulated in a more protective manner than another but that the concept of what is ‘reasonable administrative action’ will vary in each case.

In solving a problem all these risks should be taken into account. These wide ranging considerations stand in stark contrast to the exercise of discretion under the rationalist paradigm. Thus for example in *Corrosion Proof Fittings v. EPA*⁵⁹ (The *Corrosion Proof* case) the court was only concerned with how the very narrow question of whether the quantifiable benefits outweighed the quantifiable costs. The decision was struck down because the EPA had not done this. Under the deliberative paradigm however, the agency would need to balance up numerous factors not just quantifiable costs and benefits. This is not to say that some analysis would not be required but that the reasonableness of the administrative action would be judged in its social context.

1.2 The Central Role of Deliberation

Diagnosing and solving any problem requires a judicious mix of deliberation and analysis. That mix must give a central role to deliberation.⁶⁰

Deliberation is about communication and as the NRC note:

In deliberation, people confer, ponder, exchange views, consider evidence, reflect on matters of mutual interest, negotiate and attempt to persuade each other. Deliberation includes both consensual communication processes and adversarial ones.⁶¹

⁵⁸ Hepatitis B & C and more recently tuberculosis.

⁵⁹ 947 F.2d 1201 (5th Cir. 1991).

⁶⁰ Attorney General’s Committee (1941) at 19; Harter (1997) at 1409; and McNaughtan (1996) at 3.

⁶¹ NRC (1996) at 73.

The only way a complex problem can be diagnosed is through a deliberative process in which the many facets of a problem can be understood.⁶² Deliberation is not a form of information dissemination nor is it a form of bargaining. Deliberation must be in the public interest and not just in the interests of the parties deliberating. For that to occur an agency must take a strong leadership role and ultimately must retain the power to determine the issue. An important part of that leadership is to actively seek out deliberation rather than passively wait for responses to notices of proposed rulemaking.⁶³

The NRC note that there are two questions in determining the success of deliberation.⁶⁴ First, one needs to address the issue of whether the deliberation included the relevant parties. This is best done through asking public officials and parties involved in the process whether they think others should have been involved. Thus for example, an issue such as hazardous waste siting which did not include deliberation in a substantive way with local citizens would be clearly unreasonable.⁶⁵

Second, the issue of whether there was adequate and meaningful consultation needs to be addressed. Deliberation, as Chief Judge Bazelon noted in *Table S-3*⁶⁶, can take many forms. Citizen advisory panels, scientific committees, advisory committees, public hearings, task forces, and focus groups are just a few

⁶² Ibid. at 159.

⁶³ Harter (1997) at 1405.

⁶⁴ NRC (1996) at 152.

⁶⁵ Williams & Matheny (1995) discussing hazardous waste siting.

⁶⁶ 547 F.2d 633 (D.C. Cir. 1976).

of the examples of the ‘menu’ of deliberative options.⁶⁷ The appropriateness of any, will depend on the context. It is doubtful whether in *Alabama Power* a wide ranging task force or a citizenry advisory panel would be needed while clearly in *American Dental* these forms of deliberation would be appropriate. The success of any form of deliberation is best done by asking those involved whether there were specific issues which they did not feel they were able to raise. There can be no expectation that interested parties will walk away from any deliberative process completely satisfied. As Jaffe once noted:

Administration, then, as the active principle of choosing, or preferring.....has in it the inherent power to hurt, to awaken resentment, to stir the sense of injustice.⁶⁸

One factor which can help determine the success of decision making is whether it engendered trust. Trust should be distinguished from satisfaction that the result favoured them, but if a deliberative process can maintain it this can reduce political conflict in the area.⁶⁹

Deliberation cannot be just a supplement to the main arena of decision making. This is the major drawback with the Negotiated Rulemaking Act 1990 which codifies a process of deliberation between interested parties. The process only occurs as a precursor to normal notice and comment rulemaking and thus is a supplement rather than a replacement for normal rulemaking procedures.⁷⁰

⁶⁷ Applegate (1998) at 951 and NRC (1996) at Appendix B.

⁶⁸ Jaffe (1965) at 323.

⁶⁹ Erikson (1994).

⁷⁰ Wald (1997a) at 1472.

1.3 Analysis and the Informing of Deliberation

If expert public administration only deliberated then there would be a strong argument that this would be better done by Congress. The expertise of public administration, however lies in their ability to integrate deliberation and analysis. Deliberation is the primary basis for decision making but it must be informed by analysis. As the NRC note:

Analysis is essential to the risk decision process because it is the best source of reliable, replicable information about hazards and exposures and options for addressing them.....*Relevant* analysis, in quantitative and qualitative form, strengthens the knowledge base for deliberations, both about how to deal with hazards and about how to better inform risk decisions.....It can enable all parties to reach agreement on some issues and focus further discussion on areas of disagreement.⁷¹

There are many examples of where Congress has legislated without proper analysis.⁷² Thus the deadlines under the Clean Air Act in the early 1970s were passed with very little regard to whether the meeting of deadlines was possible.⁷³ Likewise, Congress has passed legislation specifically requiring a certain regulatory approach which in actual fact is neither viable or particularly effective at solving the problem identified by the legislation.⁷⁴

The NRC suggest two questions for assessing the quality of the analysis.⁷⁵ The first is whether, the science used is the correct methodology. This is best assessed by experts who represent the spectrum of interested and affected parties.

⁷¹ NRC (1996) at 98.

⁷² Ibid. at 99.

⁷³ Marcus (1980) at 90. See *Essex Chemical Corporation v. Ruckelshaus* 486 F.2d 427 (D.C. Cir 1973) and *Kennecott Copper Corp. v. EPA* 462 F.2d 846 (D.C. Cir. 1972) for the result of attempting to meet such deadlines.

⁷⁴ *NRDC v. Reilly* 983 F.2d 259 (D.C. Cir. 1993). Regulation required but EPA thought proposed legislative method was unsafe.

In asking this question there is no expectation of a perfect answer but rather it is to ensure that public administration has not ignored some crucial tools of analysis or body of scientific theory. This however is rarely a barrier to effective regulation. The more difficult issue is the limits of the knowledge available and how such knowledge should be utilised. The NRC outline another series of 'diagnostic questions' which assist in identifying these factors.⁷⁶

First an agency needs to address the issue of *how adequate the database* is on any particular risk.⁷⁷ Thus for example, there are many studies about exposure to lead⁷⁸ but little information about many pesticides.⁷⁹ Second, an agency must *know how much scientific consensus exists about how to analyse the risk*. Thus for example, whether epidemiology or animal studies are the most appropriate basis for a risk assessment.⁸⁰ Likewise, whether the similar structure of chemical substances means they will also have similar toxicological effects is a question on which experts will differ.⁸¹ The NRC highlight that an important consideration is whether disagreements can be attributed to affiliations or academic disciplines or are merely the product of personal viewpoints. Thus for example whether industry scientists hold one view and public interest group scientists another. Third, an agency needs to address the question of *how much scientific consensus there will be about risk estimates*. This is a different question from above and addresses the problem of

⁷⁵ NRC (1996) at 152.

⁷⁶ Ibid. at 145.

⁷⁷ National Research Council (1983) at 11-12 and Adams (1995) at 45.

⁷⁸ *Ethyl*

⁷⁹ *Love v. Thomas* 858 F.2d 1347 (9th Cir. 1988)(The Love case)(dinseb).

⁸⁰ *Formaldehyde* at 392-6.

⁸¹ *Dithiocarbamate Task Force v. EPA* 98 F.3d 1394,1399 (D.C. Cir. 1996)

whether calculations about risk vary widely.⁸² Thus for example in many OSHA cases both industry and worker groups will seek judicial review arguing that the standard is over and under protective respectively.⁸³ Fourth, the agency must address the social context of the science and ask *how much consensus is there among the affected parties about the nature of the risk?* Thus for example how well accepted are the experts' views by the public or by industry.⁸⁴ Finally, *omissions from analysis which are important for decisions* must be identified. Whether an omission will be important for a decision will depend very much on the nature of the problem.⁸⁵

These different queries go beyond a simple analysis of data gaps and place scientific knowledge within a problem solving context. The key issue is whether analysis informs deliberation and in particular how analysis helps in solving the problem. The NRC stress that the more important question in assessing the success of analysis is to ask interested parties whether it adequately informs deliberation.⁸⁶ The utility of any analysis will depend on context. In some cases, where data is adequate, and the issue clearly defined, risk assessment can be a very useful tool. In engineering contexts this is particularly the case where the problem is one about a closed system. In cases, however, where one is concerned with highly politicised issues, there is a lack of good data, and the issues are very open ended, risk

⁸² *Formaldehyde* at 392-6.

⁸³ *Air Contaminants*

⁸⁴ Shrader-Frechette (1993) explores this in her analysis of the Yucca Mountain nuclear waste repository. Also see Douglas (1985).

⁸⁵ Thus for example regulation under 42 USCA §7412 requires regulation on the basis of best available technology.

⁸⁶ NRC (1996) at 152.

assessment may actually block effective problem solving. The decision making concerning Table S-3 which was the subject of *Vermont Yankee Nuclear Power Corp. v. NRDC*⁸⁷ (The *Vermont Yankee* case) is a case in point. The quality of analysis will be judged by similar criteria as seen under the rationalist paradigm including accuracy, explanation and the use of state of the art knowledge.⁸⁸

1.4 Examples: Deliberative Problem Solving in Action

As the deliberative paradigm depends very much on context the discussion of a number of examples is useful. The first example is the equipment leaks rule which was negotiated under §7412(d) of the Clean Air Act before its amendment in 1990.⁸⁹ The EPA rule was designed to control gas leaks which accounted for over one third of routine, non-accidental toxic air emissions. The negotiation began in 1989 under the assumption that the main issue was the identification of the factors that EPA should use to calculate the leak rates for different facilities. In other words, it began as a debate about what should be the nature of the analytical model they were using.⁹⁰ In September 1989 the EPA created a negotiating committee which was made up of representatives from the petroleum, chemical and pharmaceutical industries, state and local agencies and the Natural Resources Defense Council (NRDC). It reached a consensus in October 1990 and the final rule was promulgated in 1994.

⁸⁷ 435 US 519 (1978). See Chapter Four.

⁸⁸ NRC (1996) at 100-1.

⁸⁹ Freeman (1997) at 41-8.

⁹⁰ Ibid. at 43.

The group inspected chemical plants and challenged different groups data in a process which one commentator described as ‘sobering and embarrassing’.⁹¹ Yet as Freeman notes, as deliberation progressed, the methodological issues became less important. The inquiry concentrated more on why leaks occurred and what could be done about it. What became apparent was that such leaks were often caused by poor production processes and the solution was to draw up total quality management principles rather than to set standards. Thus through deliberation the problem could be better understood and thus a more appropriate solution could be found.

A similar story can be told in relation to the disinfectant by-products (DBP) rule made under the Safe Drinking Water Act (SDWA).⁹² This was done under the Negotiated Rulemaking Act 1990 and a committee deliberated the issue between November 1992 and June 1993. In setting the rule, EPA not only needed to find a balance between industry and consumer interests but also between the risks of microbiological infection and the risk of adverse health effects from the disinfectants. There was a great deal of scientific uncertainty on this latter issue. In choosing who should participate, the EPA hired a consulting firm who came up with a committee of 17 individuals. The SDWA gave very little leeway to the agency or the committee in defining the problem. Many on the committee saw the problem as one of pollution prevention rather than finding a maximum contaminant level. The committee thus began by listing what were the values inherent in a ‘good solution’. They also appreciated that there was a lack of analysis and so directed

⁹¹ Quoted in Freeman (1997) at 44.

⁹² NRC (1996) at 179-88

the Technical Working Group to their informational needs. There was a constant flow of communication between these two groups. Thus analysis was informing deliberation but deliberation was also directing analysis. The end result was more rigorous than anyone expected, took into account small water suppliers and created an innovative Information Collection Rule which required larger suppliers to collect information so as to inform the process.

There have also been other moves in the direction of more responsive regulation.⁹³ On March 16, 1995, President Clinton announced EPA's new XL program⁹⁴ which aims to achieve greater flexibility in regulation and in particular the granting of pollution permits. The EPA, industry and interested parties work together to create flexible and individualised regimes for individual sites.⁹⁵ While this program is not completely uncontroversial, it does highlight the move towards more responsive and deliberative means of regulation. Moreover, as the processes are open and formally involve other interested parties, they are less vulnerable to agency capture. As Freeman has also noted, many of these deliberations result in the development of a degree of trust between the parties.⁹⁶

1.5 The Deliberative Limits on Discretion

These examples illustrate the ability of deliberation to focus on problem solving in a more sensitive manner than the rationalist method does. Such a focus

⁹³ See Applegate (1998) and Hook (1993).

⁹⁴ Freeman (1997) at 55-66. XL standing for 'Excellence in Leadership'.

⁹⁵ Ibid. at 55.

⁹⁶ Ibid. at 71.

does not always result in a lack of conflict.⁹⁷ What it does result in is a more effective approach in cases where issues are highly politically charged and where information is scarce. Moreover, the problem solving aspect of deliberation ensures that participation is not a sprawling and unstructured affair. There are a number of important constraints on agency discretion.

First, the agency must attempt to solve a problem in the public interest. Thus deliberation and analysis must be directed towards problem solving. This form of problem solving must be active and responsive to a complex situation. The agency must establish that they attempted to solve the problem in a conscientious manner in the public interest. In doing so they need to consider a wide number of factors which depend on the issue at hand. Second, in doing so the primary basis for action will be deliberation which is informed but not dominated by analysis. Deliberation not only ensures that any action will be in the public interest but that the agency is not suffering from a problem of ‘tunnel vision’. Deliberation and analysis occur in tandem at all aspects of the decision making process. The line between informing and dominating deliberation is a fine one, but an important one to maintain. It is best done by ensuring that deliberation and the diagnosis of a problem frames analysis.

Third, openness and transparency of decision making is clearly important. This is not to say that every step of reasoning can be explained (experience will have a role to play) but that the direction of the decision making process must be understandable to an observer and that they can broadly gauge what are the

⁹⁷ NRC (1996) at 187.

influences on any particular decision or issue. It is important that agencies do not hide behind analysis when the real reason for making a decision is a value based one and at the same time that they do not simply engage in deliberation when they should be engaging in analysis.

Thus a number of core principles begin to emerge from the discussion. From a perspective of understanding what is reasonable deliberative action it can be said that it is action by an agency which is the *active and conscientious solving of a complex problem in the public interest. The means by which an agency does so is by deliberation informed by analysis. The decision making process should be transparent which is to say that observers should be able to understand what factors and values are informing a decision.* The deliberative paradigm does not direct that any particular decision making structure will be used but rather that procedures will be shaped to the problem at hand.

2. ‘Judges Are Not Automata’: Deliberation and the Courts

In Chapter One, the role of the court was divided into two sub questions. The first was how should a court judicially review expert decision making and secondly how should they review the evidentiary basis of a decision. These questions, are ultimately interrelated but it is useful to return to them to gain some understanding of how the deliberative paradigm varies from rationalism.

2.1 A Model of Responsiveness

Louis Jaffe argued that public administration was the ‘most intimate and complete mirror of our people’⁹⁸ and therefore good judicial review required ‘imaginative, resourceful and discreet judges’.⁹⁹ Likewise, Justice Frankfurter had a very rich and deliberative understanding of the role of public administration and the role he assigned to judges was equally as cultivated. He noted in *Universal Camera Corp. v. NLRB* (The *Universal Camera* case):

It cannot be too often repeated that judges are not automata. The ultimate reliance for the fair operation of any standard is a judiciary of high competence and character and the constant play of an informed professional critique upon its work.¹⁰⁰

A complex and substantive role for public administration thus means a complex and subtle role for the judiciary in carrying out judicial review. The courts’ approach under the deliberative paradigm will be a dynamic and responsive one. Moreover, it will not be easily captured in a series of formulae. The rationalist paradigm, in contrast not only casts public administration as an alien in a democratic land but also as illustrated in Chapter Five, casts the courts as ‘alien intruders’ in the world of efficient administration.¹⁰¹ As noted at the end of the previous chapter, under the rationalist paradigm and in light of other accountability structures, it is becoming more difficult to justify judicial review.

In contrast, the role of the courts under the deliberative paradigm is obvious. Courts are one of the few forums in which the intricate nature of public

⁹⁸ Jaffe (1965) at 322.

⁹⁹ Ibid. at 326.

¹⁰⁰ 340 US 474, 489 (1951)

¹⁰¹ *US v. Morgan* 307 US 183, 191 (1939).

administration can be judged against very broad standards of reasonable and non-arbitrary behaviour. As Sunstein has noted in the context of discussing civic republicanism, judicial review can ‘flush out’ arbitrariness because of the flexible nature of judicial inquiry.¹⁰² Moreover, while not ‘objective’,¹⁰³ the courts are a politically insulated forum and the judiciary is not professionally entangled in the details of any regulatory scheme. Judicial review thus stands in contrast to Presidential and congressional oversight, in which the process of review is not only more rigid but explicitly part of a larger political and regulatory agenda.

This is not to say that judicial review should be the only accountability mechanism. In this age of complexity, other tools of accountability can have limited roles to play. Judicial review however, represents the most adaptable and sophisticated forum for ensuring accountability. Under the deliberative paradigm it plays the primary role of not only ensuring that agencies do not ‘exceed’ their power but is a major source of understanding what that power is. As Edley notes judicial review should not be about constraining but rather about promoting ‘fluidity and feedback with respect to the norms of sound government’.¹⁰⁴

Moreover, such a view is consistent with long held perceptions of the court-agency relationship. For at least two thirds of this century the courts and administration have been recognised to be in a ‘partnership’.¹⁰⁵ As Justice Stone

¹⁰² Sunstein (1987) at 469 and Sunstein (1986) at 277.

¹⁰³ See Waldron (1990) at 120-2 for a discussion of judges and politics.

¹⁰⁴ Edley (1990) at 232.

¹⁰⁵ See Chapter Two generally and *Texas P.Ry. Co. v. Gulf & S.F. Ry Co.* 270 US 266 (1926); *US v. Morgan* 307 US 183, 191 (1939); *Far East Conference v. USA* 342 US 570, 575 (1952)(The *Far East* case); Attorney General’s Committee (1941) at 75; and even

noted in *US v. Morgan* the courts and agencies should aim towards ‘co-ordinated action’,¹⁰⁶ that is directed towards the problem identified by legislation. The courts’ task is not to remake the decision of the public administrator on its merits. Nor is it to absorb the administrative functions of an agency.¹⁰⁷ This concept of partnership was popular in the late 1960s and as noted in Chapter Four, was the basis for hard look review.¹⁰⁸ The problem however, was Judge Leventhal’s version of the ‘hard look’ led to rationalism. The partnership clearly must be a more pliable and elastic one.

2.2 Evidence in Context

In Chapter One, it was noted that the question of how a court should review expert decision making was accompanied by the question of how should they review the evidentiary basis for a decision. Under the deliberative paradigm, that question does not have an easy answer. As Justice Frankfurter also noted in *Universal Camera*:¹⁰⁹

Since the precise way in which courts interfere with agency findings cannot be imprisoned within any form of words, new formulas attempting to rephrase the old are not likely to be more helpful than the old. There are no talismanic words that can avoid the process of judgment. The difficulty is that we cannot escape, in relation to this problem, the use of undefined defining terms

Greater Boston Television Corp. v. FCC 444 F.2d 841, 850 (D.C. Cir. 1970)(The *Greater Boston* case).

¹⁰⁶ 307 US 183, 191 (1939). Also see *Far East* at 575.

¹⁰⁷ *Grey v. Powell* 314 US 402, 412 (1941).

¹⁰⁸ Leventhal (1974) at 512; *EDF v. Ruckelshaus* 439 F.2d 584, 597 (D.C. Cir. 1971); and Shapiro (1968) at 52.

¹⁰⁹ 340 US 474, 489 (1951).

This was the painful lesson that Kenneth Culp Davis learnt over twenty five years. Doctrines which require a *sharp* distinction to be made between fact and law or between substance and procedure tend to highlight the arbitrariness of these distinctions.¹¹⁰ Moreover, as evidence is not the only basis on which to make a decision, such a question will depend on context.

Thus as the aim of the courts should be to promote responsive rather than rigid structures of public administration the answer to this second question is that it depends on context. If certain evidence is the lynch pin of a solution then it should be scrutinised carefully. If however, evidence on a certain issue is not complete but accuracy is only desirable but not relevant then the reasonableness of the action does not depend on methodological rigour. This will be discussed in more detail below.

Finally, it should be noted that scope of review doctrine must be applied with *restraint*.¹¹¹ Restraint should be distinguished from deference. While deference suggests a wholesale reverence of administrative authority, restraint does not. Restraint is based on respect for the roles of administration, the courts and Congress. This means that courts should be faithful to legislative intent and also appreciative of the complex task of administrative agencies.¹¹² In particular, courts need to be aware that problems could have many viable solutions and that while they should be preventing problems of tunnel vision and unreasonableness they

¹¹⁰ Attorney General's Committee (1941) at 79, 88-9.

¹¹¹ *AFL-CIO v. Marshall* 617 F.2d 636 , 652 (D.C. Cir. 1979)(The *Marshall* case) and *Hodgson* at 476.

¹¹² The civic republicans have a similar outlook on this issue. See Seidenfeld (1992) at 1547.

should not be engaging in the creation of systematic agendas.¹¹³ Moreover, they need to be aware of the problems of avoiding ‘Monday morning quarterbacking’ as described in *Vermont Yankee*. Courts need to ensure that petitioners arguments are legitimate and substantive so that grounds of review do not become the ‘playthings of lawyers nor obstructions on the road to justice’.¹¹⁴

3. What Courts Should Demand of Expert Deliberative Agencies

Thus the deliberative paradigm of scope of review begins to take on more substance. Reasonable deliberative action is defined as the *active and conscientious solving of a complex problem in the public interest. The means by which an agency does so is by deliberation informed by analysis. The decision making process should be transparent which is to say that observers should be able to understand what factors and values are informing a decision.* The role of the court is a flexible one and is to ensure that agency action is accountable against this description of public administration and in light of the legislative mandate. How a court should scrutinise the evidentiary basis of a decision will depend on context.

Such a description above, would not be out of place in the Attorney General’s Committee report of 1941 or in cases such as *Table S-3, FCC v. RCA Communications*,¹¹⁵ and *SEC v. Chenery Corp.*¹¹⁶ There is much to be learnt from

¹¹³ Shapiro (1968) at 52.

¹¹⁴ *US v. Storer Broadcasting Co.* 351 US 192, 213 (1956)(The *Storer* case).

¹¹⁵ 346 US 86 (1952).

¹¹⁶ 318 US 80 (1943).

an analysis of past case law and as the Attorney General's Committee noted in 1941:

Like the agencies, judicial review is a complex of old and new, of historic survivals and purposive innovations.¹¹⁷

Stewart has also noted administrative law must be developed in response to 'evolving patterns of administrative decision and societal assessment of administrative performance'.¹¹⁸ The principles presented below are not only identifiable in the case law from four decades ago but have, as illustrated in Chapter Four, been the basis for decisions in the 1970s. Moreover, cases such as *Motor Vehicles Manufacturers Association v. State Farm Mutual Automobile Insurance Company*¹¹⁹ (The *State Farm* case) could be interpreted in such a manner. They are however not simply replications of the past but are based on an appreciation of present expert administration.

Below is a more detailed description of the deliberative paradigm. The next chapter is a *mock* deliberative style chapter judicially reviewing OSHA's recent methylene chloride rule - *Halogenated Solvent Industry Alliance v. OSHA* (The HSIA case).¹²⁰ The judgement serves a number of different purposes. First, it illustrates what the deliberative paradigm actually entails and should be read in tandem with the description below. As has been illustrated, scope of review

¹¹⁷ Attorney General's Committee (1941) at 76.

¹¹⁸ Stewart (1978) at 1820.

¹¹⁹ 463 US 29 (1983).

¹²⁰ The methylene chloride rule as of July 1998 is still under negotiation. The United Auto Workers and Halogenated Solvent Industry Alliance have actually filed petitions in the D.C. Circuit but judicial review will depend on the outcome of present discussions. The arguments used in the case are based on the broad description of their stated cases. The judgement is based on a review of the 120 page final rule published in the Federal Register in January 1997.

doctrine can only really be understood in practice. *State Farm* is a set of rather simplistic statements, the implications of which are only made clear by application. Second, it shows how the deliberative paradigm differs from a rationalist one. It should be compared with nearly any decision discussed in the previous chapter.¹²¹ Finally, the judgement illustrates that the type of reorientation required is not unrealistic.¹²² It should be noted that as the judgement is being used as an example of the deliberative paradigm it is not entirely realistic. The basis for review is not the entire record but rather the final rule and associated documentation (which is over 100 pages long). Likewise, precedent while respected is treated in a flexible manner.

3.1 The Nature of the Record

The first element of the deliberative paradigm, is that like the rationalist paradigm, reasons for administrative action should be given and documents should be placed on an administrative record. There is nothing controversial about this and it is quite consistent with the notice and comment rulemaking provisions under §553. The deliberative paradigm does not put blind faith in expertise.¹²³ The logic behind the need to articulate reasons however, is slightly different from that under the rationalist paradigm. Reason giving establishes that expert administration actually exercised their discretion and used their judgement.¹²⁴ In contrast, the

¹²¹ *Air Contaminants and Corrosion Proof*.

¹²² *Simms v. NHTSA* 45 F.3d 999,1004 (6th Cir. 1995)(The *Simms* case) and *Fisherman's Dock Inc v. Brown* 75 F.3d 164 (4th Cir. 1996).

¹²³ *New York v. US* 331 US 284, 357 (1947).

¹²⁴ *SEC v. Chenery Corp* 318 US 80, 93 (1943) (The *Chenery I* case).

rationalist paradigm, requires reasons to show that administration has stayed within analytical boundaries.

Reason giving also serves a number of other purposes. It allows for other parties to deliberate by making decision making transparent.¹²⁵ The efficacy of the deliberative paradigm depends on the candour of decision makers.¹²⁶ As Justice Frankfurter noted in *Phelps Dodge Corp v. NLRB*:

The administrative process will best be vindicated by clarity in its exercise.¹²⁷

An agency should state the actual grounds for a decision whether they be factual or policy based. Thus, the articulation of reasons is not about constraining power¹²⁸ but rather about assisting in the problem solving process. Through the articulation of reasons, a richer and more substantive understanding of public administration can be gained. A similar point can be made in relation to documents placed on the administrative record. Under the rationalist paradigm, because the agency was primarily a fact finder, most documentation needed to be directed at the factual issues. Under the deliberative paradigm, the factors that an agency can take into account are far wider and thus the type of relevant information theoretically broader. What is important is that the record should show that there has been a *conscientious* exercise of discretion to solve the problem that the legislation is aimed at.¹²⁹

¹²⁵ *Beaumont, S.L. & W.R. Co. v. United States* 282 US 74, 86 (1930). For the importance of transparency see *Marshall* at 651-2.

¹²⁶ Seidenfeld (1992) at 1550.

¹²⁷ 313 US 177, 197 (1941).

¹²⁸ *Chenery I* at 94.

¹²⁹ *Phelps Dodge* at 197 and *Chenery I* at 94.

3.2 Problem Solving and the Legislative Mandate

The starting and the constant reference point for scope of review under the deliberative paradigm is an understanding of the problem at hand. Under the rationalist paradigm, problem solving is defined primarily as a factual one. Thus in *Industrial Union Department, AFL-CIO v. American Petroleum Institute*¹³⁰ (The *Benzene* decision) the problem before OSHA was identified by the plurality as one of factually identifying a ‘significant risk’.¹³¹ In contrast, under the deliberative paradigm there is a presumption, in risk regulation, that such problems are complex, polycentric and will to some extent be shrouded in scientific uncertainty.¹³² The expertise of the administrative agency is in the solving of such problems.¹³³ Their solution requires not only analysis but also deliberation with interested parties to establish what the problem actually is. Moreover, an agency will need to balance up many different factors and to some extent deal with ‘imponderables’.¹³⁴ A solely analytical approach is an incomplete one.

There are two major aspects of problem solving. Interpreting legislation and identifying the problem. While a theory of interpretation is beyond the scope of this thesis some attention needs to be paid to legislation as it will always be the prime source of administrative authority. Thus, a careful reading of the legislation is the essential starting point for understanding the problem. A careful reading does not mean either a textualist or a rigid interpretation. What is important is to gain an

¹³⁰ 448 US 607 (1980).

¹³¹ Also see *Corrosion Proof*.

¹³² See *Hodgson and Ethyl*.

¹³³ *US v. Carolina Freight Carrier Corp.* 315 US 475, 482 (1942).

understanding of ‘the direction of the Act’.¹³⁵ This has a number of aspects. First, there needs to be consideration of what type of factors that Congress felt were relevant to the agency’s decision making. As has been illustrated however in many cases Congressional statements of intent and the legislative history are not very helpful.¹³⁶ A court will still be left with the problem of defining ambiguous terms such as what is an ‘unreasonable risk’ or what is an ‘adequate margin of safety’.¹³⁷

The construction of the Act can be a more helpful indicator than interpreting such legislative terms. Thus for example in *Safe Buildings Alliance v. EPA*¹³⁸ Judge Edwards in determining what was a reasonable exercise of discretion under the Asbestos Hazard Emergency Response Act 1986 pointed to many of the features of the Act including that it provided for research in the face of scientific uncertainty and a tight timetable for action. He concluded that the Act required an ‘evolving administrative response’.¹³⁹ Similar approaches can be seen in other cases.¹⁴⁰ Thus for example, in Chapter Four, the courts in early OSHA cases using the informal rulemaking provisions under the OSH Act as an indicator that OSHA rulemaking primarily involved legislative style policy judgement.¹⁴¹ This however can be problematic because of the very confused nature of the rulemaking

¹³⁴ *International Association of Machinists, Toolmakers & Diemakers Lodge No. 35 v. NLRB* 311 US 72, 79 (1940).

¹³⁵ *NLRB v. Seven Up Bottling Co. of Miami* 344 US 344, 348 (1953).

¹³⁶ See Chapter Three.

¹³⁷ Toxic Substances Control Act 15 USCA §2605(a) and Clean Air Act 42 USCA §7409(b)(1) respectively.

¹³⁸ 846 F.2d 79, 81-2 (D.C. Cir. 1988).

¹³⁹ 82.

¹⁴⁰ *Texas P. Ry Co. v. ICC* 162 US 197, 211 (1896) and *Marshall* at 658.

¹⁴¹ *Synthetic Organic Chemical Manufacturers v. Brennan* 503 F.2d 1155, 1158 (3rd Cir. 1974).

procedures under most risk regulation statutes. What can be said however is that in most cases Congress wished for an agency to engage in both deliberation and analysis. Thus for example in *HSIA*, the court stresses the importance of the statutory requirements and structures their analysis around it.

The second and more important aspect of problem solving is identifying the nature of the problem itself. As noted above, the type of inquiry proposed by the NRC helps distinguish cases on factors which are highly relevant to good regulation. While this procedure should not be set in stone, some form of problem identification needs to take place and this is an important part of any conscientious exercise of discretion. Thus in *Ethyl* Judge Skelly Wright spent numerous pages discussing what was the nature of the leaded gasoline problem. Likewise in *HSIA*, the court is concerned from the outset with the unique aspects of methylene chloride use. Moreover, the identification of the problem and the interpretation of legislation will go hand in hand. Thus for example in *Amoco Oil Co. v. EPA*¹⁴² Judge Skelly Wright's understanding of the complexity of decision making influenced his interpretation of the Clean Air Act.

3.3 The Conscientious Exercise of Discretion

The most significant aspect of the deliberative paradigm is that expert public administration has exercised their discretion in an active and conscientious manner. This justifies their label as expert problem solvers. Only through their expertise, can large polycentric and fluid problems be solved in a responsive and creative way. As noted above, a crucial part of this is the giving of reasons. It is not

only that expert administration must show that their decision was the product of ‘fair consideration’ but that actively deliberated and analysed the issue. This proactive approach is not only required in the solving of a problem but also in the identification of it.

There are a number of features of the need to establish a conscientious exercise of discretion. First, the application of ‘abstract sterile policy’ will simply not suffice.¹⁴³ Thus for example in *FCC v. RCA Communications* (The *RCA Communications* case) the Court struck down a decision of the FCC which was based on a conclusion that the FCC Act required a policy based on competition. The concern was that the FCC had made a crude assumption and not exercised their judgement.¹⁴⁴ Likewise, Justice Marshall in *Benzene* scrutinised the record to make sure that OSHA had not applied their generic cancer policy in a simplistic fashion.¹⁴⁵ It is not only that there is no expectation that there is a universal formula to apply¹⁴⁶ but that an approach based on an elementary rendering of the problem is likely to be suspect.¹⁴⁷ This is in contrast to the rationalist paradigm, where policy is expected to play a narrow and limited role. In *AFL-CIO v. OSHA*¹⁴⁸ (The *Air Contaminants* case) the court was ultimately suspect of an approach which did not

¹⁴² 501 F.2d 722, 735 (D.C. Cir. 1974).

¹⁴³ *FCC v. RCA Communications* 346 US 86, 94 (1952)

¹⁴⁴ 96.

¹⁴⁵ 695.

¹⁴⁶ *FPC v. Hope Natural Gas Co.* 320 US 591, 602 (1944)(The *Hope Natural Gas* case); *ICC v. Jersey City* 322 US 503, 513 (1944); and *FERC v. Pennzoil Producing Co* 439 US 508, 517 (1979).

¹⁴⁷ See *Wisconsin v. FPC* 373 US 294,309 (1969).

¹⁴⁸ 965 F.2d 962 (11th Cir. 1992).

use quantitative risk assessment and which made flexible use of safety factors.¹⁴⁹ Likewise, the use of cost/benefit analysis has been promoted under the rationalist paradigm because it reduces reliance on policy considerations.¹⁵⁰

Second, the exercise of discretion needs to be in the public interest. This term is of course complex but what it does mean is that problem solving cannot be seen as a trade-off between private interests. As Frankfurter noted:

The Communications Act was not designed as a code for the adjustment of conflicting private interests.¹⁵¹

Agencies are not pluralist forums of interest representation. The best means by which a court can guarantee that such a trade-off has not occurred is to ensure that there has been an active and substantive exercise of judgement on the part of an agency. While this cannot completely prevent interest group bargains it can force an agency to candidly direct themselves towards the process of problem solving in the public interest.

Third, the concept of ensuring such a conscientious exercise of discretion is not new to judicial review doctrine. Implicit in the concept of hard look review was the notion that it is the agency which should be taking a hard look at an issue. As Judge Leventhal noted in *Greater Boston Television Corp. v. FCC*¹⁵² a court should intervene if:

The agency has not taken a ‘hard look’ at the salient problems, and has not genuinely engaged in reasoned decision making.

¹⁴⁹ See Chapter Five.

¹⁵⁰ *International Union, UAW v. OSHA* 938 F.2d 1310, 1319 (D.C. Cir. 1991).

¹⁵¹ *Radio Corp. of America v. US* 341 US 412, 423 (1951).

¹⁵² 444 F.2d 841, 851 (1970).

Likewise, case law stretching back to the turn of the century emphasises such a view.¹⁵³ The important feature however, of the deliberative paradigm is that in taking a hard look at the problem there is no expectation that there will be a certain level of analysis. As was noted in Chapter Four, the concept of a ‘hard look’ can mean many different things. The hard look proposed here is that put forward by Chief Judge Bazelon which is that:

A reviewing court must assure itself not only that a diversity of informed opinion was heard, but that it was genuinely considered.¹⁵⁴

Thus there he was concerned with the fact that there had been little deliberation on an issue of major public concern. As Bazelon noted in the same case:

When only one side of a controversial issue is developed in any detail the agency may abuse its discretion by deciding issues on an inadequate record.¹⁵⁵

The nature and extent of deliberation will very much depend on the problem at hand. Thus in comparing cases like *Alabama Power* and *American Dental* the latter clearly requires a wider deliberative approach. The key test is whether there has been a meaningful dialogue about the major issues which embodies the main perspectives on an important issue.¹⁵⁶

Deliberation, however, needs analysis and a ‘cursory development of the facts’ will not suffice.¹⁵⁷ In scrutinising evidence there will be two crucial factors to

¹⁵³ See the discussion in Chapter Two generally.

¹⁵⁴ *Table S-3* at 646.

¹⁵⁵ 646.

¹⁵⁶ *Ibid.*

¹⁵⁷ *Table S-3* at 655.

consider. First, analysis is not for its own sake and it must inform deliberation. As Justice Douglas noted in *Sunshine Anthracite Coal Co. v. Adkins*¹⁵⁸:

To require more would be to insist on a degree of exactitude which not only lacks legal necessity but does not comport with requirements of the administrative process.

As the NRC noted it is important to get the right science for the problem and the amount of analysis required is very much context driven. This approach can be seen in the definition of substantial evidence of Chief Justice Hughes in *Consolidated Edison Co v. NLRB*¹⁵⁹:

Substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.

The concept of ‘reasonable mind’, while an ambiguous one, does denote the notion that the amount of evidence will very much depend on the problem to be solved. Again, the NRC factors outlined above could be of assistance. The second issue is how a court should review such evidence. In the main they should ensure that the evidence has been opened up to scrutiny and that any *relevant and contestable* issues were subject to deliberation. Accuracy will be one factor of ensuring this has occurred but must be viewed in context.

This deliberative approach differs from the rationalist paradigm in that the reasonableness of the decision does not primarily depend on the accuracy of the fact finding. Thus in *Benzene* the decision was struck down because OSHA had not adequately met certain evidentiary requirements. This however, was not the major concern of the dissenting Justice Marshall but rather he judged the decision against

¹⁵⁸ 310 US 381, 398 (1940).

¹⁵⁹ 305 US 197, 230 (1938).

its overall context. This may include some factual issues. Thus in *HSIA* the court does scrutinise how OSHA handled the evidence relating to animal studies. They do not do it just to ensure methodological accuracy but rather to ensure that such a highly controversial issue was opened to scrutiny and not made within a vacuum.

4. Summary and Critique

The test proposed above cannot be pigeonholed as one solely concerning procedure, substance or outcome but rather is a mixture of all three. What is ultimately the concern of the court is whether there has been a conscientious exercise of discretion and in establishing this the court will not only be concerned with the substance of the decision but also with how an agency mobilised procedure and how the proposed outcome relates to their understanding of the problem. The emphasis on procedure is not to say that courts should impose procedural requirements as this can be an undesirable ‘radical therapy’.¹⁶⁰ What it does state is that rulemaking procedure is an important factor in problem solving. In most cases, the court should be ensuring that agencies are developing procedural formats which are sensitive to the problem.¹⁶¹ As Bazelon noted in *Table S-3* it is:

not proper for a reviewing court to *prescribe* the procedural format which an agency must use to *explore* a given set of issues.¹⁶²

The deliberative paradigm is not a prescription of a set format of procedure. Only in very extreme cases will this occur. In rare cases this might result in an explicit procedural suggestion but in most cases it should only result in remand, leaving the

¹⁶⁰ *Table S-3* at 655.

¹⁶¹ *Ibid.* at 656, *Vermont Yankee* at 543.

¹⁶² 644. Emphasis supplied.

question of appropriate procedures up to the agency. Moreover, in judging the ‘reasonableness’ of a decision the court will compare the problem to be solved with the proposed outcome.¹⁶³ This does not require empirical evidence that any particular result will be forthcoming but rather requires a holistic scrutiny of the standard. Thus for example in *HSIA* in considering the question of whether the standard falls into a ‘zone of reasonableness’ the courts considers the type of factors that OSHA took into account in developing the standard.

There is no pretence that deliberative scope of review is the perfect answer. Yet as can be seen from *HSIA*, scope of review under this paradigm does allow the court to engage in substantive review without succumbing to analytical opportunism. Moreover, the court shapes its task to that of the agency. This means that creativity on the part of the agency will not be stifled by a rigid accountability structure.

4.1 The Possible Pitfalls

There are three main disadvantages with the deliberative approach but these are more perceived than real. First, it does result in greater judicial freedom and could theoretically translate into an abuse of power on the part of the judiciary. We cannot get round the problem that the quality of judicial review will depend ultimately on the competence and integrity of the judiciary.¹⁶⁴ As we have seen however, the rationalist approach is not only arbitrary but problems with it are hidden below an analytical dialogue that may bear little relation to what

¹⁶³ *Hope Natural Gas Co.* at 602.

¹⁶⁴ Frank (1942) at 9 and Shapiro (1988) at 169.

administrators are actually doing.¹⁶⁵ In contrast, the exercise of the court's discretion is more explicit in relation to the deliberative paradigm. Thus for example in *HSIA*, the factors on which the decision was made are very clear. This allows judges to be 'keenly alive to their own prejudices'¹⁶⁶ and thus both they and the public to be aware of the dangers of personal arbitrariness.

The second potential problem in the deliberative approach is that as Coglianese has argued it simply opens up another arena for possible conflict.¹⁶⁷ Petitioners can use deliberation as another ground for review and it may increase the problem of 'Monday morning quarterbacking' and thus ossification. Such an argument harks back to the Supreme Court in *Vermont Yankee*. Yet ossification is less likely because the deliberative paradigm is always requiring the court to ask what is the relevance of a certain argument to the main process of problem solving. This is illustrated in *HSIA* with the discussion of substitution risks. There is of course no guarantee that a court will not impose greater analytical or deliberative requirements than needed and the line between accountability and ossification is a fine one. What it does provide, however is a mechanism for ensuring that danger is reduced.

The final potential problem is that the deliberative paradigm simply does not force courts to scrutinise agency decision making carefully enough and that it will result in serious agency analytical errors going unchecked. Such critics argue that the deliberative paradigm of the 1930s was extremely deferential. Yet the

¹⁶⁵ Love and Shapiro & Levy (1995) and Revesz (1997).

¹⁶⁶ Frank (1942) at 7.

¹⁶⁷ Coglianese (1997) at 1321.

question of deference is separate from the question of expertise. A court can be deferential under either the rationalist or the deliberative paradigm. The issue is of course what model of public administration the decision is being judged against. In *HSIA* the level of scrutiny is not a deferential one and important and relevant scientific assumptions are scrutinised.

4.2 A Promise of Responsiveness

The deliberative paradigm offers up far more advantages than perceived pitfalls. The first and most important is that the institutional roles that it *prescribes* to both administration and the courts are far more compatible with the actual potential of both. Thus, in relation to expert public administration, rather than expecting a level of accuracy which is neither achievable or in many cases relevant, it demands that administration is active and responsive in the process of problem solving. Thus in *HSIA* the court is ultimately judging the MC standard against an understanding of the problem. The deliberative paradigm is not requiring the court to apply a set of inflexible rules but rather be pliable in their approach to principle. This is what courts have long been recognised as well suited to doing and is far more in line with the institutional role that Justice Marshall envisioned that they should have in the *Benzene* decision.

This has both practical and theoretical advantages. From a practical point of view it should result in less ossification being caused by court decisions.¹⁶⁸ The only successful grounds of review will be those directly concerned with the quality

¹⁶⁸ The ossificatory effects of other accountability mechanisms will still exist. See McGarity (1992).

and substance of the problem solving process. Agencies will in the long run not need to be concerned with collecting data on issues which are not directly relevant. Thus in *HSIA*, the court could have demanded far more evidence on the link between mice, other rodents and humans as well as requiring more information about the economic analysis. As the focus of the deliberative paradigm is the concept of problem solving this axis can be used as a way of a court establishing their restraint. The end result of this is to promote a more responsive and flexible approach to regulation. Something, that those on both sides of the political divide cherish.¹⁶⁹ Moreover, it should arguably require less resources. From a long term perspective, and in light of the NRC discussion above, the deliberative paradigm does allow for an explicit factoring in of resource constraints.

The most important long term benefit of this is that judicial review is an important starting point for changing an understanding of administration more generally. Thus for example the *Benzene* decision was a crucial catalyst for the 1983 NRC report. Leventhal's 'hard look review' was also an important basis for legislative reform. The direction that a decision such as *HSIA* points is quite different. It demands a problem orientated and deliberative approach to regulation. It opens up the way for many regulatory strategies which are not only flexible and creative but grounded in deliberation.

¹⁶⁹ Howard (1994) and Williams & Matheny (1995).

5. Beyond the Courts - Legislating for the Future

It is beyond the scope of this thesis to consider directly issues of legislative reform and *HSIA* is not based on an expectation that there will be any. At the same time, the role of the legislation is clearly an important one and the potential for this type of reform should be considered, particularly in this era of Congressional debate on the issue. Moreover, by doing so the nature of required change to move towards the deliberative paradigm can be gauged.

The necessity of legislative reform depends very much on the legislative context. Thus for example, the APA and the OSH Act are very open ended pieces of legislation which allow for a great deal of administrative flexibility. There is no reason why both these statutes cannot be read from a deliberative perspective. The APA was subject to such analysis in the 1950s and as noted in *HSIA* the OSH Act is easily capable of such a reading. Likewise the ‘arbitrary and capricious’ and ‘substantial evidence’ tests are open to numerous interpretations. In contrast, the rulemaking procedures under the Clean Air Act and Safe Drinking Water Act include very specific and rationalist rulemaking procedures. As legislated rulemaking procedure is the starting point for understanding the task of an agency, these provisions can act as barriers to effective change.

Any legislative reform should be as general as possible. As illustrated in previous chapters, the courts have on the whole been very successful at developing a body of doctrine without legislative assistance. Problems can start to arise when they attempt to factor Congressional intention into that equation.¹⁷⁰ The scope of

¹⁷⁰ Lynch (1996).

review provisions in the OSH Act are a case in point. Legislative reform, however, need not be limited to specific judicial review provisions. Outlined below are two possible reforms. Among them is *not* an attempt to adjust the wording of the substantive review standards. As is clear from the analysis above the arbitrary and capricious and substantial evidence tests can only be understood in context. The readjustment of wording would only cause greater confusion and thus it is generally desirable to stay with the present framework.

5.1 The Identification of Complex Goals

One important reform may be the explicit recognition that the goals or factors that need to be taken into account in legislation are numerous and often contradictory. Such a reform would ensure that the both courts and agencies would not attempt to identify single unitary goals as the plurality did in *Benzene*. By making explicit complexity and polycentricity, Congress is not only promoting a deliberative reading of the Act but also indicating which factors are important in problem solving. A good example of this approach is that in the Magnuson Fishery Conservation and Protection Act which outlines 10 standards which should be considered in the preparation of a fishery management plan. These include that a plan should be set on the best scientific information available, that over fishing should be prevented, that conservation measures should not discriminate between states, that plans should promote efficiency and conservation, that bycatch should

be limited and that measures should promote human life at sea.¹⁷¹ As Circuit Judge Kleinfeld noted in *Alliance Against ITQs v. Brown*:¹⁷²

There is a necessary tension perhaps inconsistency among these objectives.

The explicit recognition of the contradictory aims of regulation can help assist in recognising the complexity of problem solving in areas such as these. Fishery management is very much a form of risk regulation and thus similar principles could easily apply. Moreover such a model assists in moving the focus of decision making away from the requirement of analysis.¹⁷³

5.2 Rulemaking Procedure

Reform to rulemaking procedure is clearly another important aspect to reorienting the administrative process since questions about scope of review are fundamentally intertwined with rulemaking procedure.¹⁷⁴ Yet while legislative reform can be a catalyst for change it needs to proceed carefully and the breadth and the nature of any reform will depend on context. There are a number of dangers with any legislative reform. First, any procedure should be very flexible and give a wide berth to agencies to mould procedure to the problem at hand. Thus, although the recent trend has been otherwise,¹⁷⁵ reform should not create detailed procedures.¹⁷⁶ The APA was based on such an assumption, and the decision of the

¹⁷¹ 16 §1851(a). Note amendment in 1996 adding three new principles and adjusting one.

¹⁷² 84 F.3d 343, 349 (9th Cir. 1996).

¹⁷³ See Flournoy (1991) at 386-389.

¹⁷⁴ See the discussion in Chapter 4.

¹⁷⁵ Safe Drinking Water Amendments 1996; Food Quality Protection Act 1996; and the proposed amendments discussed in Chapters Three and Five.

¹⁷⁶ This has been long recognised. See Landis (1938) at 70 and NRC (1996) at 142.

Supreme Court in *Vermont Yankee* was as Scalia noted ‘an affirmation rather than a repudiation of the 1946 ‘settlement’.¹⁷⁷ This is not to say that courts should not intervene on procedural issues but rather that administrative procedure should not become rigid so as to be inelastic. Rigid legislation cannot only hinder problem solving but also freeze reform. The Clean Air Act Amendments of 1977 are good examples of this. Any legislative scheme needs to be adaptable in light of experience and changed administrative agendas. As Judge Leventhal noted in *American Airlines Inc. v. Civil Aeronautics Board*¹⁷⁸

It is part of the genius of the administrative process that flexibility permits adoption of approaches subject to expeditious adjustment in the light of experience.¹⁷⁹

Secondly, if legislative reform is to promote deliberation, it must be the central focus of rulemaking. Thus as noted above, the Negotiated Rulemaking Act, while some what successful is ultimately an adjunct to rationalist rulemaking.¹⁸⁰

6. Conclusion

Over fifty years ago Jerome Frank, warned us of the dangers of thinking that public administration could be transformed into a ‘piece of automatic machinery’.¹⁸¹ He wrote against a background of debate over the future APA. That statute ultimately came to embody a very flexible understanding of what was a

¹⁷⁷ Scalia (1978) at 378. Also see *Storer and FPC v. Texaco* 377 US 33 (1964); an *US v. Florida East Coast Railway Company* 410 US 224 (1973).

¹⁷⁸ 359 F.2d 624 (D.C. Cir. 1966).

¹⁷⁹ 633.

¹⁸⁰ Wald (1997a) at 1471.

¹⁸¹ Frank (1942) at 3.

reasonable exercise of agency discretion. Over thirty years ago, in 1965, Jaffe echoed Frank's statements. He noted:

Let us rid ourselves of the illusion that expertise will produce formulas of demonstrable objectivity for resolving conflict of interests involved in regulatory programs.¹⁸²

Jaffe wrote this on the cusp of the emergence of a new form of social regulation. He also wrote at a time where there was increasing distrust of government and greater confusion over the roles of courts and agencies. A subtle and more complex understanding of expertise became lost in the myriad of narratives of the 1970s. By the mid 1990s scope of review is underpinned by the mechanical concept of expertise which both Frank and Jaffe argued it should never be.

It has not been the aim of this thesis to cast blame to find a single source for the present state of case law. As has been illustrated, judicial review is not only complex but also takes place against a rich and vibrant backdrop of political debate. Moreover, the history of the modern administrative state has very much been a debate between deliberative and rationalist approaches to expert administration.¹⁸³ What has been illustrated is that there are different ways which a court can judicially review expert decision making under scientific uncertainty. The present state of case law is not an inevitability. Only through an unpacking of the concept of expertise can we start to make sense of our present predicament as well as find a framework for future reform.

The solution suggested here is not a perfect one. The courts will always walk a fine line between ensuring accountability and contributing to the

¹⁸² Jaffe (1965) at 25.

ossification of the administrative process. However, under the deliberative paradigm that problem is less of a threat because the legitimacy of decision making is judged against deliberative problem solving rather than accurate fact finding. The role of both the courts and public administration is transformed from being a rigid and mechanical one under the rationalist paradigm to a far more substantive and responsive one under the deliberative.

¹⁸³ Cook (1996) and Morone (1998).

Chapter Seven¹
Halogenated Solvent Industry Alliance v.
OSHA
United Auto Workers v. OSHA,
(21st Cir., 1998)

Circuit Judge: This challenge to OSHA's final methylene chloride rule² involves complicated questions about how public administration should regulate the working environment of American citizens. At the best of times it is not a simple issue involving as it does many questions about the economic viability of industries, workers' rights, and the legitimacy of government control. These questions are made even more complex when we are dealing, as we are here, with regulation of a chemical on which there is little conclusive scientific data. The Occupational Safety and Health Administration (OSHA) is very much regulating on the 'frontiers of scientific knowledge'.³ The complexity and difficulty of the issues involved are illustrated both by the complicated nature of the rulemaking procedure and the wide number of arguments put before us by both industry and labour unions.

¹ A copy of the final rule along with accompanying useful documentation can be found at www.osha-slc.gov/SLTC/methylenechloride/index.html. OSHA's general web site is at www.osha.gov.

² 62 Fed. Reg. 1494 (January 10 1997).

³ *Industrial Union Dept. AFL-CIO v. Hodgson* 499 F.2d 467, 474 (D.C. Cir. 1974) (The *Hodgson* case).

1. The Occupational Safety and Health Act

Our starting point for analysis is the Occupational Safety and Health Act (OSH Act). We do not read this with an expectation that it will provide precise guidelines for what OSHA and the court must do but rather to gain some understanding of the nature of OSHA's role.⁴ The OSH Act entrusts the Secretary of Labour (and thus effectively OSHA) with very broad rulemaking powers so as to provide 'safe or healthful employment and places of employment'.⁵ In setting standards there are no perfect formulas for OSHA to follow.⁶ Problems of occupational safety and health are notoriously complex and polycentric. In the past OSHA has regulated a wide array of subject matter including but not limited to the risks of HIV infection, brown lung disease, electrocution and cancer.⁷ As well regulation can require rules in relation to many things including lavatories, clothing, engineering controls and medical surveillance.⁸

In this case we are concerned with rulemaking under the 'toxic' substances provision of §655(b)(5). This standard applies to substances:

⁴ *Safe Buildings Alliance v. EPA* 846 F.2d 79, 81-2 (D.C. Cir. 1988) (The *Safe Buildings* case); *Automatic Parts & Accessories Association v. Boyd* 407 F.2d 330, 336 (D.C. Cir. 1968) and *Boating Industry Association v. Boyd* 409 F.2d 408, 411 (7th Cir. 1969).

⁵ 29 USCA §652(8).

⁶ *FPC v. Hope Natural Gas Co.* 320 US 591, 602 (1944) (The *Hope Natural Gas* case); *ICC v. Jersey City* 322 US 503, 513 (1944); and *FERC v. Pennzoil Producing Co* 439 US 508, 517 (1979).

⁷ See *American Dental Association v. Martin* 984 F.2d 823 (7th Cir. 1993) (The *American Dental* case); *American Textile Manufacturers v. Donovan* 452 US 488 (1981) (The *Cotton Dust* case); and *Alabama Power Co. v. OSHA* 89 F.3d 740 (11th Cir. 1996) (The *Alabama Power* case).

⁸ *Associated Industries of New York Inc. v. US Dept. of Labour* 487 F.2d 342 (5th Cir. 1973) (The *Associated Industries* case); *Cotton Dust*; and *American Dental*.

which are frequently undetectable to the casual observer because they are subtle or develop slowly or after latency periods.⁹

Furthermore, there is often very little information about such risks. As Judge Bazelon noted in *AFL-CIO v. Marshall* (The *Marshall* case) Congress did not expect full scientific certainty but only the ‘best available scientific evidence’.¹⁰ Congress was quite aware that in many cases there would not be conclusive scientific proof of harm but still desired that OSHA implement rules to protect worker safety.¹¹

How OSHA should act in such cases is something which has long troubled courts.¹² While it has been well accepted that decisions cannot be ‘anchored securely and solely in demonstrable fact’¹³ it is not obvious how OSHA should carry out their mandate. The last twenty years has been a period of experimentation on the part of courts and agencies in exploring this problem. From our perspective what is obvious is that effective and responsible rulemaking under the OSH Act is not about establishing proof but rather requires active and conscientious action on the part of OSHA in fulfilling their legislative mandate. This includes a judicious mixture of deliberation, analysis and experience.¹⁴ This is reflected in the broad

⁹*International Union, UAW v. OSHA* 938 F.2d 1310, 1313 (D.C. Cir. 1991) (the *Lockout/Tagout I* case). Also see *United Steelworkers of America v. Marshall* 647 F.2d 1189, 1245 (D.C. Cir. 1980) (The *United Steelworkers* case)..

¹⁰ 617 F.2d 636, 658 (D.C. Cir. 1979). See also *Fisherman’s Dock Co-op v. Brown* 867 Sup. 385 (E.D. Va. 1994).

¹¹ *Society of Plastics Industry Inc. v. OSHA* 509 F.2d 1301, 1308 (2nd Cir. 1975)(The *Society of Plastics* case).

¹² *Synthetic Organic Chemical Manufacturers Association v. Brennan* 503 F.2d 1155, 1159-60 (3rd Cir. 1974) (The *Synthetic I* case); *Society of Plastics* at 1308; and *Hodgson* at 474

¹³ *Hodgson* at 476.

¹⁴ *Amoco Oil Co. v. EPA* 501 F.2d 722, 735 (D.C. Cir. 1974) and *American Airlines Inc v. Civil Aeronautics Board* 359 F.2d 624, 633 (D.C. Cir 1966).

informal rulemaking provisions and other powers granted to OSHA under the OSH Act.¹⁵ The rulemaking provisions are essentially the notice and comment procedures under §553 of the Administrative Procedure Act (APA) but also promote interaction between the public and OSHA. The rulemaking process explicitly recognises the role of interested parties in notifying OSHA of problems requiring regulation¹⁶ and the opportunity for public comment including a hearing.¹⁷ Responsible decision making will thus not be able to be easily captured in a rigid set of rules for action.¹⁸

2. The Methylene Chloride Standard

Methylene Chloride (MC) also called dichloromethane, is a colourless volatile liquid which is one of the most ‘widely used organic solvents’ in general industry construction, and shipyard employment and can be bought at a local hardware store. It is used mainly in paint stripping, metal cleaning and polyurethane foam manufacturing.¹⁹ It is a substance used by many small businesses and although OSHA estimate that about 237,000 employees are exposed to MC,²⁰ there are 91,624 establishments which are potentially affected by the standard who employ a total of 5.6 million people.²¹

¹⁵ Also see *Safe Buildings* at 81-2.

¹⁶ §655(b)(2)

¹⁷ §655(b)(3)

¹⁸ *Hodgson* at 474-6 and *Synthetic I* at 1158.

¹⁹ Other uses include: film base manufacturing, polycarbonate resin production, aerosol packaging, adhesives manufacturing and use, and the formulation of solvents.

²⁰ 62 Fed. Reg. 1564. All future page references are to this final rule.

²¹ 1565.

The two main modes of exposure are inhalation and skin exposure. Short term exposure to MC in high concentrations acts as an anaesthetic, causes vomiting, nausea and headaches and in some cases can cause death.²² Every year OSHA is notified of several fatalities caused by MC exposure.²³ It can also cause skin irritation, respiratory irritation and aggravate symptoms of angina. Chronic, long term exposure has been found to cause cancer in mice.²⁴ At high concentrations, MC has a chloroform like odour but below 300ppm to 100ppm it is odourless. Thus employees can be quite unaware that they are inhaling the substance.

The problems of MC exposure have long been recognised and OSHA in their final rule document the history.²⁵ In 1986 OSHA issued an advance notice of proposed rulemaking in relation to MC. An advance notice is not required under the OSH Act but the notice acted as a means of getting interested parties involved. At that time, the current permissible exposure limit (PEL) was set at 500 ppm as an 8 hour time weighted average and the short time limit was 1000 ppm as an acceptable ceiling, or at 2000 ppm as an acceptable ceiling for 5 minutes in any 2 hour period. This had been originally set back in 1946 and was adopted by OSHA in 1971 as a national consensus standard under §655(a). Since then, scientific knowledge and the general understanding about the adverse effects of MC have advanced dramatically and by 1985 EPA, CPSC and FDA had all commenced

²² 1564.

²³ 1564.

²⁴ OSHA (1997) at 1.

²⁵ 1496-1500.

rulemaking in relation to it.²⁶ Thus OSHA's actions must be seen in this broader context. In 1988 the American Conference of Governmental Industrial Hygienists (ACGIH) recommending lowering the PEL to 50 ppm. The ACGIH, a group of government and university scientists, has been a long respected source of standards although in other courts, standards based on their findings have not always been accepted.²⁷

OSHA received 43 comments in relation to their advance notice. In light of these comments in 1988 OSHA quickly identified that a major problem in regulation was the widespread use of MC by small businesses. OSHA began visits to small businesses to develop an understanding of how a revision of a standard would affect them. This also included the active participation in a number of conferences run by other bodies. By 1991, other agencies had already passed quite restrictive rules in relation to MC.²⁸ In November 1991 OSHA published a notice of proposed rulemaking under §655(b)(2). The proposed standard now set the PEL at 25 ppm and the short term time limit at 125 ppm averaged over 15 minutes.²⁹ The written comment period lasted until April 1992 and produced 58 comments and several hearing requests. On May 1992, OSHA referred the issue of MC to Advisory Committee on Construction Safety and Health (ACCSH) who then established a work group so as to generate information and recommendations in relation to the use of MC in the construction industry.

²⁶ 1497.

²⁷ *AFL-CIO v. OSHA* 965 F.2d 962 (11th Cir. 1992)(The *Air Contaminants* case).

²⁸ 1499.

²⁹ 1564.

In 1992 OSHA held a number of hearings in both Washington DC and San Francisco concerning MC. The West Coast meeting was to assist small business owners who could not attend the Washington D.C. meeting. During that time they also reopened the written comment period. The ACCSH group then reported and OSHA held two supplemental hearings on MC use in the construction industry. A post hearing comment period of about 6 months elicited about 35 comments. Again in March 1994, OSHA reopened the rulemaking record for 45 days to receive comments in relation to the problems that small manufacturers in the furniture industry would have in meeting the standard. This resulted in 29 comments. In October 1995, OSHA reopened the rulemaking record for a final time to receive comments in relation to information put forward by the Halogenated Solvents Industry (HSIA). This information was a number of studies concerning the quality of the animal data which OSHA had chosen to rely on.

In all, OSHA developed a 48,000 page administrative record including 2,717 pages of hearing transcripts.³⁰ Employees, employers, union representatives, trade associations, and government agencies have all contributed to the rulemaking. OSHA has also *actively* sought dialogue with small business entities particularly those in the furniture and foam blowing industries. The recitation of this history of the rulemaking is not to ensure that OSHA adhered to some rigid procedure. The requirements under the OSHA Act are indeed very flexible. Rather, this history illustrates, how OSHA set about solving the problem of regulating MC. Rulemaking has not been tidy and does not present a linear process. OSHA have reopened the record a number of times and consulted with different groups. They

have taken seriously new information such as that submitted by HSIA. The final standard reflects many of the issues raised during rulemaking and in particular those concerned with small business compliance.

The final standard was published in January 1997. Compliance with the standard requires the monitoring of worker exposure, the identification of areas in which exposure is likely to exceed the PEL; the implementation of engineering and work practice controls to reduce employee exposure; the provision of respirator equipment if engineering equipment is not sufficient; the provision of protective clothing in an emergency; the provision of appropriate hygiene facilities; the setting up of medical examination procedures; the education of workers about MC; and finally the keeping of records. Beyond the use of certain types of respirators the final standard does not require the use of any particular technology. It is for industry to develop technology so as to maintain the PEL. This form of regulation is typical of OSHA rulemaking. Moreover, the requirements have different phasing in periods depending on the size of a business. Businesses under 20 employees have a three year phasing in period.³¹

OSHA on their calculations, estimate that the standard will prevent 31 excess cancer deaths per year.³² As well the standard is estimated to prevent 3 deaths a year from the acute effects of MC on the central nervous system.³³ The standards will also prevent problems such as dizziness and diminished alertness

³⁰ 1499.

³¹ 1571.

³² 1566.

³³ 1566.

which can also result in worker accidents as well as problems of eye, skin and mucus membrane irritants. OSHA estimates that as many as 30,000 to 54,000 workers will be protected from these different problems.³⁴

3. Scope of Review

The standard of review under the OSH Act is ‘that determinations of the Secretary shall be conclusive if supported by substantial evidence in the record considered as a whole’.³⁵ In the early years of OSHA the combining of this test with informal rulemaking proceedings was described as an ‘illogic of legislative compromise’.³⁶ Since then the case law has developed such that the inclusion of the substantial evidence test has meant the courts will take a ‘harder look’ at a decision and in particular the evidentiary aspects of a decision than they do under the arbitrary and capricious test.³⁷

The most commonly cited definition of substantial evidence is that of Chief Justice Hughes in *Consolidated Edison Co v. NLRB*:

³⁴ 1566.

³⁵ 29 USCA §655(f).

³⁶ *Hodgson* at 46; *Society of Plastics* at 1304; and *Synthetic I* at 1157. For other discussions of the problems see *Associated Industries* at 347-50; *Florida Peach Growers Association v. US Dept. of Labour* 489 F.2d 120, 127-9 (5th Cir. 1974) (The *Florida Peach* case); *Asbestos Information Association of North America v. OSHA* 727 F.2d 415, 421 (5th Cir. 1984) (The *Asbestos Information* case); and *American Petroleum Institute v. OSHA* 581 F.2d 493, 497 (5th Cir. 1978).

³⁷ *Corrosion Proof Fittings v. EPA* 947 F.2d 1201, 1213-4 (5th Cir. 1991) (The *Corrosion Proof* case); *Alabama Power* at 744; *Asbestos Information* at 421; and *National Grain and Feed Association v. OSHA* 866 F.2d 717, 728 (5th Cir. 1989) (The *National Grain* case).

Substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.³⁸

Such a comment is highly ambiguous and can be interpreted to mean many things. It must be understood in context. In that case, the Chief Justice stressed that administrative boards should be free from ‘the compulsion of technical rules’ of evidence.³⁹ Moreover, during that period the substantial evidence test was a flexible standard of review.⁴⁰ The concern of the courts was to ensure that they had been a ‘responsibly conscious’ exercise of discretion⁴¹ not that a certain level of proof had been adhered to.

Such an interpretation of that test is also consistent with the informal rulemaking procedures under the OSH Act. Moreover, it is confirmed by other cases⁴², by OSHA’s behaviour in this case and by past practices such as their generic cancer policy.⁴³ OSHA is not merely a ‘bookkeeper posting items in a ledger’⁴⁴ and our task is not a mechanical one.⁴⁵ Rather we must ensure that OSHA has conscientiously brought their expertise to bear on the problem.⁴⁶

³⁸ 305 US 197, 230 (1938). See for example *Public Health Research Group v. Tyson* 796 F.2d 1479, 1485 (DC Cir. 1986) (The *Tyson* case); *Air Contaminants* at 970; and *National Grain* at 728.

³⁹ 230.

⁴⁰ *ICC v. Baird*, 194 US 25, 44 (1904); *Tagg Bros. & Moorhead v. United States* 280 US 420, 442 (1930) and Attorney General’s Committee (1941) at 61.

⁴¹ *US v. Morgan* 313 US 409, 415 (1941).

⁴² *Hodgson* at 474; *American Iron & Steel Institute v. OSHA* 577 F.2d 825, 831 (3rd Cir. 1978) (The *American Iron and Steel* case); and *Synthetic I* at 1159.

⁴³ 45 Fed. Reg. 5002 (January 22, 1980).

⁴⁴ *Morgan v. US* 304 US 1, 18 (1938).

⁴⁵ *Universal Camera Corp. v. NLRB* 340 US 474, 489 (1951).

⁴⁶ *US v Morgan* 313 US 409, 420 (1941).

Thus, the substantial evidence test is not as the D.C. Circuit have recently suggested one of ensuring an evidentiary link between the statute and real life problems.⁴⁷ Such an interpretation is grounded in the non delegation doctrine and the Supreme Court decision in *Industrial Union Department, AFL-CIO v. American Petroleum Institute*⁴⁸ (The *Benzene* case). This very narrow concept of substantial evidence is not commensurable with either the task of OSHA or the task of this court.⁴⁹ As noted above, the OSH Act, requires OSHA to engage in both deliberation and analysis. A standard of review that requires the court to only concentrate on analysis at the expense of deliberation cannot be ensuring reasonable administration action.

In carrying out our task, we need, as a court to show restraint in imposing procedural or substantive requirements on an agency, particularly as here the decision is a complex one made under scientific uncertainty.⁵⁰ Our focal point, is of course the administrative record. It is important that OSHA articulate their decision properly and it is not for this court to find a rational basis for the decision which was not that which OSHA said it was.⁵¹ This promotes not only clarity but also ensures that while OSHA's rulemaking is complex that it does not deviate from the

⁴⁷ *International Union, UAW v. OSHA* 37 F.3d 665, 669 (D.C. Cir. 1994).

⁴⁸ 448 US 607 (1980).

⁴⁹ *Benzene* at 723 per Justice Marshall dissenting.

⁵⁰ *Vermont Yankee Nuclear Power Corp. v. NRDC* 435 US 519, 543 (1978) (The *Vermont Yankee* case); *Baltimore Gas & Electric v. NRDC* 462 US 87, 103 (1983) (The *Baltimore Gas* case); and *Hodgson* at 476.

⁵¹ *SEC v. Chenery* 332 US 194, 196 (1947) and *Citizens to Preserve Overton Park Inc. v. Volpe* 401 US 402, 419 (1971) (The *Overton Park* case).

task set by Congress.⁵² Moreover, such clarity enhances the problem solving process.

4. Consideration of Issues

Like nearly all of OSHA's standards both labour unions and industry seek judicial review. The United Auto Worker's Union (UAW) and HSIA⁵³ both having a series of arguments that they put forward. We deal with their arguments together.

4.1 Significant Risk

HSIA argue there is no substantial evidence underpinning OSHA's conclusion that a 25 ppm PEL is required. They argue that although there has been a finding that exposure to MC causes cancer in mice this cannot be extrapolated to humans because mice have unique 'pathways of MC metabolism and mechanisms of carcinogenesis'⁵⁴ which would not be found in humans. In 1995, they submitted evidence of seven different studies supporting their claim.⁵⁵ HSIA base their argument on the plurality opinion in the *Benzene* decision which argued that an Agency may use 'conservative assumptions' so long as they are supported by a body of 'reputable scientific thought'.⁵⁶ They argue that has not occurred here.

This court highly doubts whether a strict reading of this paragraph of *Benzene* is a correct one, in light of the general acceptance that OSHA's task is on

⁵² *Marshall* at 651-2.

⁵³ They are also seeking to have the legislation overturned by Congress under new congressional review provisions.

⁵⁴ 1518.

⁵⁵ 1518.

the ‘frontiers of scientific knowledge’.⁵⁷ This is not to say that a *crucial* assumption or factual finding should be ignored by the courts. The form of scrutiny however, is not so much to ensure the decision is necessarily ‘accurate’ but to ensure that the analytical process was an open and candid one and that OSHA conscientiously exercised their judgement. Assumptions and judgements are part and parcel of the practice of science and in particular the practice of regulatory science.⁵⁸ Conventional concepts of accuracy while relevant can not be a primary determinant of good decision making. Part of ensuring that there has been a conscientious exercise of discretion is to ensure that OSHA has thought about the problem carefully. An assumption based on a bland policy or the unthinking application of an analytical tool on the part of OSHA will not suffice.⁵⁹

Here there is no doubt, looking at the context, that OSHA based their assumption on substantial evidence. First, OSHA not only responded to HSIA⁶⁰ but also reopened the rulemaking record for two months in late 1995 and received 39 comments. The debate at that time was wide ranging and involved not only questions concerning biological mechanisms but also comments by HSIA arguing that OSHA and other scientists wanted to maintain the ‘status quo’.⁶¹ Such a comment is cryptic but also illustrates how the nature of deliberation was not only about technical detail but also about reconciling debates between groups of scientists.

⁵⁶ 656 per Justice Stevens.

⁵⁷ *Baltimore Gas* at 103.

⁵⁸ NRC (1994).

⁵⁹ *FCC v. RCA Communications* 346 US 86, 90 (1952)(The *RCA Communications* case).

⁶⁰ 1518-1529.

Second, OSHA did not base their assumption that MC is metabolised in a very similar manner in both mice and humans on a single piece of evidence. There are a number of positive epidemiological studies which suggest that MC is a human carcinogen and there are no significant negative epidemiological studies. While these studies, on their own are not conclusive they solidify the finding that MC is a human carcinogen. Moreover, OSHA has made explicit their assumptions and discussed in some detail their uncertainty analysis (using both Monte Carlo simulation and Bayesian analysis).⁶²

Third, OSHA is not the only institution who presumes that MC is a probable human carcinogen and the EPA, NIOSH and others have classified it as such.⁶³ Again however, OSHA has not simply relied on their evidence but has dealt with the complex and inadequate data in a responsible way. In light of OSHA's action their findings were underpinned by substantial evidence.

4.2 Reduction of Risk: Substitution Risks

The next argument of the HSIA is that the standard will not actually reduce the risk because it will force smaller manufacturers to use solvents which are more flammable and thus more dangerous. They note that in *Corrosion Proof Fittings v. EPA*⁶⁴ (The *Corrosion Proof* case) the 5th Circuit held that:

The EPA's explicit failure to consider the toxicity of likely substitutes thus deprives its order of a reasonable basis.

⁶¹ 1528.

⁶² 1517.

⁶³ 1517.

⁶⁴ 947 F.2d 1201, 1221 (5th Cir. 1991). They also rely on *Competitive Enterprise Institute v. NHTSA* 956 F.2d 321 (D.C. Cir. 1992).

It is true that OSHA has not considered in any detail the use of substitute solvents.⁶⁵ They acknowledge that it may be a problem in some cases but have based their analysis on the belief that such substitution does not occur.

The failure to consider substitutes in any detailed way is *prima facie* troubling and while this court does not agree with the analytical stringencies of cases such as *Corrosion Proof* there is no doubt that OSHA should consider any obvious risks that might result from their standard. There is however a major distinction between the cases HSIA cite and the one before us. In *Corrosion Proof* the use of a substitution was an inevitability because the EPA had proposed a virtual ban on asbestos. Here it is not and OSHA has established not only that the standard is feasible but that in many cases it is already being achieved.⁶⁶ Here OSHA has not evaded their statutory duty by not considering substitutes and as shown below the standard is both economically and technologically feasible.

This court cannot help thinking that such substitution risk arguments can only result in an analytical barrier to regulation. Any regulatory action in the field of industrial safety will always have a complex series of knock-on effects. OSHA should not suffer from a problem of tunnel vision but its mandate is ultimately that given to it by Congress. It cannot fulfil this if it is ultimately frustrated by demands for analysis which in the end have little relevance.

⁶⁵ 1576.

⁶⁶ 1565.

4.3 Reduction of Risk: Medical Surveillance

UAW argue that the medical surveillance provisions will not reduce a risk because they allow ‘licensed health care professionals’ and not just physicians to carry out medical surveillance. They state that OSHA does not have substantial evidence on which to base their assumption that this will reduce the risk. They point to other OSHA standards which require medical physicians to undertake examinations.

The reason why OSHA has included these requirements is that they result in a 14% reduction of cost for industry. The looser requirement of ‘licensed health care professional’ is also based on the fact that the licensing requirements differ from state to state and the standard should be adjusted on this basis.⁶⁷ OSHA recognise that the problem of who should carry out medical examinations is not an easy one and stress that in future rulemakings the issue should be the subject of some consideration.⁶⁸ There is no doubt that in provisions such as these that OSHA is engaging in trial and error. Such experimentation is clearly part of the administrative process and so long as it is directed at the problem at hand it should be seen as reasonable.⁶⁹ Here, the broad definition of ‘licensed health care professional’ is clearly appropriate in circumstances where the major economic impact is on small industries. It may not be reasonable in a case where the major employers were large multinationals who clearly had the resources to employ certain types of medical experts. Nor would it be reasonable in cases where a

⁶⁷ 1590.

⁶⁸ 1590.

⁶⁹ *RCA Communications* at 90.

certain type of medical physician was required to carry out the examinations. This is not the case here however. The examinations themselves are relatively straightforward.

What is clear is that OSHA wished to keep an open mind on the question. It is indeed true that they had very little empirical evidence in regard to the success of such a scheme but they are not required to. Their considerations and deliberations on the issue would clearly satisfy a ‘reasonable mind’.

4.4 Economic Feasibility: Zones of Reasonableness

The final series of arguments are in relation to the question of economic feasibility. UAW argue that the PEL should be lowered because there is no substantial evidence that the standard is not economically feasible at a lower level. They argue that the standard is not protective enough because even at 25 ppm a ‘significant risk’ as defined by the Supreme Court in the *Benzene* decision.⁷⁰ This is because on the basis of OSHA’s risk assessment there is still an excess cancer risk of 3.62 per 1000 and the plurality in that opinion suggested that a ‘significant risk’ was 1 in 1000.⁷¹ UAW argue that there is no basis for a finding that a lower PEL would not be feasible and argue that OSHA has merely complied with industry demands without any evidence that there was a problem. UAW is quite right in pointing out that the task of OSHA is not to protect particular interests.⁷²

⁷⁰ 448 US 607 (1980).

⁷¹ 655.

⁷² *Radio Corp. of America v. US* 341 US 412, 423 (1951).

OSHA must fulfil their task with the public interest in mind. That however, also means that they should not follow a policy of worker protection blindly.⁷³

It is important to remember that a numerical limit will always in many ways be an arbitrary one. Moreover, the Supreme Court never intended the 1 in 1000 level to be a ‘mathematical straitjacket’ although it has become the cut off point for OSHA regulation.⁷⁴ As already noted above, in carrying out the risk assessment, numerous value assumptions need to be made. These value assumptions, on a very strict understanding of science may make decision making look ‘arbitrary’. Arbitrariness however does not mean that we as a court should strike it down. As the court noted in *Fisherman’s Dock Co-Op Inc v. Brown*:⁷⁵

In the event those decision makers seem to have allowed themselves to gravitate to a specific number – within the general range suggested by their reasoning – largely because that number happened to have been on the table as a standard deviation. If allowing themselves to gravitate in that way constituted arbitrariness in the selection of the final number within the acceptable range of assurance, then the Monitoring Committee indulged only in the kind of arbitrariness that is inherent in the exercise of discretion amid uncertainty and not the kind of arbitrariness that the statute condemns when it exists in tandem with capriciousness.

It is not the role of this court to engage in a careful scrutiny of OSHA’s quantitative risk assessment or their economic analysis to ensure it is an accurate pinpointing of the truth. Not only are we as a generalist court ill suited to such a task⁷⁶ but to do so

⁷³ *RCA Communications* at 90.

⁷⁴ 655. See *International Union, UAW v. Pendergrass* 878 F.2d 389, 392 (D.C. Cir. 1989). In *ASARCO v. OSHA* 647 F.2d 1 (9th Cir. 1981) and NRC (1994) at 36.

⁷⁵ 75 F.3d 164, 173 (4th Cir. 1996).

⁷⁶ *Appalachian Power Co. v. EPA* 135 F.3d 791, 802 (D.C. Cir. 1998) (The *Appalachian Power* case).

would be to force OSHA to do something which is neither possible nor entirely relevant to their role.⁷⁷

The primary task of OSHA is to protect workers not to carry out analysis. This is not to say that analysis is not required but that it is a tool to aid OSHA in achieving their legislative mandate. Our task as a court is to ensure that OSHA in setting rules to protect workers does so within a ‘zone of reasonableness’.⁷⁸ This term originated in the field of rate making but it has also been applied to OSHA rulemaking.⁷⁹ In *United Steelworkers of America v. Marshall*⁸⁰ (The *United Steelworkers* case) case it was described as:

[W]here the standard requires OSHA to set a numerical limit for some phenomenon we must remember that the precise choice of number is essentially a legislative choice to which we must accord great deference and which only must fall within a ‘zone of reasonableness’.⁸¹

Likewise in *AFL-CIO v. OSHA*⁸² (The *Air Contaminants* case) the 11th Circuit argued that some form of estimation was required in establishing such a zone.

With respect, these cases in applying the test have presumed that OSHA’s task is something different from what it is. Originally, it was introduced because there was an appreciation that there were no universal formulas in relation to rate making and that in many cases ‘pragmatic readjustment’ was required.⁸³ This is

⁷⁷ *Hodgson* at 474.

⁷⁸ *Hope Natural Gas* at 602; *FPC v Natural Gas Pipeline Co.* 315 US 575, 585-6 (1942); *In Re Permian Basin Area Rate Cases* 390 US 747, 797 (1968).

⁷⁹ For examples see: e.g. *National Grain* at 738; *Forging Industry Association v. Secretary of Labour* 773 F.2d 1436, 1443 (4th Cir. 1985) and *Air Contaminants* at 973-5.

⁸⁰ 647 F.2d 1189 (D.C. Cir. 1980).

⁸¹ 1253.

⁸² 965 F.2d 962, 973-5 (11th Cir. 1992).

⁸³ *Hope Natural Gas* at 602.

well illustrated in the circumstances here. Many different parties have argued that the standard should be set at a certain level, each of whom has evidence to support their argument.⁸⁴

The PEL was not decided upon in a vacuum or on no evidence. The evidence can be found in the Final Economic Analysis. OSHA has considered the problem from a number of perspectives and have also highlighted problems in determining feasibility. OSHA freely admit that they have more than likely overestimated the costs of the standard.⁸⁵ More importantly, the MC standard has been constructed so as to encourage most employers to reduce their standard to 12.5 ppm. This is not only because the incentives included in the standard but the way the standard will also interact with EPA rules. Moreover, in many cases employers are achieving this standard already. While the standard could be indeed lower, it also clearly falls into a ‘zone of reasonableness’ as it basically aims to protect workers.

4.5 Economic Feasibility: Specific Industries

In contrast, HSIA argue that the standard is not economically feasible for certain industries. They point to a number of cases in which it was found that OSHA did not have substantial evidence underpinning their findings of economic feasibility for certain industries.⁸⁶ HSIA argue that the standards are not

⁸⁴ 1574-6.

⁸⁵ 1568.

⁸⁶ *American Iron and Steel Institute v. OSHA* 939 F.2d 975, 980 (D.C. Cir. 1991); *Colour Pigments Manufacturers Association v. OSHA* 16 F.3d 1157 (11th Cir. 1994) and *American Dental*.

economically feasible for parts of the antique furniture stripping industry or for polyurethane foam manufacturing companies who have over 20 employees and thus will not be subject to the more flexible provisions which apply to businesses of 20 employees and under.

In recent years the evidentiary requirements for establishing economic feasibility have grown significantly and in tandem with an increased concern for the economic impact of regulation. There is no doubt that OSHA must consider issues of economic feasibility but this should not amount to a formal cost/benefit analysis.⁸⁷ The OSH Act was never meant to preserve the status quo.⁸⁸ So long as there was no ‘massive economic dislocation’ the standard would be feasible.⁸⁹

HSIA criticise the fact that much of the analysis was carried out in regard to application groups rather than specific industries.⁹⁰ They rely on *American Iron & Steel Institute v. OSHA*⁹¹ (The *United Steelworkers II* case) in which the court struck down part of a rule because it had not properly differentiated between industries. They argue that by doing this, that OSHA ignored the impacts on certain specific industries which were a subset of such application groups. As we understand it HSIA are arguing that the analysis should have been more precise. On the basis of the evidence before us, such precision is not necessary for the decision to be underpinned by substantial evidence. There is nothing in the

⁸⁷ *Cotton Dust* at 509.

⁸⁸ *American Iron and Steel* at 833-5; and *Society of Plastics* at 1309.

⁸⁹ *Hodgson* at 478; *United Steelworkers* at 501 and *American Iron and Steel* case at 836.

⁹⁰ 1564-5.

⁹¹ 939 F.2d 975 (D.C. Cir. 1991).

evidence, or in anything which HSIA or anyone else has said to suggest that closer analysis would reveal ‘massive economic dislocation’.

Moreover and perhaps more importantly, OSHA has directed many of their resources and deliberation to thinking about the problem of economic feasibility. They have opened up their analysis to scrutiny and have also considered and discussed other alternatives.⁹² OSHA very much recognise the problem of MC in small business partly through their compliance with the Regulatory Flexibility Act and partly because throughout their rulemaking they have constantly addressed the issue.⁹³ They have adjusted the final standard in a number of ways in light of this problem.⁹⁴ This includes a phasing in period of 3 years for businesses for less than 20 employees and the medical surveillance provisions challenged by UAW above. While it is true that much of the polyurethane foam manufacturing industry is not subject to these provisions this group do have an extra phasing in period.⁹⁵

5. Conclusion

The series of arguments raised here illustrate the problematic nature of setting a PEL.⁹⁶ A problem compounded because the uncertainties over both the health effects of MC and the economic effects of regulation. There are no doubt flaws and gaps in analysis and it is always open to the argument that it could have been done better.

⁹² 1574-77.

⁹³ 1569.

⁹⁴ 1571.

⁹⁵ 1569.

⁹⁶ 1517.

That however is not of primary importance. What is, is that OSHA has made a conscientious effort to deal with the complexities involved in setting a standard which will primarily impact upon small business. Moreover, this standard has clearly been written with past case law in mind and goes into a level of methodological detail which is not necessarily relevant. What we as a court wish to ensure is that OSHA has consciously engaged in problem solving in the public interest not that they have presented a definitive scientific analysis of MC. That willingness is established here by their responsive approach which was well matched to the problem at hand. We uphold the standard.

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