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Background Report for the Indemnification Report to Congress

BACKGROUND REPORT

FOR THE

INDEMNIFICATION REPORT TO CONGRESS

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DISCLAIMER

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EXECUTIVE SUMMARY

A. INTRODUCTION

This study seeks to fulfill the mandate of § 25(a) of the Toxic Substances Control Act (TSCA) to determine "whether and under what conditions, if any, indemnification should be accorded any person as a result of any action taken by the Administrator" of EPA. The study began with a detailed investigation of existing indemnification programs (both within and outside EPA) and moved on to a consideration of the potential need for other indemnification programs under any current or projected activity at EPA. Both phases involved extensive discussions with EPA staff and informal consultation with knowledgeable people in the industries regulated by EPA. We could not conclude that there is a total lack of situations justifying indemnification, nor could we conclude that there are conditions which always justify payment. In the context of the strong bias against compensation of regulated parties for the cost of government regulations, there was insufficient evidence of a need for new indemnification programs at this time.

B. ORIGIN AND MEANING OF THE STUDY MANDATE

The § 25(a) study mandate has roots in the 1972 amendments to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Those amendments require EPA to indemnify pesticide owners suffering losses when EPA suspends and then cancels a pesticide registration without giving the owners an opportunity to sell or use their pesticide stocks. The Senate had originally opposed this FIFRA provision, and later attempted to repeal it and to prevent its inclusion in TSCA. Instead of either repealing the FIFRA provision or extending it to TSCA, Congress enacted the mandate for an EPA study of indemnification.

The term "indemnification" refers to a particular kind of compensation or reimbursement. One of the most well known examples is an insurance contract, in which the insurer agrees to indemnify the insured against loss arising from a specific event. An equitable right of indemnity may arise where a person has discharged a duty owed by him, which should have been discharged by another.

Indemnification, as contemplated by the study mandate, has a very limited meaning, distinct from many other kinds of payment and compensation that the government makes to private parties. For example, awards made by a court of law, payments under contracts for services or materials provided to the government, entitlement payments and subsidies are all different from indemnification under this study.

Indemnification cannot be justified for all losses due to regulatory action by the government. But some losses do merit compensation under our laws, (e.g., the taking of land to build a military base). At the other end of the spectrum, most of the routine regulation by

the government imposes costs that are accepted as normal costs of doing business and are not considered to be compensable. Clearly, the government cannot protect the public health and welfare without causing some burdens; and it could never afford to pay for all of them. The mandate of the study is to explore the gray areas beyond those losses already covered by compensation to determine whether there are additional circumstances which might merit indemnification.

C. BACKGROUND ON GOVERNMENT INDEMNIFICATION

American law has generally not allowed compensation for losses resulting from regulation. Even those laws abrogating immunity have narrowly defined the areas in which the government can be sued. Compensation under the Fifth Amendment has been limited to circumstances when full title to property is actually taken, all the normal benefits of owning the property are destroyed, or an important property right is transferred to another private person. Exceptions to the Federal Tort Claims Act's waiver of sovereign immunity have prevented tort suits for the results of most policy decisions, by excluding activities involving discretionary functions, misrepresentations, and many intentional torts.

Congress has only infrequently provided indemnification, and a decision to grant indemnification generally has not been regarded as a precedent for its use in other circumstances.

Instances of congressionally-granted indemnification can be categorized according to three indemnification goals:

- compensating some inequity;
- deterring an agency from undesirable action; and
- encouraging or permitting desired private activity or otherwise facilitating a public goal.

Most equitable indemnification situations have been congressionally handled on a case-by-case basis through use of the private-bill mechanism. However, when there are a sufficient number of indemnifiable incidents of a predictable and regular type, Congress may establish some type of indemnification process, rather than deal with each situation individually. On the other hand, most prospective indemnification programs established by public laws have been intended as disincentives to government action or as incentives to private-party action. Some of the instances for which indemnification has been granted include:

- Indemnification for the consequences of product bans (pesticides under § 15 of FIFRA);

- Agricultural indemnities to farmers (beekeepers, contaminated milk, diseased livestock, and the contaminated cranberry incident of 1959);

- Reimbursement for oil and hazardous substance spill removal costs (§ 311(i) of the Clean Water Act; the Outer Continental Shelf Lands Act of 1978; and the Comprehensive Environmental Response, Compensation and Liability Act of 1980);

- Indemnification to encourage use of innovative pollution control equipment (§ 202(a)(3) of the Clean Water Act authorizing EPA funding of replacement or modification of failed innovative wastewater treatment facilities);

- Arts and Artifacts Indemnity Act (losses incurred by museums exhibiting internationally loaned art);

- Government contractors' indemnification (defense contractors are promised indemnity for unusually hazardous activities, NASA reauthorization of 1981 covering indemnities for certain catastrophic losses);

- Swine flu vaccine program (acceptance of liability exposure rather than reimbursement of losses);

- Indemnification for government misrepresentation (private bills covering the Mitzokami spinach and Marlin toys cases); and

- Attorneys' fees and court costs for certain unreasonable agency actions (§ 113(b) of the Clean Air Act Amendments of 1977 and the Equal Access to Justice Act of 1980).

Congress is currently considering an indemnification mechanism for certain firms who suffered losses when the chemical flame-retardant Tris was prohibited in children's sleepwear. Also, the Trial Commissioner of the Court of Claims should soon file an opinion in the case of California growers and canners seeking indemnification for losses suffered when cyclamates were banned in 1969.

D. CRITERIA FOR EVALUATING THE NEED FOR INDEMNIFICATION WITHIN EPA PROGRAMS

No detailed formula was developed which could automatically determine whether indemnification might be necessary in any particular set of circumstances. Instead, a review of previous incidents and existing indemnification programs revealed relevant factors for analyzing EPA indemnification programs and assessing whether their use should be expanded or whether entirely new indemnification programs are needed or any specific situations require indemnities. These factors include:

- The nature of the reasons supporting indemnification (compensation on equitable grounds; disincentive to government action; to encourage or facilitate private sector or regulated party activity);

- Whether an anticipatory indemnification program (as opposed to ad hoc decisions) is necessary;

- Availability of preferable alternatives to indemnification;

- Whether Congress has considered the issue of compensation or other remedies in the situation at hand and expressed a position which is determinative of the question;

- The extent to which indemnification supports or conflicts with other program objectives;

- Cost predictability and the amount of indemnity payout and administration cost compared with the benefit derived;

- Whether the particular indemnification can be effectively financed and administered in a manner which does not unacceptably interfere with the administration of other programs.

E. EXISTING EPA INDEMNIFICATION PROGRAMS

The study is grounded in an examination of the indemnification programs already in existence at EPA, and consideration of whether they should be expanded to other situations. This has provided a more concrete basis for evaluation than a theoretical construction would.

1. FIFRA § 15 --- Pesticide Indemnities

The § 15 provision appears to have been the result of legislative compromise and a unique, multifaceted combination of factors. It does not appear to be typical of other indemnification programs in the government. Therefore, it is difficult to generalize from the experience under § 15.

The essential elements of § 15 are: that the government suspend and then cancel the registration of a pesticide without allowing owners to sell or use their inventories. There have been very few emergency suspensions since 1972, and only three have met the criteria for indemnification. Only one of those was a commercial pesticide.

EPA has never developed regulations or guidance documents to implement § 15. Instead, claims-processing procedures were developed in 1979 during the Silvex case, through an agreement negotiated primarily between EPA and Chevron Chemical Company. Under the agreements signed by 18 registrants, indemnity claims were funneled through each

fic funding reserve to assure the availability of money when it is needed. In addition, payment of indemnification is entirely discretionary.

In the context of demonstration projects, a substitute for government indemnification exists in the form of private insurance which could be purchased out of demonstration-project funds in order to protect against the risk of failure or of damage to the source's equipment. In addition, contingent indemnification clauses have been provided to EPA clean-up contractors under Superfund. Nevertheless, if the use of innovative technology is to be strongly encouraged, and if Congress is willing to write an indemnification guarantee, then such a provision might provide a substantial savings compared to the use of commercial insurance.

3. Clean Air Act § 113(b) --- Unreasonable Judicial Enforcement

Section 113(b) of the Clean Air Act provides that a federal court may award costs of litigation (including reasonable attorney and expert witness fees) to a party against whom erroneous or harassing enforcement action is brought by EPA. The legislative history of this provision indicates that it was intended to encourage persons who would not otherwise do so for economic reasons to raise a legitimate defense to such actions, and to serve as a deterrent against unreasonable enforcement litigation.

Congressional concern over the potential for harassing or otherwise "unreasonable" litigation under the Clean Air Act does not appear to have been borne out in fact. Only one case has ever resulted in a § 113(b) award, and there are no indications that EPA's judicial enforcement efforts are perceived to be arbitrary or harassing. EPA enforcement policies and concurrence procedures also seriously restrict the potential for such action in the future. For these same reasons, indemnities for judicial actions in other EPA enforcement programs are also not necessary.

4. Clean Water Act § 311(i) --- Encouraging Spills Cleanup

Section 311(i) of the Clean Water Act encourages nonliable dischargers to assist in oil spill cleanup efforts by promising to indemnify such dischargers for reasonable cleanup costs. Thus, a cleanup incentive is provided to the party most knowledgeable of the content and amount of a spill, and the party most likely to be first aware that it has occurred.

Hazardous substance spills are also covered under § 311(i), but cleanup is largely managed under the terms of the recently enacted Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This new statute provides up to $1.6 billion over a five-year period to respond to harmful releases of pollutants in all of the

registrant. While the administrative processing of claims was still very difficult for EPA, this arrangement made processing feasible despite the large number of Silvex indemnity claims received from retailers and distributors. After final review of each claims package, EPA informed the registrant of the claims amount which the Agency considered "appropriate." However, the Agency also stated that it had no money with which to pay the claims. Subsequently, some of the registrants successfully obtained indemnity payments from the Court of Claims Judgment Fund. The Department of Justice recently settled seven Silvex cases for a total of $18.7 million.

A variety of arguments fueled the congressional debate over § 15. In the ten years since the provision's enactment, some of these arguments have proved to be insubstantial, while others have taken on new weight. Although existing evidence does not warrant repeal of the § 15 indemnity program, there are significant operational problems, especially the program's lack of a specific funding mechanism. There are also administrative problems that result from the infrequent need to handle a very large volume of claims.

Extension of an indemnity program to the toxics area for loss of inventory like that in FIFRA § 15 does not appear to be necessary. In the toxics area there is no evidence of the kind of losses envisioned by the drafters of § 15, due to the differences between the statutes and their subject matter. TSCA contains many methods for preventing, limiting and sharing the costs of regulation. Experience in implementing TSCA is of course limited, but so far there are no patterns of inequities that would justify establishment of an indemnification program. Decisions on whether isolated inequities justify an indemnification payment should be made based on the facts of the case, and cannot be forecast.

2. Clean Water Act § 202(a)(3) --- Encouraging Innovative Technology

The indemnification provision of § 202(a)(3) of the Clean Water Act was designed, in part, as an incentive to encourage the use of innovative and alternative wastewater treatment technology by local governments. The statute gives EPA discretion to fund 100% of the costs of modifying or replacing a facility that fails to meet performance specifications and has significantly increased operating or maintenance expenses. Although the provision has only very limited application to provide replacement or modification funds for any failed treatment facilities, its very existence has encouraged grantees to use innovative or alternative technology. Funding of replacement or modification costs has not yet occurred, because eligible facilities have only recently become operational.

The practical effectiveness of this provision as an incentive for the use of innovative technology is diminished by the lack of a speci-

pollution media. While CERCLA has no provision identical to § 311(i), a similar incentive is possible under § 111(a), which provides for the payment of certain claims, including necessary response costs incurred by any person as a result of carrying out the national contingency plan. However, these expenses must be approved in advance by EPA, according to current EPA policy. This is to ensure cost control, and effective management of cleanup operations.

The experience under § 311(i) demonstrates that it has been successful in accomplishing congressional purposes, although on only a limited basis. It cannot be determined yet whether CERCLA ultimately will provide an effective alternative to § 311(i); and any consideration of expanding § 311(i) should await further experience in implenting CERCLA.

F. OTHER POSSIBLE INDEMNIFICATION CATEGORIES

1. The Concept of Loss Categories

In addition to considering possible extensions or transplants of existing EPA indemnification programs to other EPA program areas, other possible circumstances under which indemnification might be justified were evaluated. In this regard, categories more likely to contain indemnifiable situations were identified and specific indemnifiable event losses were sought in order to sharpen the analysis and assess the seriousness of the problems. In this process, each environmental statute and its major regulations were reviewed, discussions were held with past and current EPA staff, and industry sources were consulted for identification of potentially indemnifiable situations. Five loss categories were selected for more detailed evaluation to determine the need for indemnification.

2. Disclosure of Confidential Business Information

Industry has been quite concerned with the problem of losses resulting from government disclosure of confidential business information (CBI) required to be submitted to government agencies. Industry has therefore attempted to persuade Congress and the federal judiciary to define CBI better and to narrow the scope of authorized CBI disclosure or use. However, government indemnification has not been sought for losses due either to authorized or to unauthorized government disclosure of CBI.

An EPA indemnification program does not seem warranted to remedy such losses. Both negligent and intentional unauthorized disclosures are already arguably subject to a suit for money damages under the Federal Tort Claims Act. Furthermore, EPA has detailed security procedures in the pesticides and toxics areas designed to safeguard CBI from unauthorized disclosure. There are also substantial criminal penalties for intentional unauthorized disclosure. No claims have

been filed against EPA seeking compensation for these types of losses, and there have been no prosecutions or disciplinary actions for intentional and unauthorized disclosure. With regard to authorized disclosures, congressional consideration is being given to amendments to the CBI portion of the Freedom of Information Act, as well as to amendments to FIFRA which relate to CBI disclosure.

3. Delays in Permit Processing

An indemnification program also does not seem warranted to deal with the alleged problem of losses due to delays in government permit processing. Both industry and EPA representatives concerned with the problem of permit delays have focused on remedial solutions other than indemnification. Furthermore, several studies have indicated that the causes of delays in construction of new power plants and other industrial facilities are not limited to regulatory problems. Instead, many delays result from other problems such as financing, labor and equipment availability, and management difficulties.

4. Conflicting and Overlapping Regulatory Requirements

The problem of conflicting and overlapping regulatory requirements does not appear to be sufficiently significant to warrant an indemnification program. No conflicting regulatory interactions warranting indemnification appeared in a review of EPA programs. At worst, the instances found represent compliance costs made necessary by reason of other regulatory standards. This is not normally regarded as a basis for compensation.

5. Emergencies

Although emergency action seems theoretically to provide increased chances for creating an indemnifiable loss, our search did not reveal any such indemnifiable circumstances. The agency has rarely used its emergency authority to curtail private operations. One situation involved an air pollution episode in Birmingham, Alabama in 1971 in which a temporary restraining order obtained in the middle of the night under § 303 of the Clean Air Act was in effect for 32 hours. The other incident involved the temporary halting of operations of an FMC plant in West Virginia that was leaking carbon tetrachloride into the Kanawa River. Where emergency authority is used, a judge determines that the imminent threat to public health requires the unusual action. A new and comprehensive law (CERCLA) governs response to emergencies generated by release of hazardous substances. It appears to limit the possibilities for unwarranted burdens on private parties. Until more experience indicates a need for assistance beyond Superfund and the contingent indemnity provision for clean-up contractors, no new indemnification in this area program should be recommended.

6. Unreasonable Administrative Enforcement

An expanded indemnity program to compensate persons subject to unreasonable administrative enforcement is probably not warranted. This is primarily because there is no evidence that clearly unreasonable enforcement exists on more than a very infrequent basis, and because EPA's current enforcement policies and concurrence procedures make such occurrences less likely than ever before. In addition, it would seem preferable to accomplish Agency restraint through traditional avenues of judicial review, rather than indirectly by the threat of indemnification. The former route would encourage loss anticipation and avoidance, while the latter route, if designed effectively, could result in excessive restraint and thus interfere with the Agency's enforcement mission.

7. Changes in Agency Policy

No indemnification program appears to be warranted to deal with the problems associated with changes in Agency policy. Such changes are incidental to the activities and responsibilities of almost every federal agency. For the most part, the parties subject to regulatory programs at EPA have long been aware of the potential losses they may incur because of changes in the programs. The regulatory process allows for adequate forewarning of changes and such changes are a normal commercial risk of doing business.

G. CONCLUSIONS

No determinative indemnity formula was devised. Our study of statutory and other legal indemnification precedents and theories and our consideration of the numerous factors that might be applied, demonstrated that indemnity factors vary in applicability and importance depending on individual circumstances, and that these circumstances will almost always be different in some important aspect. Congress must make such exceptional decisions, as it has in the past, based on legislative criteria that are best defined at the time the issue arises and the unique facts of the situation are known.

No new indemnification programs are warranted at this time. This conclusion is based on findings that (a) no justification currently exists for expanding existing EPA indemnification programs into new areas of EPA jurisdiction, (b) an analysis of likely loss areas demonstrates that there is no justification for concluding that there will actually be losses that should be indemnified under any of the criteria used by Congress in the past, and (c) there is little current interest on the part of industry in the availability of such a remedy for actions taken by EPA.

Other important conclusions concerning indemnification based upon equitable grounds include:

- Whether indemnification is warranted for an inequity raises complex issues that are best considered in the context of the specific case and not resolved in advance by legislating a prospective indemnification program.

- Procedural protections may reduce the need for indemnification.

- Indemnification for inequities has not resulted in domino-like extensions of indemnification to to other situations.

- Some alleged inequities are not unique to EPA, and solutions, if warranted, may need to be government-wide in scope.

- The private bill process can continue to provide relief of last resort for inequities arising from EPA action.

Other important conclusions regarding indemnification to provide incentives or disincentives are:

- Indemnification has worked to provide incentives to parties outside the government

- Indemnification for the purpose of restraining certain undesirable agency action is not clearly justified based on experience under existing EPA programs. Moreover, the potential for adverse impact warrants very careful consideration before legislating an indemnification program for this purpose.

I. INTRODUCTION

A. STUDY APPROACH

1. Overview

In 1976, Congress passed § 25(a) of the Toxic Substances Control Act (TSCA) requiring, in part, that the EPA Administrator conduct a study of the need for indemnification under EPA-administered statutes. This study would be "for the purpose of determining whether and under what conditions, if any, indemnification should be accorded any person as a result of any action taken by the Administrator under [all Federal laws administered by EPA]." This report responds to the § 25(a) mandate by clarifying the government indemnification concept and by evaluating its suitability as a remedy for losses that have been or might be sustained under specific EPA programs.

During this study, interviews were conducted with persons representing the agency, industry, Congress, and enviromental groups. Indemnification precedents (both in and outside EPA programs) were studied in detail, and consideration has been given to the potential need for indemnification for current and projected EPA activities.

The study was performed in three separate (but partially overlapping) phases. Phase I involved an analysis of the indemnification concept and a study of principal indemnification precedents. Phase II involved a detailed analysis of existing EPA indemnification programs. Finally, Phase III involved an analysis of all EPA programs to determine whether an indemnification remedy might be warranted where it does not already exist. For the most part, these three phases were conducted independently, and have been treated separately in the report.

2. Phase I

During Phase I, a thorough study of government indemnification was conducted. This study included a review of non-EPA public and private bills in which indemnification was granted, and cases referred (by a special procedure) to the Court of Claims for recommendation. To help define the vague language of the study mandate it also included research into the legislative debates behind § 25(a) of TSCA and § 15 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) (a major indemnification provision under EPA authority which was considered as a possible model for § 25(a) indemnification). Finally, it included a thorough review of previous and current government policies pertaining to the compensation of persons adversely affected by government activity. This entailed an analysis of the Constitution's Fifth Amendment, legislative exceptions to the principle of sovereign immunity (especially the Federal Torts Claims Act), and judicially created compensation precedents. It also entailed a review of all potentially relevant legislative issues currently before Congress, including such general topics as regulatory reform, regulatory relief

and federal budget control, as well as specific topics, such as currently proposed bills to provide relief to asbestos-exposed workers and to provide black lung benefits.

From this review, factors were identified which Congress appears to have applied when determining the appropriateness of indemnification. These are the compelling characteristics that influence a decision to deviate from the normal policy of not compensating for the cost of complying with regulations. In broad categories they include:

- Fairness, equity, due process (e.g., detrimental reliance, government error);
- The availability of alternative loss avoidance or relief mechanisms;
- The potential impact (interference or support) on agency missions;
- Consistency with other congressional policies (e.g., the policy against compensating regulated parties, the policy of subsidizing certain constituencies); and
- Feasibility (e.g., costs, financing, administration).

As a part of this review, instances of congressionally supported indemnification were categorized according to their major goals. These categories include:

- Indemnification to remedy some inequity (e.g., losses due to a government mistake that are not otherwise compensable under federal law).
- Indemnification to deter an agency from undesirable action.
- Indemnification to promote some desirable activity by a party other than the federal government (e.g., destruction of diseased livestock to prevent spread of the disease).

These efforts provided an analytical framework for evaluating EPA programs in Phases II and III. During the latter phases, indemnification factors and goals were continually reevalutated and refined as their use in actual application became more clearly understood.

3. Phase II

During Phase II, all EPA-implemented statutes were reviewed to identify and categorize existing indemnification programs. Four EPA indemnity programs were identified: (1) § 15 of FIFRA (compensation for losses due to emergency suspensions and cancellations of pesti-

cide registrations); (2) § 202(a)(3) of the Clean Water Act (CWA) (government grants to cover the costs of replacing innovative waste treatment facilities that do not work); (3) § 311(i) of CWA (reimbursement of cleanup costs for certain oil and chemical spills); and (4) § 113(b) of Clean Air Act (CAA) (reimbursement of attorneys' fees for unreasonable enforcement).

In each case, the legislative goals and the major issues of legislative debate were researched and examined. Then, interviews and research explored (a) how the program has worked, (b) whether congressional goals were achieved, (c) whether the congressional debate was accurate in its consideration of advantages and disadvantages, (d) whether new advantages and disadvantages have been suggested by actual experience, and (e) whether modification (or a reevaluation of the need for) the program is warranted. This research included discussions with staff from EPA, the Department of Justice, and other governmental agencies involved in implementing indemnification programs; discussions with industry officials affected by the programs; and a review of appropriate regulations, guidelines, memoranda, and indemnification decisions.

4. Phase III

Based on the research conducted in Phases I and II, a review of all EPA programs was conducted to determine whether there have been or might be instances in which indemnification is appropriate. This was approached from three angles. First, research was conducted to determine whether existing indemnification programs should be expanded into other statutory areas. Essential justifications for each of the four existing EPA indemnification provisions were defined and then compared to other EPA programs to determine whether similar circumstances might exist.

The second approach was to look for patterns of loss due to present or threatened EPA action under any EPA statute. The logical places to find mention of losses were in industry complaints about environmental regulation, administrative enforcement cases, rulemaking comments and petitions, and actions for judicial review, and through discussions with EPA, industry and environmental organization representatives. This research resulted in a list of six loss categories meriting close examination:

(1) disclosure of confidential business information,

(2) delays in EPA action (e.g., permit or variance review),

(3) conflicting requirements,

(4) emergency actions,

(5) unreasonable administrative enforcement, and

(6) changes in policy.

Major EPA programs were screened to identify possible contexts where losses would be most apt to occur. Then, each category was analyzed for the programs involved by applying the factors identified during Phases I and II, and conclusions were reached regarding the probable need for indemnification.

A third task involved consultation with industry representatives and other persons. One critical indication of a need for indemnification in specific instances is that affected persons express a need for compensation. This, in fact, has been the traditional manner in which any kind of special subsidization or compensatory relief has been granted in the past.

No comprehensive survey was conducted. However, major trade associations were consulted regarding their knowledge of incidents for which indemnification might be considered appropriate. These persons were also asked their opinion on the general desirability of new indemnification programs. Trade association representatives often referred us to specific industry contacts. In addition, industry representatives were called to discuss specific issues involving their industry as they arose. The list of organizations contacted during this study is provided as Appendix C to this report.

5. Report

The results of all three phases of study are reported here. A background section introduces the reader to the concept of government indemnification, explaining its historical basis and tracing its development. Factors affecting any indemnification decision are briefly described, and an analytical method for evaluating EPA programs is presented.

The evaluation of EPA programs follows and is presented in two separate sections. First we examine existing EPA indemnification programs and the need for extending these programs to closely analagous circumstances. Second, other loss categories are evaluated for all EPA programs.

At the end of the report, conclusions are presented, along with a summary of findings supporting the conclusions and an explanation of the reasoning involved.

Appendix A contains detailed background information which supplements Section II. Appendix B discusses various remedial or loss avoidance mechanisms which may be alternatives to indemnification. As noted, Appendix C presents a list of the organizations contacted

during this study. Appendix D discusses means of financing indemnification programs. Appendix E presents a methodology for estimating the cost, including two examples that illustrate the problems.

B. MAJOR ISSUES

In addressing the requirements of § 25(a), numerous issues of interpretation were raised. The major issues are described below.

1. "Any Person"

According to § 25(a), the goal of the study would be to determine whether indemnification should be accorded "any person as a result of any action taken by the Administrator." An issue for interpretation was whether "any person" should include all persons potentially affected by EPA actions, including not only the directly injured party, but also persons dependent on that party to some degree (e.g., employees, purchasers), or persons incurring injury indirectly because of the action's effect on the directly injured party (e.g., consumers, local community).

This question was resolved by limiting the study to directly injured parties. For example, a ban on the sale and use of pesticides would directly affect both manufacturers and growers, but only indirectly affect the farm product purchasers. The latter type of injury has not been covered in this study. This restriction in scope was necessary to allow for achievement of reasonable project goals within an acceptable budget and timeframe. Moreover, the need to reimburse indirect loses may be evaluated, if necessary, in the same analytical framework applicable to directly injured parties.

2. "Indemnification"

Another major issue involved the definition of "indemnification." Should the study be restricted to circumstances involving reimbursement of a person for claims paid by that person (the traditional definition), or should it include, in addition, other costs incurred as a result of the agency action? A review of the legislative history of § 25(a) indicated congressional interest in the need to reimburse any costs associated with EPA action, and the study has been structured to consider all circumstances involving any reimbursable costs.

3. The Question of an Indemnification Formula

One way to fulfill the mandate of § 25(a) would be to define criteria, assign weights to them and fashion them into a formula that could be applied to any loss situation to determine whether or not indemnification was warranted. An attempt was made during this study to design such an indemnification formula. In the end, however, no predictive formula could be stated. From this attempt we concluded that certain criteria should always be considered, but the issue of whether indemnification is warranted is ultimately a question of policy and circumstances.

Much of the report focuses on whether a prospective indemnification program is warranted. The criteria governing decisions to establish indemnification programs are more objective and easier to generalize than those applying to individual payments. However, this does not reflect a conclusion that there are no individual circumstances in which indemnification is appropriate. Instead, this report attempts to provide some guidance on how such decisions should be made.

4. "Federal Laws Administered by the Administrator"

Although the study requirement pertains to all federal laws implemented by EPA, only major environmental statutes were considered, and among these, only those provisions pertaining directly to environmental protection were evaluated. Thus, among the laws and provisions excluded from consideration in this study are those concerning civil rights, contracts, civil service, employment, and environmental consultation to other agencies.

5. Other Environmental Losses

In the course of research for this project, several examples of environmentally related losses were brought to our attention. For a variety of reasons, they do not fall into the scope of the study mandate which is to consider losses caused by actions of the Administrator under any of the laws administered by EPA. As the reader of this study is likely to be familiar with at least some these examples, we set forth the reasons that they do not appear in this study:

- Health effects of old hazardous waste sites. Injuries from hazardous waste sites are directly caused by those who build and maintain them and only indirectly by the government. If the injury was caused before EPA had been given regulatory authority, there would be no basis for a claim against the Agency. This would not fall into the category of formal decisions not to take action which have been considered Agency actions for the purposes of this study.

- Conflicts with state common law. A state court ordered the owner of a hazardous waste disposal site to close it and dispose of the waste elsewhere. Even though the disposal site had been in compliance with EPA regulations, it was found to be a nuisance under state law. The loss suffered by the owner was caused by state action and not by any action of EPA.

- Urea-formaldehyde foam. The Consumer Product Safety Commission recently banned the use of UF foam, and this has caused direct losses to firms who manufacture and install it. These are the kinds of losses which this report considers, but the

ban came after we had concluded our research and the situation was too uncertain at earlier stages to analyze. The losses caused to homeowners by reduction in the value of their homes is speculative and indirect and also does not fall within the scope of the study.

- Asbestos insulation. There are several pieces of legislation proposing compensation for workers who were exposed to asbestos on the job and have suffered health affects as a result. The reason for the bills is that neither the insurance market nor workers' compensation now appear likely to provide a satisfactory response to this problem. In addition, the government was the employer for some of the exposed workers in its shipyards. Obviously, this is not related to any EPA action. However, the problem of school districts having to identify and remove insulation in their schools pursuant to EPA regulation is mentioned in this study.

C. OTHER INFORMATION

Information for this study was collected from November 1978 through May 1982. During this time, significant legislative and agency activity relevant to this study occurred -- including the proposal and elimination of government indemnification programs, the presentation of major indemnification claims under § 15 of FIFRA, and the initiation of new federal regulatory and budget policies that will affect the future consideration of indemnification programs by Congress. This report is largely up-to-date on such issues. However, the political backdrop to regulatory relief is still changing, and the indemnification issue primarily involves policy judgments affected by evolving considerations.

II. BACKGROUND ON INDEMNIFICATION

A. THE STUDY MANDATE UNDER TSCA § 25(a)

1. The Statutory Provision

Section 25(a) of TSCA provides:

> (a) INDEMNIFICATION STUDY.--The Administrator shall conduct a study of all Federal laws administered by the Administrator for the purpose of determining whether and under what conditions, if any, indemnification should be accorded any person as a result of any action taken by the Administrator under any such law. The study shall-
>
> (1) include an estimate of the probable cost of any indemnification programs which may be recommended;
>
> (2) include an examination of all viable means of financing the cost of any recommended indemnification; and
>
> (3) be completed and submitted to Congress within two years from the effective date of enactment of this Act.
>
> The General Accounting Office shall review the adequacy of the study submitted to Congress pursuant to paragraph (3) and shall report the results of its review to the Congress within six months of the date such study is submitted to Congress.

2. Meaning and Origin of the Study Mandate

The genesis of the § 25(a) study mandate occurred in 1972 when the 92nd Congress enacted § 15 of FIFRA requiring EPA to indemnify certain pesticide owners suffering losses due to EPA's emergency suspension and cancellation of a pesticide registration.[1] This indemnification provision was supported by the House Agriculture Committee and initially opposed by the Senate, but the Senate ultimately accepted the provision in order to get the pesticide bill passed.[2]

Subsequently, in the 93rd Congress the Senate attempted to repeal the pesticide indemnification provision and prevent its inclusion in toxic substances control legislation.[3] The attempt was a part of a Senate amendment to an unenacted toxic substances control bill, which also would have required EPA to commission an independent study of indemnification to be conducted by a university or independent research center.[4] Although TSCA did not pass during the 93rd Congress, it was enacted in 1976 during the second session of the 94th Congress and included the study mandate noted above.[5]

While the term "indemnification" was not expressly defined in § 25(a) as enacted, a predecessor bill which passed the Senate defined "indemnity" as:

> . . . any payment made to a person as reimbursement for loss or damage other than a payment made in accordance with the judgment of any Court in an action brought at common law or under the [Federal Tort Claims Act].[6]

Thus, the "indemnification" with which this study is concerned involves compensation or reimbursement for loss or damage incurred by any person as a result of an action by the EPA Administrator in administering Federal laws. Excluded from this definition is any payment that the party might receive from the government through a judgment in a court of law. Also excluded are a variety of federal government payments which do not involve reimbursement for loss, such as:

- Payments to government employees or contractors for public services.
- Entitlement payments and subsidies to particular groups, including the poor, the elderly, veterans, and farmers. Sometimes these benefits take the form of loans, loan guarantees, or tax credits.

In addition, some federal programs are designed to cover the risk of various losses and provide reimbursement payments out of an insurance reserve funded by premiums paid by the parties protected from potential loss. The federal government is involved in insurance or reinsurance covering crops, floods, crime, urban riots, nuclear disasters, bank or savings and loan failures, war risks, mortgages, health and medical, unemployment and exports.[7] To the extent that payouts are funded by premiums, instead of by payments from the federal treasury, these insurance programs are distinct from government indemnification.

Similarly, restoration funds such as those available under Superfund which are supported by an "injury tax" or a surcharge on a product or activity related to the purpose of the fund (e.g., cleaning up hazardous waste sites) are distinct from government indemnification.[8] Furthermore, disaster relief payments or other financial support such as loans or loan guarantees in emergency circumstances are not within the scope of government indemnification contemplated by this study. Nor is victim compensation or emergency relief in environmental impairment type situations.[9]

Indemnity payments by the federal government thus consititute a very small portion of the overall total of government payments. Even among federal mechanisms designed to protect against risk, government

indemnification is only one small part, because premium-funded federal insurance mechanisms and restoration funds cover a wide variety of potential loss categories.

B. HISTORY OF INDEMNIFICATION BY THE GOVERNMENT

The following brief background information is documented and discussed in detail in Appendix A and in the portions of this report covering existing EPA indemnification programs.

1. Traditional Limitations

The concept of sovereign immunity -- which bars a suit against the government except with its permission -- provides a key to understanding the question of indemnification by the government. Sovereign immunity protects the government from being legally forced to provide compensation to injured parties.[10] Nevertheless, there are areas where, either by constitutional provision or by statute, the government has waived its immunity and can be sued for money damages. For example, the Fifth Amendment requires compensation when private property is taken for public use, and contract claims and some tort suits against the government have been expressly authorized by statute.

Such judicial actions for damages, however, are narrowly prescribed, and regulated parties usually are not paid by the government to comply with regulatory requirements. Nor are they normally compensated for the burdens of regulation or the adverse effects of government actions. Although the Federal Tort Claims Act allows suits against the government for operational negligence, such as careless driving, liability suits against the government are not authorized for negligence in performing discretionary functions such as promulgating regulations.[11] The government is also protected from damage suits based on misrepresentations made by government employees.[12] Furthermore, courts have consistently refused to interpret statutes as implying private rights of action against the government for damages.[13] Moreover, the Anti-Deficiency Act[14] precludes executive branch employees from making a promise of indemnification without an express congressional authorization and appropriation.

These traditional limitations on indemnification for the adverse effects of governmental actions stem, to a large extent, from a fear of creating precedents which would require government indemnity payments for a wide range of regulatory activities, and from the belief that situations that might require indemnity should be avoided so as to make such payments unnecessary. Some of the arguments against paying compensation to parties injured by regulatory activities are:

(1) Government could not function if it had to compensate parties for all the regulatory burdens which it imposes;[15]

(2) The essential character of government regulation involves the uncompensated adjustment of individual rights for the public good;[16]

(3) Business risks and regulatory liabilities have traditionally been placed upon private parties;

(4) Indemnification can be disruptive of governmental program objectives;

(5) A decision to indemnify in one circumstance can set a costly precedent requiring compensation payments in many additional circumstances; and

(6) Alternative remedial devices which avoid loss or lessen harm are usually preferable to indemnification.[17]

Since the enactment of § 15 of FIFRA in 1972, no new prospective programs have been enacted for the purpose of compensating a private party for commercial loss due to anticipated agency action. Instead, Congress has tended to put the risk of loss with the party who engages in activity requiring regulation. To protect against unforeseeable harm, Congress has established procedures requiring ample notice to, and participation of, affected parties in the development of regulations; and to protect against unintended harm, Congress has provided for waivers and exceptions, as well as for timely administrative petitions and judicial review. Most regulatory statutes implemented by EPA contain an ample variety of these loss avoidance and special relief mechanisms. Moreover, inquires of representatives of industries affected by EPA statutes disclosed no demands for indemnification from unforeseeable or erroneous regulation (other than events subject to existing indemnification authority).

The option of indemnifying regulated parties for losses due to EPA action has received very little attention from the current Congress, since industrial losses can be prevented by relaxing regulatory requirements, and an indemnification program could pose an even greater drain on the federal budget. The concern over budget is particularly evident in the recent proposals to Congress for fiscal year 1983, which would cut back existing indemnification programs at the Department of Agriculture for diseased livestock and contaminated milk.[18] Last year, Congress agreed to eliminate the Agriculture indemnification program for beekeepers.[19]

2. Examples of Government Indemnification

a. Indemnification Categories

Indemnification has been used in a variety of circumstances and for one or more of the following reasons:

- remedying inequities;

- creating disincentives to inappropriate or unreasonable government action; and

- creating incentives for action by parties outside the federal government to facilitate achievement of a public goal.

Some congressional indemnification determinations have occurred after the fact of loss. Others have involved prospective programs designed as incentives or disincentives. Most of the equity determinations have been made on a case-by-case basis, unless a clear and regular pattern of loss has been identified which would warrant an indemnification program.[20]

b. Indemnification on Equitable Grounds

Indemnification for equitable reasons includes the payment of compensation for the taking of private property for public use. Under the Fifth Amendment of the Constitution, a compensable taking occurs only when full title to property is actually expropriated, the normal indicia of property ownership are all destroyed, or an important property element is expropriated for the use of another.[21] The seizure of contraband or substances injurious to public health does not constitute a taking for which compensation is required.[22]

The Federal Tort Claims Act, originally passed in 1946, partially waives the government's immunity from suit and permits negligence actions to be brought against it, except for discretionary acts, misrepresentations, and certain other specific exceptions.[23] Similarly, the Tucker Act authorizes contract and other non-tort money claims to be brought against the government in the Court of Claims.[24]

Some parties injured by government actions have successfully sought equitable relief from Congress by means of private bills covering specific cases.[25] Sometimes Congress refers such matters to the Court of Claims commissioners for an advisory determination, and sometimes it confers special jurisdiction on the court for a particular case.[26] Examples of such congressional relief for the adverse consequences of government error include the Mizokami spinach case[27] and the Marlin toys case.[28] In each of those situations, the misrepresentation exception to the Federal Tort Claims Act prevented a negligence action from being maintained. In the spinach case, the Mizokami brothers were awarded more than $300,000 in damages suffered when the FDA incorrectly found certain spinach to be contaminated by the pesticide heptachlor. In the Marlin toys case, more than $40,000 was awarded as compensation for loss that occurred when a toy was incorrectly listed by the CPSC as being banned.

The CPSC ban on children's sleepwear containing the chemical flame retardant Tris is a recent instance in which Congress has

indicated that indemnification can be appropriate to correct an inequity.[29] Although the first Tris bill was vetoed by President Carter, a second bill passed the Senate last year and is awaiting action by the House. In the Tris case, the CPSC had established flammability standards for children's sleepwear, and many manufacturers met the requirement by using fabrics treated with Tris. When Tris was later determined to be carcinogenic, a ban was imposed on further sales and repurchase by the clothing manufacturers was required.

In most cases where no Court of Claims or Federal Tort Claims action is available, it is necessary to petition Congress for a private bill. However, in the cranberry case of 1959, the USDA tapped an existing fund without having to go to Congress.[30] More than $8 million was paid to cranberry growers adversely affected by government publicity concerning cranberries grown in the states of Washington and Oregon which were contaminated with a dangerous herbicide. The indemnity payments compensated the growers of untainted cranberries in other states who were unable to sell their crops due to the scare over pesticide contamination.

Finally, the EPA pesticide indemnity program under § 15 of FIFRA is based partially upon equitable concepts in that compensation is to be paid to pesticide owners who suddenly are forced to dispose of stocks of pesticides which the government had previously registered.[31]

c. Disincentives to Inappropriate or Unreasonable Government Action

A prospective indemnification program can be intended as a disincentive to undesirable government action. Indemnification can force the government agency to internalize the expense of losses suffered as a result of agency action, and thereby stimulate a more thorough consideration of whether or not such losses can be avoided. Often an accompanying rationale for indemnification under these circumstances is a desire to compensate the injured party for equitable reasons.

Indemnification under § 15 of FIFRA was intended by some as a disincentive to hasty or ill-considered pesticide registration. It has also been suggested that § 15 operates as a disincentive to EPA's cancellation of pesticides without the use of the "Special Rule" under § 15 which allows existing stocks of pesticides to be used or sold even after an emergency cancellation of the registration.

The Equal Access to Justice Act, passed in 1980, is a recent example of a statute designed to prevent or punish unreasonable government action.[32] It accomplishes this by awarding court costs and attorneys' fees to successful small business litigants (in court and informal agency adjudications), unless the agency can prove that its action was "substantially justified."

A similar disincentive provision exists under § 113 of the Clean Air Act which authorizes a court to award attorneys' fees and costs if EPA brings an unreasonable Clean Air enforcement action.[33]

d. Indemnification as an Incentive for Action by Parties Outside the Federal Government to Facilitate Achievement of a Public Goal

Prospective indemnity programs may be established as incentives to prompt action by parties other than Federal agencies. An indemnity program can also facilitate achievement of public goals by removing disincentives to outside party action.

There are numerous agricultural indemnity programs that operate as incentives.[34] Pesticide problems are the basis for most of the agricultural indemnity programs. Two of them, in addition to FIFRA § 15, address the problem of a farmer caught between the conflicting goals of using pesticides to increase productivity and protecting the public food supply from contamination by dangerous residues. When food is barred from the market because of unacceptable pesticide residues, notwithstanding the farmer's lawful use of such pesticides, part of the loss has been shifted to the government.

The beekeepers program compensated for damage done to bees by pesticides developed as substitutes for DDT.[35] The program was officially terminated after Congress apparently decided last summer that twenty years was sufficient time to adjust to the cancellation of DDT.

The dairy indemnity program compensates dairy farmers prevented from marketing milk with unacceptable pesticide residues.[36] At one point dairy farmers received $350,000 a year as compensation for such losses. Apparently, current pesticides are not as persistent and do not prevent milk from being marketed as often. Only $40,000-$50,000 a year has been paid in recent years. However, a major contamination incident in Hawaii this year may overwhelm the program with millions of dollars in claims.

The cranberry case mentioned above is a fourth instance of pesticide-related indemnities.

The animal disease program is the oldest and most costly agricultural indemnity program.[37] It accompanies and supports a cluster of USDA programs aimed at the eradication of particular livestock diseases. The money paid for destruction of diseased and exposed animals serves as an incentive for farmers to cooperate with the program. Between 1970 and 1981, more than $180 million of indemnities were paid under the diseased livestock program.

Another health-related, but non-agricultural, indemnity program is associated with the swine flu vaccine.[38] As an incentive

to get vaccine manufacturers to produce swine flu vaccine, the government accepted some of the liability risk of the immunization program. In a complicated arrangement, the government agreed to accept the vaccine manufacturers' potential strict product liability for personal injuries due to the vaccine. Under this scheme, an injured victim is permitted to sue only the federal government under state tort law. Later, if negligence is proved, then the government can in turn recover from the parties responsible for the negligence. In effect, the federal government has accepted the product liability exposure of the vaccine manufacturers for liability in excess of that for negligence. Thus far, more than $40 million of awards or settlements have been made by the government under the program, out of more than 4,000 claims seeking $2.95 billion.

The Arts and Artifacts Indemnity Act enables the federal government to indemnify American museums for losses incurred in exhibiting international loaned art or artifacts.[39] Under the Act the program my not obligate more than $400 million at any one time and there is a limit of $50 million per exhibit. Although no indemnity payments have yet been made, the fact that museums do not have to purchase private insurance for the amount covered by the federal indemnification program has saved an estimated $800 million in insurance premiums as of the summer of 1981.

Indemnification clauses in government defense contracts[40] are similar in many ways to the Arts and Artifacts Program. Although the Anti-Deficiency Act usually prevents an Executive Branch official from promising to pay a contingent and uncertain liability, Congress and the President have made exceptions for contracts that "facilitate the national defense" and are "unusually hazardous or nuclear in nature." Although such contractual indemnification clauses have frequently been used, no claims have actually been paid by the government to date.

Indemnification for government contractors is a matter of current congressional concern. Objections to classifying certain activities as "unusually hazardous," resulted in 1981 legislation permitting an indemnification clause in NASA contracts for the benefit of space shuttle users. It has also led to an interagency task force, co-sponored by the Office of Federal Procurement Policy and NASA, which recently completed a draft report recommending expansion of indemnification authority to include catastrophic losses beyond those covered by reasonably available insurance but not "unusually hazardous." There is also a proposed bill to indemnify all suppliers of products to the government.

Indemnification has also been used as an incentive to encourage prompt private-party clean up of oil spills or hazardous waste spills.[41] Section 311(i) of the Clean Water Act encourages an innocent discharger to assist in clean up by promising to reimburse

him for the reasonable costs involved. The Outer Continental Shelf Lands Act Amendments of 1978, the Deepwater Port Act of 1974 and the Trans-Alaska Pipeline Authorization Act all contain provisions pertaining to oil spills that are similar in basic design to § 311. The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) contains provisions relating to hazardous substance spills. While CERCLA contains no provision identical to § 311(i), a similar result is accomplished under § 111(a) which provides that the President may pay claims for necessary response costs incurred by any person as a result of carrying out the national contingency plan, so long as such costs are approved under the plan and are certified by the responsible federal official.

Another incentive program is that under § 202(a)(3) of the Clean Water Act which authorizes EPA to provide 100 percent funding of modification or replacement costs of failed municipal wastewater treatment facilities using innovative or alternative technology.[42] This provision acts as an insurance policy designed to encourage use of new and risky technology.

FOOTNOTES TO SECTION II

[1]FEPCA, the Federal Environmental Pesticides Control Act of 1972, P.L. 92-516, 86 Stat. 973, contained, in Section 15, a provision amending FIFRA, the Federal Insecticide, Fungicide, and Rodenticide Act. P.L. 80-104, 61 Stat. 163.

[2]The § 15 indemnities provision was part of H.R. 10729. See H.R. Rep. No. 92-511, 92d Cong., 1st Sess. (1971) (accompanying H.R. 10729). Two Senate Committees amended H.R. 10729 to strike out the pesticide indemnity provision, and the Senate as a whole approved this change. S. Rep. No. 92-838, 92d Cong., 2d Sess. (1972). Specifically, the Senate Committee on Agriculture and Forestry adopted the amendment, and the Senate Commerce Committee on June 23, 1972 reported the legislation out without any changes to the Agriculture and Forestry Committee's decision against indemnities. The Senate on September 26, 1972, passed H.R. 10729 in this form. However, the pesticide indemnification provision was restored in Conference and became law in 1972. Committee of Conference, S. Rep. No. 92-1540, 92d Cong., 2d Sess. (1972).

[3]The Senate toxic substances control bill originally made no mention of indemnification. However, this bill (S. 426) was amended by the Senate to provide that no indemnity payments should be made under TSCA or under § 15 of FIFRA. 119 Cong. Rec. 24494-95 (1973). See also Toxic Substances Control Act of 1973: Hearings on S. 426 and Amendments 1, 8, and 9 Before the Subcomm. on Environment of the Senate Comm. on Commerce, 93d Cong., 1st Sess. (1973) and Toxic Substance Control Act of 1973; S. Rep. No. 93-254, 93d Cong., 1st Sess. (1973).

[4]S. 426 as reported out of the Senate Commerce Committee contained the described provisions of Senator Phillip Hart's Amendment No. 9 on indemnification. The bill passed the Senate on July 18, 1973 with this provision intact.

[5]The House toxic substances control bill in the 93rd Congress made no mention of indemnification, and no bill emerged from Conference in the 93rd Congress. See Toxic Substances Control Act of 1973: Report of the House Comm. on Interstate & Foreign Commerce, H.R. Rep. No. 93-360, 93d Cong., 1st Sess. (1973). Neither H.R. 5087 nor H.R. 5350 contained any indemnification provisions.

The idea of a study of indemnification reemerged in the first session of the 94th Congress in 1975. The Senate bill (S. 776) again called for an independent study of indemnification but, unlike the amended version of S. 426 in the 93rd Congress, did not attempt to bar indemnification under TSCA or under § 15 of FIFRA. A House bill (H.R. 7229) contained a provision requiring a study by the General Accounting Office (GAO) of indemnification under all laws administered by

EPA. See Toxic Substances Control Act: Hearings on H.R. 7229, H.R. 7548, and H.R. 7664 Before the Subcomm. on Consumer Protection & Finance of the Comm. on Interstate & Foreign Commerce, 94th Cong., 1st Sess. (Serial No. 94-41) (1975). H.R. 7229, H.R. 7548, and H.R. 10318 contained indemnification provisions, but H.R. 7664 did not. There was no debate on the floor of either body in 1975 on the issue of indemnification, and again nothing emerged from Conference.

In 1976, during the second session of the 94th Congress, the House bill (H.R. 14032) contained the § 25(a) provision that was finally adopted into law. Toxic Substances Control Act: Report by the House Comm. on Interstate & Foreign Commerce [H.R. 14032], 94th Cong., 2d Sess. (1976). The Senate bill (S. 3149) contained a similar section, with the difference that the GAO, instead of the EPA, was to conduct the study. S. 3149 was cleaned-up version of S. 776. Toxic Substances Control Act: Report of the Senate Comm. on Commerce [H.R. 14032], 94th Cong., 2d Sess. (1976). In Conference, the Senate bill was largely adopted, although the House indemnification study provision was used instead of the language from the Senate bill. Toxic Substances Control Act: H.R. Rep. No. 94-1679, 94th Cong., 2d Sess. 100-101 (1976). Again, there was no debate in either the Senate or the House focusing on § 25(a). The bill passed both bodies on September 28, 1976 and was signed into law by President Ford on October 11, 1976. P.L. 94-469, 15 U.S.C. §§ 2601 et seq.

[6]Senator Hart's Amendment No. 9 to S. 426, supra note 4, included this definition of indemnity. A review of case decisions and secondary sources defining "indemnity" and "indemnification" reveals that the terms "indemnity," "compensation," "contribution," and "insurance" are closely related, and frequently one term is used to define another. Nevertheless, each term has a distinct legal meaning that sets it apart from the other terms.

"Compensation" is the broadest of the four terms. 15A C.J.S. "Compensation" at 102 (1967); Black's Law Dictionary 256 (5th ed. 1979). It refers to a transaction between two or more persons in which one person restores another person to his former position, usually through the payment of money. In the case of liability for physical injuries, compensation involves the payment of money to make the injured person whole, i.e., through reimbursement for medical expenses, lost earnings, etc. Compensation may also relate to payment for services rendered, or for property taken or destroyed.

The right of "indemnity" may arise either in equity (to avoid unjust enrichment) or in contract, where one party obligates himself to insure a loss or to discharge a duty or obligation. In the context of an equitable remedy, "indemnity" is a right which inures to a person who has discharged a duty owed by him, but which should have been discharged by another person. Restatement of Restitution § 76; 41 Am. Jur. 2d "Indemnity" § 1, at 687 (1968); American Mutual Liability

Insurance Co. v. Reed Cleansers, 265 Minn. 503, 122 N.W.2d 178, 182 (1963). To illustrate, an employer orders an employee to repossess the car of a third person. In fact the employer had no right to repossess the car, and thus the repossession amounted to a conversion of the car. The employee is liable to the third party for his tortious act in taking the car. However, since the employee acted within the scope of his employment, he would be entitled to indemnification from his employer who is primarily liable to the third party for the conversion of the car.

In the context of "indemnity" as a contractual remedy, the insurance situation is a common example. 42 C.J.S. "Indemnity" § 1 at 564, and § 3 at 566 (1944); Ballantine's Law Dictionary at 608; Black's Law Dictionary at 692. By contract, the insurer agrees to indemnify the insured against loss or liability. While the insured is liable to the third party for the loss which the third party sustained, the insurance carrier by contract has obligated itself either to pay the third party for the loss, or to reimburse the insured for the amount which he paid to compensate the third party. In this instance, the contract imposes the responsibility upon the insurance carrier and creates the right of indemnity for the insured.

"Contribution" is the right of one who pays more than his proportionate share of an obligation to be compensated by the others who were also liable. Restatement of Restitution § 81 and Comment b; Black's Law Dictionary 297 (5th ed. 1979); Shannon v. Massachusetts Bonding & Insurance Co., 62 F. Supp. 532, 537 (W.D. La. 1945). Examples of such parties are joint tortfeasors or joint obligors on a draft. Contribution differs from indemnity in that the liability is shared, rather than the whole burden being shifted from one party to another.

"Insurance" is simply a contract by which the insurer undertakes to indemnify the insured against loss arising from a specific event. 44 C.J.S. "Insurance" § 1b at 473 (1945); Physicians' Defense Co. v. Cooper, 199 F. 576, 578 (9th Cir. 1912); Black's Law Dictionary at 721. Ballantine's Law Dictionary at 642; Jordan v. Group Health Ass'n, 107 F.2d 239, 245 (1939). The contract of insurance has three basic elements. First, there must be consideration or value given to the insurer in exchange for its obligation to pay. In most instances consideration will take the form of the premiums which the insured pays on his policy. Second, there must be a risk which is unknown or contingent, and against which the insured is protected. The risk may be in the form of harm to the insured himself or of liability to a third party. Finally, there must be indemnity, i.e., a specified sum to be paid by the insurer in the event loss is suffered from the occurrence of the event or contingency specified in the contract. Thus, by contract responsibility for payment of the loss is shifted from the insured to the insurance carrier.

[7]Federal Crop Insurance Corporation, 7 U.S.C. §§ 1501 et seq.; National Flood Insurance Program, 42 U.S.C. §§ 4001 et seq.; Federal Crime Insurance, 12 U.S.C. §§ 1749 bbb-10a et seq.; Urban Property Protection and Reinsurance Act, 12 U.S.C. §§ 1749 bbb et seq.; Nuclear Energy Liability Insurance, 42 U.S.C. §§ 2210 et seq.; Federal Deposit Insurance, 12 U.S.C. §§ 1811 et seq. (FDIC), 12 U.S.C. §§ 1725 et seq. (FSLIC), and 12 U.S.C. §§ 1781 et seq. (share insurance for credit unions); war risks insurance, 46 U.S.C. §§ 1281 et seq. (marine war risk insurance) and 49 U.S.C. §§ 1531 et seq. (air war risk insurance); mortgage and housing insurance, 12 U.S.C. § 1703 (insurance of institutions which finance housing); 12 U.S.C. §§ 1706c et seq. (mortgage insurance); 12 U.S.C. §§ 1736 et seq. (war housing insurance); 12 U.S.C. §§ 1747 et seq. (insurance of investments in rental housing); 42 U.S.C. §§ 1471 et seq. (federal housing); 46 U.S.C. §§ 1271 et seq. (ship mortgage insurance); health and medical insurance, 5 U.S.C. §§ 8901 et seq.; 42 U.S.C. §§ 1395 et seq.; unemployment insurance, 45 U.S.C. §§ 351 et seq.; Export-Import Bank tangible property insurance, 12 U.S.C. § 635. See also Overseas Private Investment Corporations's insurance of corporate investments abroad, 22 U.S.C. § 2191.

[8]See Appendix B on Alternatives to Indemnification, page B-6.

[9]Recently, Congress has been willing to assist industry in the face of potentially enormous claims due to personal or property injury by establishing liability limits and assisting with payment of the claims. The Comprehensive Environmental Response, Compensation and Liability Act of 1980, P.L. 96-510, 94 Stat. 2767, establishes liability limits for damages and cleanup costs associated with inactive chemical disposal sites and chemical spills and it establishes a fund (financed primarily by industry) to facilitate, among other matters, cleanup and remedial activity where fault or responsibility cannot be determined. Recently proposed legislation in both the House and the Senate involving occupational injuries related to asbestos would utilize the same method: a limit on liability and an industry financed fund to cover claims. See H.R. 5224, sponsored by Rep. Millicent Fenwick (R-N.J.) and H.R. 5735, sponsored by Rep. George Miller (R-Cal.).

In both the case of chemical discharges and asbestos injuries, however, there is an apparent congressional attitude that those persons responsible for damages and injuries should absorb the costs involved. Government assistance is justified because it primarily benefits the public or the class of injured persons, rather than industry. The prevailing attitude appears to be that the government may consider stepping in where traditional market incentives and remedial systems (e.g., insurance, liability law, judicial administration and resolution of disputes) fail to address effectively a significant and widespread problem. An additional motivating factor involving asbestos injury claims is that the government has also been an employer of asbestos exposed workers, particularly in public shipyards during World War II.

A legislative assistant to Representative Millicent Fenwick who is familar with the current debate over proposed asbestos legislation thought that the primary purpose of such legislation is to assist the worker exposed to asbestos. If this results in underwriting or limiting industry costs to some extent, she thought it would be acceptable to Congress if that were the only way to provide the needed assistance. Both industry and the workers face huge legal costs and uncertainty in the court system. The worker who is injured is often compensated after he dies, loses a significant amount of the award in legal fees, and may often be barred from recovery entirely by state law which is not designed to handle claims resulting from injury over a 20- to 30-year period. The evidence suggests that the majority of exposure cases have yet to appear and the problem for industry, the courts and the worker will become significantly larger in the years to come.

See also § 301(e) of CERCLA which mandated a study concerning common law and statutory compensation remedies for harm to man and the environment caused by release of hazardous substances, and Six Case Studies of Compensation for Toxic Substances Pollution: Alabama, California, Michigan, Missouri, New Jersey, and Texas, Congressional Research Service Report for the Senate Committee on Environment and Public Works, 96th Cong., 2d Sess. (June 1980) (Serial No. 96-13).

[10]Appendix A, page A-2.

[11]Appendix A, page A-4.

[12]Appendix A, page A-6.

[13]E.g., Eastport Steamship Corp. v. United States, 178 Ct. Cl. 599, 608-11 (1967) (damages denied in claim against Maritime Commission for an alleged abuse of its discretion to grant a license or approval. The Court of Claims referred to the "persistent refusal by the federal legislature to permit damage claims against the United States resulting from wrongful regulatory activity").

[14]31 U.S.C. 665(a), 41 U.S.C. 11(a).

[15]Andrus v. Allard, 444 U.S. 51, 100 S. Ct. 318, 326 (1979) (5th amendment taking case).

[16]Id.

[17]Some additional arguments against compensation are:

(7) Parties affected by government regulations should be encouraged to foresee and prevent or mitigate the potentially negative effects of those regulations;

(8) An Executive Branch promise to indemnify in the future at an unknown cost would interfere with the legislative prerogative to authorize and appropriate money;

(9) Money damages are often not an appropriate or effective remedy for harms due to regulatory activities;

(10) Private parties should not be paid for compliance with health and safety regulations.

[18]Appendix A, page A-8.

[19]Appendix A, page A-8.

[20]A prime example of the use of an indemnification program to deal with recurring loss situations is the Federal Tort Claims Act. Once a pattern or a sufficient number of loss incidents becomes clear, Congress will usually consider establishing a regular mechanism to handle the claims.

[21]Appendix A, page A-7.

[22]Appendix A, page A-7.

[23]Appendix A, page A-2.

[24]Appendix A, page A-15.

[25]Appendix A, page A-12.

[26]Appendix A, page A-15.

[27]Appendix A, page A-20.

[28]Appendix A, page A-21.

[29]Appendix A, page A-22.

[30]Appendix A, page A-20.

[31]Report, infra page 30.

[32]Report, infra page 67.

[33]Report, infra page 63.

[34]Appendix A, page A-18.

[35]Appendix A, page A-19.

[36]Appendix A, page A-19.

[37]Appendix A, page A-18.

[38]Appendix A, page A-23.

[39]Appendix A, page A-25.

[40]Appendix A, page A-26.

[41]Report, infra page 75.

[42]Report, infra page 50.

III. EVALUATION OF EPA PROGRAMS

A. CRITERIA FOR EVALUATING THE NEED FOR INDEMNIFICATION WITHIN EPA PROGRAMS

1. General Nature Of The Criteria

Consideration was given in this study to developing a general rule or formula for deciding whether indemnification would be warranted in a particular circumstance. After efforts at logical analysis, deduction of patterns from previous indemnification incidents, and use of tentative formulas tested by application to actual cases and to hypothetical situations, it was concluded that a formula approach would be extremely complex and probably ineffective. Thus, while general criteria and relevant factors for analysis were identified, no clear-cut and automatic formula was developed. Examples of past indemnities for the consequences of government regulations were too few and varied to provide conclusive patterns of important criteria. Precise indemnity determinants also cannot be derived theoretically because real cases appear to depend on unpredictable combinations of factors. All of the actual indemnity situations, and particularly those involving equitable considerations seem to be dependent upon the facts of an individual situation.

What follows, therefore, is not a mathematically precise formula that can be used automatically to decide when indemnification should be afforded a party who has suffered a loss. It is instead a list and brief description of criteria that we found to be most useful in evaluating the situations that we studied. Our conclusions about the way these factors have worked in specific instances may be found with the other conclusions in Section IV, infra. In evaluating these specific situations the factors either supporting or weighing against indemnification were assessed. Then, the factors supporting indemnification were balanced against those weighing against indemnification. Generally, we found that many of the factors involved an enormous range of possibilities and are often interrelated with other factors.

2. Specific Factors

a. The Justification for Indemnification

The balancing of arguments for and against indemnification may be expected to vary depending on the overall objective intended. The strength and nature of the justification for indemnification is a key element in deciding whether to grant it. Although many indemnity programs appear to have multiple goals, there are three possible categories of reasons for indemnification:

- Equity: Equitable considerations may favor after-the-fact indemnification when the government is "responsible" for the loss or has created an expectation that the government

should pay for the loss. Important considerations include: whether the loss was within an expected scope of business risk, whether the risk was insurable, whether the event causing loss was caused in part by the injured party, and if the loss resulted from reliance on the government, whether such reliance was reasonable. Another equity aspect is whether the party had procedural due process. This usually concerns opportunities to comment on or challenge the agency decision before the loss occurs.

- Disincentive: Indemnification may be intended to discourage certain government action. Under this category, equity considerations involving the nature or existence of a loss would be less important, since the major purpose would be to prevent agency action causing losses rather than subsequently remedying any inequities. Key considerations are whether such a disincentive is really needed and whether a practically effective disincentive can be structured which would not involve undesirable side effects.

- Subsidy or incentives: Indemnities may be used as subsidy payments for certain parties or financial incentives to encourage or permit a government objective or policy. Under this category, too, equity considerations would be less important, since the major purpose would be to encourage action by parties outside the federal government. Again, an important issue is whether an incentive is really necessary and workable.

b. Need for an Anticipatory Indemnification Program

A useful distinction in the indemnity analysis is whether the problem can be dealt with on a case-by-case basis or whether it requires an indemnification program. The factors relevant to this threshold question are relatively easy to apply in that three possible considerations may support the establishment of a program. First, there may be a need for a strong incentive to influence behavior. Second, a program can usually provide much faster processing of claims and payment than an ad hoc approach. Third, an institutionalized response may be required in order efficiently to handle frequent, similar claims.

c. Availability of Alternatives to Indemnification

This appears to be a very important factor in deciding whether or not to provide indemnification to deal with an alleged problem. Consideration must be given to whether compensation is already available from an existing mechanism such as a lawsuit under the

Federal Tort Claims Act. Also, there may be relief mechanisms such as exemptions and waivers which could be used to avoid loss and these may be viewed as a preferable alternative to indemnification. (Alternatives to indemnification are discussed in detail in Appendix B, infra.)

d. Impact on Other Policy Objectives

Another important factor is whether indemnification would support or conflict with other program objectives or legislation. Indemnification cannot be viewed in isolation. Its usefulness in a particular situation must be evaluated in light of potential negative side effects or related benefits.

e. Legislative Predetermination

This factor concerns whether Congress has already considered the issue of compensation or other remedies in the situation at hand and expressed a position that should be viewed as determinative. Alternatively, there may be relevant but inconclusive indications of congressional attitude that should be considered.

f. Cost of Indemnities

The dollar costs of indemnification must be compared to the overall benefits of providing indemnities. An indemnity payout may be unacceptably expensive to administer. Indemnification cost estimates may also be too unpredictable or speculative. However, there are a variety of ways in which the cost to the government can be contained, deferred, or shared, though they may result in less than full indemnity. Cost estimates may be more concrete if based upon analysis of the nature and frequency of losses that have already occurred, rather than upon abstract predictions. Consideration should also be given to whether an indemnity payment would establish a precedent for indemnification that could not readily be distinquished.

g. Ability to Finance and Administer

The feasibility and problems of administering and financing indemnification in particular circumstances should be assessed. Similar to the issue of dollar costs, administrative and financing difficulties must be compared to the potential benefits of an indemnity mechanism.

Indemnification payments need to be financed and administered in a manner that does not interfere unacceptably with the administration of other programs. The choice among the many ways that a program can be financed must be made carefully so that it furthers the goals of the indemnity programs and the underlying mission of the agency. Failure to choose a financing mechanism at the time the indemnity program is established may seriously undermine it, particularly if it is intended as an incentive.

B. INDEMNIFICATION UNDER § 15 OF FIFRA

1. The Existing Program[1]

a. Introduction

Section 15 of FIFRA provides for the indemnification of owners of a pesticide who suffer economic loss from the suspension and subsequent cancellation of the pesticide's registration. Section 15 was first enacted as part of the Federal Environmental Pesticide Control Act of 1972 (FEPCA),[2] which amended earlier versions of FIFRA.[3] Indemnification has been retained without change in the 1975, 1978, and 1980 versions of the Act.[4] The legislative history of the § 25(a) indemnification-study mandate shows that Congress was interested in the type of indemnification represented by § 15 of FIFRA.

Under § 15, indemnity for the cost of the pesticide must be paid by EPA to any pesticide owner in those rare circumstances where the owner can show that:

(a) The pesticide registration was suspended on the ground that it posed an imminent hazard;

(b) It was subsequently cancelled;

(c) The suspension or cancellation of a registration caused a loss to the owner of the pesticide; and

(d) If the claimant is the pesticide producer, that it notified EPA or discontinued production once it learned of facts giving rise to the need for the cancellation.

Section 15 also includes a "Special Rule" under which EPA may avoid causing economic losses by providing a reasonable time for use or disposal of a suspended and cancelled pesticide.[5]

No prior government program had ever provided indemnification to manufacturers of potentially hazardous products (automobiles, toys, or pharmaceuticals, for example).[6] However, government indemnities to farmers whose products have been destroyed or determined to be dangerous to health are common. These have included payments to cranberry growers,[7] beekeepers,[8] farmers with pesticide-contaminated milk,[9] and farmers with diseased livestock.[10] Section 15 substantially expanded the traditional agricultural indemnification subsidies by authorizing indemnification of manufacturers and sellers of pesticides, in addition to farmers and other and users of pesticides.

b. Statutory Language

Section 15 of FIFRA, 7 U.S.C. § 136, provides:

SEC. 15. INDEMNITIES.

(a) REQUIREMENT.--If--

(1) the Administrator notifies a registrant that he has suspended the registration of a pesticide because such action is necessary to prevent an imminent hazard;[11]

(2) the registration of the pesticide is canceled as a result of a final determination that the use of such pesticide will create an imminent hazard; and

(3) any person who owned any quantity of such pesticide immediately before the notice to the registrant under paragraph (1) suffered losses by reason of suspension or cancellation of the registration,

the Administrator shall make an indemnity payment to such person, unless the Administrator finds that such person (i) had knowledge of facts which, in themselves, would have shown that such pesticide did not meet the requirements of section 3(c)(5) for registration, and (ii) continued thereafter to produce such pesticide without giving timely notice of such facts to the Administrator.[12]

(b) AMOUNT OF PAYMENT.--

(1) IN GENERAL.--The amount of the indemnity payment under subsection (a) to any person shall be determined on the basis of the cost of the pesticide owned by such person immediately before the notice to the registrant referred to in subsection (a)(1); except that in no event shall an indemnity payment to any person exceed the fair market value of the pesticide owned by such person immediately before the notice referred to in subsection (a)(1).

(2) SPECIAL RULE.--Notwithstanding any other provision of this Act, the Administrator may provide a reasonable time for use or other disposal of such pesticide. In determining the quantity of any pesticide for which indemnity shall be paid under this subsection, proper adjustment shall be made for any pesticide used or otherwise disposed of by such owner.

c. Legislative History of § 15

Indemnification was not included in the predecessor pesticide laws of 1910, 1947, or 1964.[13] The indemnity provision was developed during 19 closed business meetings held by the House Agriculture Committee to work on H.R. 4152 in February 1971.[14] The indemnification section was later deleted from the Senate version of FEPCA passed in September 1972, but a slightly revised version of the House Committee Print section was included in the conference bill that passed both houses in October 1972.

Section 15 was a focal point of the debate over FEPCA among members of the agricultural community, pesticide producers and distributors, and representatives of environmental and consumer organizations.[15] As enacted, the indemnification provision largely reflected the position of the House Agriculture Committee. However, the Conference Committee did add a provision denying indemnities to manufacturers, acting in bad faith, who withheld information showing that their pesticides should not be registered.[16]

d. Implementation of § 15

(1) Overview

Because EPA has never developed regulations or guidance documents to implement § 15, ad hoc claim procedures were formulated for the Silvex case. To a great extent they followed the agreement negotiated primarily between EPA and Chevron Chemical Company.[17]

Before the Silvex case, the only circumstance meeting the requirements for indemnification under § 15 was a minor one involving vinyl chloride, a propellant in aerosol pesticide cans.[18] EPA paid three indemnity claims, totaling approximately $53,000, from EPA funds originally allocated to other purposes.

Two other emergency suspensions (Aldrin/Dieldrin and Heptachlor/Chlordane) occurred during the period from 1974-1976.[19] In both cases, existing stocks of pesticides were permitted to be used or sold, thereby avoiding any indemnifiable economic loss by the owners of the pesticides.

One claim has been paid to a farmer after the suspension and cancellation of DBCP. It appears that the total value of DBCP claims will not be large.[20] In addition, depending upon the outcome of the 2,4,5-T/Silvex pesticide cancellation proceedings, indemnification claims may also be made for 2,4,5-T and for Silvex products that were not cancelled by agreements.[21]

During the legislative hearings, an estimate of the value of nationwide inventory of one chemical was made at $30 million.[22]

This is within the range of the expected total indemnities for Silvex. The amount is approximately equal to one half of the total annual budget for EPA's Office of Pesticide Programs.

(2) Funding

No financing mechanism was provided for § 15. The statute states that, when certain requirements are met, "the Administrator shall make an indemnity payment," thus implying that funds are to come from EPA's budget.[23] However, no corresponding budget authorization or appropriation has ever been provided by Congress.

Four potential methods of funding EPA indemnification are:

- Reprogramming of Agency funds to meet indemnities as they occur;
- Submitting a supplemental budget request, following use of Agency funds previously appropriated for other purposes;
- Contingency budgeting for estimated indemnities with funds held in reserve until needed; or
- Requesting case-by-case appropriations by Congress in EPA's annual budget, with payment deferred until funds are actually appropriated.

However, none of these options is free from significant practical or policy problems and, by default, a fifth option of payments from the Court of Claims Judgment Fund has occurred.

Because it had no funds available, and no process for obtaining them, EPA refused the Silvex claims, while acknowledging their validity. The claimants therefore sued the government in the Court of Claims. While the settlement of several of these claims has provided for payment from the Court of Claims Judgment Fund, some question remains whether EPA will be required to reimburse the Fund.

(3) Silvex

On February 28, 1979, the registrations of many products containing 2,4,5-T and Silvex were suspended by emergency order (and notice of intent to cancel) because of imminent hazards deemed so serious that suspension could not await a hearing.[24] This emergency suspension was effective immediately. The Silvex suspension covered products registered for forestry, rights-of-way, pasture, home and garden, commercial/ornamental and turf, and aquatic weed control uses. (Not all of the uses of Silvex were suspended. It may still be used for rice, range, sugar cane, orchards, and non-crop sites.) Silvex

was considered an imminent threat because new information on human reproductive and oncongenic risks was made public just before the spring growing season, and EPA concluded that it had to act quickly if it was to prevent the pesticide from being sold or used that season.

Led by Chevron Chemical Company, one of the largest manufacturers of Silvex products, 19 registrants subsequently entered into agreements with EPA which, in effect, cancelled the registrations of the home-and-garden use Silvex pesticides. The first of these agreements was signed in May 1979. The agreements stipulated that it was infeasible to relabel, recover, recycle, reprocess, or otherwise use the Silvex pesticides for any of the non-suspended uses. This enabled claimants to show economic loss required by § 15(a)(3). It precluded the government from arguing that since all uses were not suspended, a market remained, and the loss would only be the cost of relabeling for resale.

Other 2,4,5-T and Silvex registrants, however, opposed cancellation and requested a hearing. Those proceedings are currently recessed to allow for settlement talks.

The agreements that were reached stipulated that the statutory criteria for indemnification under § 15 had been met, established procedures for processing claims and formulas for calculating the value of the pesticides, and confirmed EPA's statutory obligation to provide for disposal of the pesticides. Under the agreements, all claims of the registrants, distributors and retailers owning cancelled products were funneled through each registrant and presented to EPA in a package. Distributors and retailers were asked to fill out claim affidavits and to give a power of attorney to the registrants to make their claims to EPA.

EPA relied heavily on the registrants in processing claims, particularly Chevron, which had approximately 11,000 distributors and retailers of lawn and garden pesticides. Chevron mailed a notice to every dealer carrying Chevron agriculture products, telling them to return their stocks of Silvex home and garden products to the distributor. The distributors gave cash payments or credits to the dealers. The distributors then delivered all they had collected to Chevron warehouses across the country. Upon delivery, distributors were given credits on their accounts with Chevron.

Apparently, the registrants had sought the agreements with EPA to speed processing of their indemnification claims, and in the belief that indemnification would ultimately be paid, even though no funds for payment were appropriated. They also apparently wanted to be able to empty their warehouses of the pesticides and to get EPA to dispose of them quickly. They agreed to collect claims and assist in processing them, apparently out of concern with protecting their business relations with distributors and retailers.

Pursuant to the agreements and to § 19 of FIFRA, EPA became responsible for disposing of a very large percentage of the home-and-garden Silvex on the market. EPA has already disposed of the 39 million pounds of solid pesticide in a hazardous waste landfill in Alabama. Approximately 900,000 gallons of liquid pesticide should be destroyed soon.[25]

EPA finished processing the first indemnification claims by early 1980 and has now reviewed the claims presented by 15 registrants. Even with the help of the major registrants, it has been a lengthy and difficult job. Using the cost formula in the agreements, EPA has found approximately $18.2 million in indemnification claims for Silvex products to be "appropriate." The largest portion of this amount is the $12.8 million of appropriate claims in the package submitted by Chevron.

After final review of each claims package, EPA sent the registrant a letter indicating the amount that the Agency considered appropriate. However, the letters also stated that the Agency lacked funds to pay the claim and did not expect to receive such funds.

Several registrants subsequently filed suit in the Court of Claims, seeking payment from the Court of Claims Judgment Fund. The Department of Justice, representing the government, has recently settled seven of the larger claims, for a total of $18.7 million (the remaining claims total less than $200,000). Except for the Ag-Way claim, which was settled for approximately $500,000 when EPA had approved only about $375,000, the Justice Department's settlements have been for amounts roughly equal to those found appropriate by EPA.

Section 15 does not define the "cost" for which owners are to be indemnified. The Justice Department questioned the pesticide cost-calculation formula contained in the negotiated agreements. These formula specified that the cost to a retailer or distributor was 100% of the invoice price plus 15% for handling, and the cost to the manufacturer was 70% of the cost to the dealer. The position of the Justice Department was that actual cost data was required for a calculation of indemnification amounts and that the formula (particularly the 15% allowance for handling) was not consistent with the language of § 15. However, an FBI investigation of actual cost data revealed that in nearly every circumstance the formula in the agreements was too low and the registrants' claim totals, which sometimes exceeded EPA's approved figure, were also too low. Therefore, in each of the seven settled claims, the Justice Department agreed to the amount claimed.

e. Evaluation of § 15

There has not been sufficient activity under FIFRA § 15 to evaluate its effectiveness conclusively. However, a start can be made

by comparing the actual operation of the program to the assumptions, goals, and arguments made before enactment. In the ten years since the debate, some of the arguments have proven insubstantial, while others have taken on new weight.

(1) Arguments in Support of Indemnification

(a) Pesticide manufacturers, dealers, and owners of pesticides rely in good faith on the government's pesticide registration

Arguments were made during the legislative debate on § 15 that indemnification would be necessary to protect manufacturers, dealers, and farmers who rely on the validity of a pesticide's registration, if EPA changed its mind and canceled a registration.[26] This argument rests on the premise that an innocent party has relied, in good faith and to its detriment on the registration.

The pesticide manufacturers apparently hoped to be able to rely on the registration and tried to insert into the 1972 FIFRA amendments a provision that would use the registration to shield them from third-party liability. They suceeded only in obtaining the very conditional language of § 3(f)(2) that says "provided that as long as no cancellation proceedings are in effect, registration of a pesticide shall be prima facie evidence that the pesticide, its labeling and packaging comply with registration provisions of the Act."

In reality, there is little factual basis for relying on the registration of the average pesticide as conclusive proof of its safety. Most current pesticides were either "grandfathered" in from previous pesticide laws or involve state, rather than federal, registration.[27] Many registrations are granted by the state on the basis of limited test data, with nominal review by EPA. Some experimental use permits are not registrations.

Moreover, most pesticide manufacturers do not in fact appear to rely upon the continuation of registration. The registration section (§ 3(f)) disclaims reliance. The statutory requirements applied to most existing pesticides have been relatively lax.[28] Moreover, in making its registration determination, EPA relies almost exclusively upon data submitted by the registration applicant. Thus, the pesticide manufacturer is typically relying upon its own data, rather than that of the government, when making financial decisions concerning pesticide production and inventory.

Nor is there a basis for relying on the indefinite continuation of the registration. The structure of the Act makes clear the intention of Congress that a pesticide may be cancelled whenever new information shows that it may be an unreasonable risk.[29]

Farmers may more reasonably be expected to rely on EPA's registration of a pesticide. However, farmers have a problem after a deregistration that is bigger than the loss of inventory -- finding a comparably priced substitute that is equally efficacious. Sometimes this is not immediately possible, and the farmer has to pay more for a substitute that results in a lower yield, at least for a couple of years.[30] Although these costs are not addressed by the current indemnification program, they are taken into account when the Agency makes cancellation decisions. FIFRA § 6(b) requires the Administrator to consider restricting uses as an alternative to cancellation and to take into account the ". . . impact of such final action on production and prices of agricultural commodities, retail food prices, and otherwise on the agricultural economy. . . ."

Indemnifying for all farmers' losses in the event of an emergency suspension and cancellation may be very expensive.[31] Furthermore, although the loss is not entirely speculative, it would be very difficult in practice to measure and verify it. One could not predict transition costs, production drops and the time needed for pesticide manufacturers to develop and market a lower priced substitute. Thus, it might be possible to make payments only some years after the original pesticide cancellation when the costs were known. Even then, it would always be difficult to distinguish the production yield decrease due to other factors, such as weather, from the decrease due solely to the different pesticide.

Under these circumstances it might be more helpful to the farmers to prevent or limit the loss by providing for a more orderly transition period and stimulating the development of alternative pesticides. By giving the industry some advance warning of the cancellation, allowing time to increase production of existing substitutes and accelerate the development of others, the losses are minimized. This is the procedure for ordinary, rather than emergency, cancellations -- the way most pesticides are de-registered.

There was no problem of agricultural transition after the Silvex cancellations because only home and garden uses were cancelled. Because some other uses were not suspended, and the emergency suspension of the remainder was challenged by registrants, cancellation has not gone into effect. The anomaly of the first major indemnification case excluding farmers makes it difficult to base any conclusions concerning the operation of § 15 on it.

(b) Banning of a Pesticide to Benefit the Public Constitutes a Taking of Property for Which the Government Should Pay Compensation

Some asserted that the sudden banning of a pesticide, when accompanied by the requirement that the pesticide be turned over to EPA for disposal, constitutes a taking of property for which the

government should provide compensation.[32] A converse formulation of this argument is that the deregistration of an unsafe pesticide confers a benefit on the public that should be paid for by the public.[33] Important to this argument is the fact that § 15's compensation of all owners of pesticides makes this remedy very similar in form to compensation for a taking of property.

The problem with the taking argument is that the seizure of contraband or items that are hazardous to public health does not legally qualify for compensation under the Fifth Amendment.[34] Nor is the government legally estopped by its registration of the pesticide from asserting that the pesticide is unsafe.[35] By registering the pesticide, the government has clearly not stated that it believes the pesticide to be safe forever or that no evidence of potential danger will be found in the future. Rather, the pesticide registration indicates only that, at the time of the registration, the government did not have sufficient evidence to refuse registration.

(c) Indemnification is needed to promote new pesticide research and production

Arguments were strenuously made during the legislative debate on § 15 that, without financial protection from the possibility of pesticide bans, chemical companies would cease to undertake research and development of new pesticides.[36] A less extreme argument was also made that substantial financial losses due to pesticide cancellations would impede research and development.[37] In fact, however, no evidence has been found either that the availablity of indemnification stimulates new pesticide research and development or that pesticide companies would reduce their research and development efforts if indemnification were unavailable. Rather, it appears that the manufacturers view the possibility of deregistration of any particular pesticide as remote. The possibility that deregistration will involve a pesticide during the first five or ten years of its useful life, before it "breaks even" is even lower. Thus, it does not seem to affect research decisions.

The business of pesticides is so volatile that the manufacturers must constantly innovate in order to stay in business. Its high profit margins indicate the risks of the business, but also provide an incentive to do research necessary to produce new products. Furthermore, the indemnification under § 15 is only for the inventory on hand when a deregistration occurs. It does not necessarily compensate the owner for the cost of the putting the chemical on the market.

One analysis of the effect of paying for lost inventory on a pesticide's net present value shows that such payments have only a small impact compared to the effect of the lost sales.[38] Paying indemnification for lost inventory in the event of cancellation increases the net present value of a pesticide by less than one

percent.[39] This amount will probably not be sufficient to influence decision-making for most companies.[40] Thus, loss of inventory is a crude measure which not only fails to reflect a registrant's actual losses from a cancellation, but also may fail to provide the incentives that Congress desired.

Other indemnification formula could be devised to have a greater impact on research. One possibility would be to pay manufacturers for their total investment cost, less net revenue, with respect to a cancelled pesticide. This formula is based on the fact that a relatively new chemical, not long on the market, would not yet have earned back its cost of research and development. Promising to pay for investment cost less net revenues would at least guarantee the manufacturer that its research costs would not be lost. This presumably would encourage manufacturers to continue to spend money to develop new pesticides.

There would be problems with this approach, however. If the chemical has been on the market for some time, total sales will be greater than investment. A judgment would have to be made whether the owner should be compensated for the inventory under those circumstances. If the exclusive concern of indemnification is with covering research and development costs, then indemnities should not be paid for such inventory losses. Furthermore, the cost of paying for development costs is likely to be much higher than the cost of inventory. Also, it is difficult to justify paying for research and development only for some cancellations and not others. Inventory indemnification can be justified on the basis of the emergency suspension.

A much more direct impact is exerted by the expenditures of the federal government to support pesticide research and development. The Department of Agriculture and experiment stations spent $330 million in 1978, approximately matching the amount of private funds spent. This federally funded research even results in industry-owned patents.[41]

(d) Indemnification encourages EPA to be more careful with its pesticide registrations

A minor point raised during the § 15 debate was that requiring indemnification for deregistration would prompt the government to be more careful with the original registration.[42]

The desired feedback mechanism probably cannot work because the registration process is so far removed from possible indemnification. Of course the agency would not issue a registration if it were contemplating revoking it. Deregistration and indemnification occur many years later. More careful application of statutory pesticide registration requirements at the outset would not have prevented the problems of new information years later.

However, there is some evidence that the current lengthy review process already discourages some potential product manufacturers from pursuing the registration process, even though, since 1972 EPA has actually denied registration for only five active ingredients.[43]

(e) Indemnification provides an incentive to comply with deregistered pesticide disposal regulations

One Congressman argued in the § 15 debate that indemnification would increase compliance with EPA's regulations governing disposal of cancelled pesticides, because owners would wish to comply with these regulations in order to collect their indemnities.[44]

In order for indemnification to serve as an effective incentive to assure proper disposal, pesticide owners must know that indemnification is available. While indemnity payments have been used as an effective incentive when the federal government has sought to destroy diseased livestock, indemnification has not actually been used by EPA in a similar way under § 15. Indeed, when EPA sends out stop-sale orders to registrants and dealers of suspended and potentially cancelled pesticides, no mention is made of the possible availability of indemnification. Nevertheless, pesticide registrants may have viewed § 15 as an incentive to agree to cancellation of their registrations, and the agreements signed with EPA did establish procedures for retrival and transfer of Silvex to the government in addition to procedures for filing indemnification claims.

Pesticide manufacturers are generally large companies, well known to the government, and it is relatively easy to monitor their compliance with the deregistration. Processors, dealers, and users are much more numerous, small and scattered. Since the users are even more difficult to identify, it is difficult to notify them of cancellation. Indemnification theoretically provides a more efficient means of passing notice down the chain of market transactions. A requirement that manufacturers repurchase stocks of suspended and cancelled pesticides would accomplish some of the same purposes achieved by indemnification. The third parties who had relied on the continued use of the pesticide would be compensated. They would have an incentive, comparable to the present one, to dispose of a dangerous substance properly. However, what would be lost in such a scheme would be the motivation of the manufacturer to do all that it can, rather than merely what it must do to achieve minimal compliance with a repurchase requirement. The substantial dependence of the Silvex disposal and claims processing operation on the cooperation and good will of the registrant illustrates the importance of maintaining their motivation for participation.

(f) Indemnification makes it easier for EPA to decide in favor of an emergency suspension because adverse economic impacts will be partially covered by indemnification

The idea behind this contention is that EPA must consider potential adverse economic impacts when it is making a suspension decision, and indemnification might lessen those adverse economic impacts.

The problem with this argument is that it assumes a pool of available funds from which EPA can make indemnity payments. Such a pool of funds does not exist. The Court of Claims Judgment Fund might serve as such a pool, but its availability to respond to repeated § 15 claims is certainly open to question. Moreover, consideration of indemnification in making suspension decisions appears to be contrary to the thinking of Congress because the Agency is directed to study and take into account only the economic impacts on the agricultural sector, not on pesticide manufacturers.

(2) Arguments Against Indemnification

(a) Indemnification can discourage suspension decisions by EPA

This argument is based upon the idea that EPA may hesitate to ban deadly and hazardous pesticides if it knows that such a decision may cost the taxpayers millions of dollars, and especially if indemnity funds must come from EPA's budget.

Although the specter of a "chilling effect" on EPA has been raised as a serious problem, the prospect of indemnification does not appear to have been an important factor in previous suspension and cancellation decisions. Rather, decisions have thus far been made on their scientific and policy merits. Clearly, however, the possibility that EPA might have to reimburse the Court of Claims Judgment Fund for millions of dollars in Silvex indemnification claims could affect future suspension decisions. Moreover, even if the prospect of having to pay indemnification does not deter EPA from suspending and cancelling a pesticide, the Agency might tend to reduce any margin of safety by permitting existing stocks of pesticides to be used or by allowing limited use of the pesticide so as to avoid the need for indemnification.

(b) Indemnification reduces industry incentives for safety

During the legislative debate on § 15, the point was made that indemnification would curb incentives to the chemical industry to test their pesticides.[45] Because the government pays for

losses that the manufacturer suffers because of a § 15 pesticide cancellation, but pays nothing for stocks produced after the manufacturer has knowledge disclosing the pesticide's hazard, § 15 arguably discourages any testing beyond what is minimally necessary for registration.

There is, as yet, no clear evidence concerning whether indemnification actually reduces industry safety activity. Nevertheless, the possibility of indemnification theoretically provides an incentive to pesticide registrants to wait for government action, rather than to move voluntarily to withdraw a pesticide from the marketplace and thereby lose the opportunity for indemnities.

On the other hand, there is ample evidence that at least some pesticide manufacturers conduct safety research more extensive than is mandated by EPA. Often a manufacturer and its individual professional employees will desire to conduct such research in order to protect their business or scientific reputations.

(c) Indemnification for pesticides is unduly preferential or will prompt a flood of such indemnification schemes

The contention here is that there is no reason to treat pesticide manufacturers differently from drug manufacturers or other regulated parties that do not receive indemnification if their products are banned.[46] An alternative formulation of this argument is that the enactment of pesticide indemnification sets a precedent for allowing indemnification of other dangerous products that are banned from the marketplace.

As previously noted, there is a long history of government indemnities to farmers when their products have been destroyed or determined to be dangerous to health. Pesticide indemnification seems merely to continue this history, but only a tiny proportion of indemnities actually paid under § 15 have gone to farmers. (Probably no more than one or two farmers have been indemnified ever under § 15.) Indemnification obviously benefits the pesticide manufacturers and dealers, and gives them an advantage over drug manufacturers, for example, who do not receive indemnification if their products lose FDA approval.

Since the enactment of § 15, there has been no flood of new indemnification programs designed to cover the losses of manufacturers or dealers whose products prove to be dangerous and must be removed from the marketplace.[47] Thus, there is reason to believe that § 15 is not widely regarded as a precedent for indemnification of such parties.

(d) For reasons of economic efficiency, the risk of a pesticide ban should be borne by pesticide manufacturers and sellers, rather than by the government

This argument makes the point that the possibility of cancellation based on new scientific evidence of hazard is an ordinary business risk which should properly be internalized by the manufacturer or seller of pesticides. Indemnification instead allows producers to gain the benefits and profits of the pesticide, while some of their risk is underwritten by the government.

Indeed, the substantial profit margins in the pesticide industry appear to reflect this and other risks. The possibility of cancellation is only one of the risks of the pesticide industry along with the risk of product liability, the risk that insects will develop immunities to a particular pesticide, and the risk that a competitor will develop a superior product. All are routinely absorbed by the industry. If the risk is reduced by the government, the pesticide manufacturers would enjoy a windfall profit in the form of risk premiums without the risk, not an efficient allocation of resources.

f. Conclusion

The indemnification provision has not been used often enough to draw any specific conclusions about its effect on the behavior of the agency or of the pesticide industry. In its present form, § 15 operates more like individual payments made after a loss and after an arduous process of pursuing the claim than like a more automatic program that can be counted on before a loss occurs. If it is desired that either the agency or the industry should take indemnification into account in their planning, some stable and reliable financing mechanism will have to be instituted.

The other conclusion that can be made is that the presently constituted indemnity section does not reach farmers, who have received almost no payments so far. Furthermore, inventory loss is not a problem for them because, even if farmers were sent stop use orders, they hold so little inventory that it would not be worth their while to file a complicated and lengthy procedure to obtain reimbursement. Their real problem is with the disruption caused by losing the pesticide. If present protections are judged to be insufficient to help them make a transition, some adjustment of the indemnification provision would be necessary.

2. Extension of FIFRA § 15 to New Situations

a. Application to TSCA

The Toxic Substances Control Act is the first place to consider an extension of a FIFRA-like indemnification program. The study

mandate grew out of a disagreement over whether there should be indemnification under TSCA. There are also similarities in the laws that make the question of extension to TSCA natural. TSCA is the only other statute administered by EPA that significantly regulates particular products rather than processes or wastes. EPA has the authority under both laws to ban a product, including the existing stocks. An analysis of the cost of a FIFRA-like indemnification program under TSCA indicates that its cost would be in the same range as that of FIFRA § 15.[48] However, the transplant appears to be unnecessary because there are significant differences both in the statutes and in the substantive area that each regulates.

(1) Statutory Differences Between TSCA and FIFRA

TSCA is primarily an information development, collection and coordination apparatus, rather than a comprehensive regulation of hazardous chemicals.[49] It differs from FIFRA in many respects. One important difference is that EPA does not register new chemicals under TSCA. There is a requirement that manufacturers give EPA a 90 day notice before beginning commercial production of a new chemical. However, this is just a notification, and no test information need accompany the notice. If the Agency finds reason to suspect a chemical, it may order the manufacturer to develop additional information before beginning production. Such orders, under § 5(e), have only been issued on nine of the 1,450 chemicals reviewed since the program began. (Of course, not even this limited review was available for the 50,000 chemicals introduced before TSCA's pre-market review was implemented.) There is no factual or legal ground for a company to rely on the Agency's continued approval of any chemical that passes through the premanufacturing notification review process. The Act specifically provides for several kinds of follow-up regulation of new and existing chemicals if new information, new uses, or increased production volume signal reasons for concern.

Another important difference between FIFRA and TSCA is the procedure for emergency bans. Under FIFRA, emergency suspensions are Agency orders. They are reviewable by court on an expedited basis, but only on grounds of whether there is an imminent hazard and whether the suspension order was arbitrary or capricious. In contrast, perhaps in an effort to prevent some of the mistakes that can result from emergency action, Congress has given the decision to an independent decision-maker. Under TSCA, if EPA wants to take action against an existing chemical that is causing an imminent hazard, it must petition a federal district court for seizure or relief. The hearing provides an opportunity for regulated parties to challenge the action and its factual and legal basis. The court may order notification of purchasers, recall, repurchase, or replacement.50

A third important difference in TSCA is the inclusion of authority to require recalls or repurchases. If it were necessary to

remove a chemical from the market, some kind of recall or repurchase scheme probably would be very helpful. The chemical market is a very complex one, and chemicals are most often used as intermediates in the production of other chemicals. This sometimes happens within one plant, even within one continuous and enclosed process. Some chemicals are produced as by-products of others. The large volume chemicals typically have many uses, and thus many types of customers with different purposes. It would be difficult for a mandatory enforcement program to ferret out a chemical that follows a convoluted path through the marketplace. A repurchase scheme aids in identifying and notifying the proper people by tracing them through market transactions. The success of Chevron in obtaining an estimated 90% of the Silvex products held by its distributors and retailers is due, in part, to the organization of the voluntary repurchasing effort, as well as to the prompt payment of cash or credit for the goods.

The comprehensive authority of TSCA, allowing regulation of chemicals from manufacture through processing and use or disposal, would allow a broad enough repurchase order to avoid the problems that occurred in the Tris situation.[51] The authority of TSCA can be used to spread the cost of any ban among all of those involved in manufacture and distribution, rather than concentrating on those who may not be able to pay.

But repurchase requirements alone might not be enough to produce this speedy and efficient result. Conversely, it probably would not be necessary to indemnify for the full cost of the inventory in order to produce the necessary incentive. (The animal disease program, for example, gets good results with amounts below the replacement value of livestock because the rigorous enforcement also acts as an incentive.)

(2) Alternatives to Indemnification Under TSCA

Section 2 of TSCA declares that the development of adequate data on the health and environmental effects should be the responsibility of the chemical manufacturers and processors. Nevertheless, Congress provided many cost limiting and cost sharing measures; illustrating the alternatives to indemnification discussed in Appendix B. For example, § 8 exempts small businesses from many of the reporting and recordkeeping requirements. Section 9 contains elaborate consultation procedures to prevent conflicting or overlapping regulations of chemicals. Nearly every section provides expanded opportunities for participation and comment before agency action (including the emergency action under § 7). Section 6 mandates a balance of the risks of a chemical against the costs of various regulatory alternatives, and requires the Administrator to choose the least costly alternative. The cost of testing existing chemicals can be shared among all the importers, manufacturers and processors of the chemical.

(3) Impeding Statutory Incentives for Self-Regulation

The existence of TSCA, even in advance of full implementation, has encouraged and supported various voluntary and private efforts to reduce the risk of chemicals to health and the environment. There is evidence that many chemical manufacturers do test new chemicals, even though the premanufacturing notice does not require any tests. A successful effort is being made to negotiate with the manufacturers of chemicals listed by the Interagency Test Committee to arrange voluntary testing of existing chemicals, without promulgation of a formal test rule. Some companies are reporting the voluntary remedial measures taken in response to problems reported to the Agency under § 8(e). There are advantages for both the chemical industry and the Agency in making such arrangements. The chemical companies have more control over their response to the chemical risk, and in some cases are able to restrict the amount of confidential information given to the Agency. The industry does not have to spend as much time and money commenting on regulations. Advantages to the Agency to include decreased cost, speedier results, and increased cooperation of the regulated industry.

This delicate web of agreements, arrangements, and incentives could be disrupted by the counter-incentive of an indemnification program. The possibility of more costly compliance with regulations and of possible adverse publicity is presently an incentive for the companies to detect and begin to correct problems with their products. Although indemnification for inventory would not fully compensate a manufacturer for the loss associated with a ban, it would be an incentive to wait for the Agency to take action rather than to respond immediately to the perceived problem. The impact of an indemnification program is hard to gauge, but its direction may run counter to the incentives in the statute and the present method of its implementation.

(4) Frequency of Bans Under TSCA

One of the primary reasons for setting up an indemnification program is to handle a large volume of indemnification payments. There are several differences between the chemicals regulated under TSCA and those regulated under FIFRA which may lead to fewer emergency bans under TSCA. Pesticides are designed to be dangerous to certain forms of life; they are called "economic poisons." The average chemical under the broad jurisdication of TSCA is not harmful either to human health or the environment. Whereas non-pesticide chemicals have a multitude of uses and vast differences in the exposure to people, most pesticides are used on the food chain. Anything in the food chain has a measurable, if attenuated, exposure link to people. In addition, the exposure to the environment is much greater with pesticides since they are used in fields, forests, along roads and in homes.

In contrast, most industrial chemicals are converted within a factory into a stable end-use product. Thus, the exposure is generally only to workers within the factory, and not to the customers or the general environment. The considerations of toxicity and exposure are the important ones in determining whether and how quickly to regulate. The lower average toxicity and exposure of industrial chemicals indicates less frequent need for emergency bans.

Even when a chemical does need to be regulated under TSCA, it is more likely to be a regulation of some uses, rather than a total ban on all uses. Industrial chemicals often have a wide variety of uses. Some of them may cause much more exposure or may be more harmful than others. Section 6 requires the Administrator to regulate by using the least burdensome means that will adequately protect against the risk. Thus, it is likely that the Administrator would regulate some uses and not others, leaving a continued market for the chemical. This was true, for example, of the only ban to date, that of CFC aerosals. Many other uses of CFC's, in refrigeration, air conditioning, sterilization, and plastic formation have not been regulated at all. Aerosals were considered to cause the most immediate threat to the ozone layer, and to be the least necessary to the economy.

(5) Equitable Basis for Indemnification Under TSCA

Many operational errors possible under TSCA would be the basis for a cause of action under the FTCA. A mistake like the one in the Mizokami Brothers case, that could not be the basis for a FTCA suit, seems unlikely to occur under TSCA. The chances for error are reduced by the fact that the Agency does not itself test chemicals, as the FDA does food. Furthermore, EPA cannot seize a chemical without a hearing. If there had been a hearing before the seizure in the Mizokami case, it seems likely that the hearing officer would have at least stayed the order until another test could been conducted. Most of the Mizokami's loss was spinach that would not keep for six weeks while the parties argued over it. Chemicals on the other hand, probably could survive a dispute without loss of intrinsic value (although there might be associated losses such as lost business opportunities).

It is also unlikely that there will be a problem like the FDA announcement that eliminated the market for cranberries in 1959 because it did not distinguish between contaminated cranberries and untainted ones. The strength of the public reaction to that announcement apparently took everyone by surprise. Both Congress and the agencies are now more careful in assigning and using the power of publicity. EPA may only add the name of a chemical which it suspects may present an unreasonable risk to TSCA's "risk list," § 5(b)(4), after a procedure more elaborate than that required for most rulemakings.

There is one instance in which Congress has considered indemnification for consequences of a potential action under TSCA. In

1980, Congress authorized a grant program to cover the costs of detecting and correcting problems of asbestos insulation in school buildings. The aid was for school districts that had to correct an environmental problem they had not created. The legislation was passed before EPA had proposed rules requiring inspection of schools, but the funding has never been provided. In the meantime, many states have established their own grant programs, or some other form of assistance for the school districts.

(6) Conclusion on TSCA

There appears to be no reason to transfer an indemnity program like that in FIFRA § 15 to TSCA. There is no evidence of the kind of losses envisioned by the drafters of § 15 due in part to the differences between the statutes and their subject matter. TSCA contains many other methods of preventing, limiting, and sharing the costs of regulation, and it does not appear that there will be frequent or complete bans. Experience in implementing TSCA is limited, but so far there are no patterns of inequities that would justify establishment of an indemnification program.

b. Product Recalls

(1) Description

The other logical extension of § 15 is to product recalls. However, there are very few such recalls in the EPA-administered statutes. As mentioned, TSCA contains recall authority, but it has not yet been used. The only significant recall provision that has been used by EPA is that in § 207(c) of the Clean Air Act.

Automobiles may be recalled for adjustment if they do not meet the applicable emission limitations throughout their useful life, when properly maintained. The recall may occur up to five years or 50,000 miles after their initial sale. Of the 223 recalls since 1973, 163 have been voluntarily undertaken, without any action by EPA, when the manufacturer discovered a defect. EPA has issued formal recall orders only 21 times, two of them contested. The remainder were "influenced recalls," in which EPA discovered a problem and began working on a recall order, but the manufacturer voluntarily recalled before it was issued.

The cost per car of recall and repairs has been $15-20 on average. However, recalls may apply to millions of cars, and the total cost to the manufacturer can be quite large. It is estimated that about 50% of the cars in the categories that are recalled are actually brought in for repair. One reason for indemnification in this situation might be to increase the participation rate. The situation is a classic one in which the cost (or annoyance to the owner) is not balanced by a benefit to the individual. The benefits

are derived only from the participation of a significant number of others. It is possible that, if the manufacturers were indemnified for their costs, they would change their approach to notification or otherwise make a greater effort to increase participation.

(2) Evaluation

There does not appear to be a high probability of surprise or agency error in the recall of automobiles. The automobile manufacturers are notified whenever EPA test their cars, and are invited to attend as observers. Thus, they are aware of the data on which EPA would base a recall from the beginning. Frequently they conduct independent tests to confirm it. The statistics suggest that EPA is usually correct, because the automobile makers often take voluntary action at considerable expense, rather than waiting for EPA to order it. When an order is contested, it can be stayed pending the outcome of the suit. Therefore, the manufacturer does not have to incur the expense of complying with what might be a mistaken order, unlike the case of emergency action to curtail production during the Birmingham air pollution alert.[52]

It is not clear, of course, that indemnifying the manufacturer will, in fact, increase participation by car owners. There is no out-of-pocket cost to the owner in a recall, just the inconvenience of being without a car. The indemnification cannot change the fact that there is no individual benefit to the owner. Unless the repair of the emissions system makes the car run better or more efficiently, the incentive to the individual is only that he is contributing to the public health. An alternative way to increase participation would be institution of mandatory inspection and maintenance programs. The threat of failing inspection may be a better incentive for all owners.

(3) Conclusion on Recalls

Indemnification does not appear to be an appropriate adjunct to the automobile recall program. Recalls are generally not emergencies. There is ample notice, opportunity to inspect data and confirm it, and to contest the order before compliance. The procedure also reduces the possibility of error on the part of the Agency. Indemnification would probably not be an effective incentive to increase the participation of automobile owners.

C. INDEMNIFICATION UNDER § 202(a)(3) OF THE CLEAN WATER ACT

1. The Existing Program

a. Introduction

Indemnification under § 202(a)(3) of the Clean Water Act of 1977,[53] as amended in 1981,[54] was designed, in part, as an incentive to encourage the development of innovative and alternative wastewater treatment technologies.[55] The provision was originally drafted in Conference in 1977 to supplement the incentives created by § 202(a)(2), which provides federal grant money for up to 85% of the cost of treatment plants, or unit process and techniques thereof, that employ innovative or alternative technology, rather than the 75% (or up to 55% beginning in FY 1985) normally provided.[56] Congressional debate on § 202(a)(3) characterized it as an "insurance policy" covering the risk of failure of such technology.[57]

Under § 202(a)(3), EPA is given discretion to fund 100% of the costs of modification or replacement of an innovative or alternative facility that fails to meet performance specifications and has significantly increased capital, operating or maintenance expenditures. An additional statutory prerequisite is that the plant failure not be attributable to negligence. EPA's May 1982 interim final rule under the section also requires that the failure occur within a two-year period following initial operation of the project.[58]

Section 202(a)(3) has only been utilized in one or two instances to provide replacement or modification funds for treatment works failure.[59] However, it has been used to encourage grantees to use innovative or alternative technology.

b. Statutory Language and Regulations

Section 202(a)(3) of the Clean Water Act of 1977, 33 U.S.C. § 1282(a)(3), provides:

> "(3) In addition to any grant made pursuant to paragraph (2) of this subsection, the Administrator is authorized to make a grant to fund all of the costs of the modification or replacement of any facilities constructed with a grant made pursuant to paragraph (2) if the Administrator finds that such facilities have not met design performance specifications unless such failure is attributable to negligence on the part of any person and if such failure has significantly increased capital or operating and maintenance expenditures.

Regulatory implementation of § 202(a)(3) is codified at 40 C.F.R. § 35.2032(c), which provides:

> (c) Modification or replacement of innovative and alternative projects. The Regional Administrator may award grant asistance to fund 100 percent of the allowable costs of the modification or replacement of any project funded with increased grant funding in accordance with paragraph (a) of this section if he determines that:
>
> (1) The innovative or alternative elements of the project have caused the project or significant elements of the complete waste treatment system of which the project is part to fail to meet project performance standards;
>
> (2) The failure has significantly increased operation and maintenance expenditures for the project or the complete waste treatment system of which the project is part; or requires significant additional capital expenditures for corrective action;
>
> (3) The failure has occurred prior to two years after initiation of operation of the project; and
>
> (4) The failure is not attributable to negligence on the part of any person.

c. Legislative History of § 202(a)(3)

Section 202(a)(3) did not appear in either the original House or Senate versions of the 1977 Water Act, but was added later in Conference.[60] The subsequent House debate on the Conference Report characterized the provision as an "insurance policy" designed to cover the risks created by forcing technology and to provide an incentive for the use of innovative or alternative technology in wastewater treatment works.[61] It was enacted in order to facilitate achievement of the benefits of the new technology, despite higher risks associated with it.

Congress in 1977 wanted to strengthen its encouragement of innovative and alternative wastewater treatment systems by adding financial incentives.[62] It was the sense of the Congress that there had been insufficient progress in response to the encouraging language of the 1972 Act. Apparently, the Conference Committee felt that it was also necessary to reinforce and supplement the incentive provided by the 10% additional federal grant money provided under § 202(a)(2).[63]

In enacting § 202(a)(2) and § 202(a)(3), Congress clearly intended that local governments be permitted and encouraged to use wastewater treatment technology involving higher risks of potential failure.

d. Implementation of § 202(a)(3)

(1) Regulations and Guidance Documents

As quoted above, an interim final rule implementing § 202(a)(3) was published May 12, 1982[64] as part of the new regulations made necessary by the December 29, 1981 enactment of the Municipal Wastewater Treatment Construction Grant Amendments of 1981.[65] The previous regulations were published on September 27, 1978.[66] The new (1982) interim rule provisions dealing with modification and replacement costs are essentially the same as the 1978 regulations, although the language has been changed for reasons of clarity and to conform with related changes in the grants program.

A May 1982 draft Guidance Document entitled "Construction Grants - 1982" contains procedures for awarding 100% modification or replacement grants. This document establishes the criteria for the exercise of EPA's discretion in funding replacement or modification costs. The overall document generally emphasizes an "ongoing effort to simplify and delegate the municipal construction grants program."

Section 15.2 at 110 states that:

> The key to implementation of I&A [Innovative & Alternative] projects is the acceptance of an acceptable level of risk by you that the I or A project may not work as predictably as a more conventional treatment process.
>
> For the purpose of 100 percent M/R [Modification/Replacement] funding, failure is defined as the inability of the entire system or significant components to meet design performance specifications, where such failure is due to higher risk elements of design as determined in the original design documents. M/R 100 percent funding is not available where the failure of an I or A system or component is covered by a warranty or caused by negligence.

The Guidance Document further explains that evaluation of requests for 100% modification or replacement grants will involve a determination that:

> (a) design performance specifications have not been met; (b) the failure results in a significant increase in O&M [Operation & Maintenance] costs and/or requires additional significant capital expenditures to correct the problem; and (c) the failure is not attributable to negligence on the part of any person. Negligence should be evaluated as the last item since the determination is based upon both technical analysis and legal findings.
>
> Initial screening will reject from further consideration projects which do not qualify for obvious reasons and, therefore, do not require a detailed evaluation. Such reasons may include expiration of the two-year period, hydraulic or organic overloading of the system or lack of an adequate O&M program.

(2) Potential Utilization

Section 202(a)(3) has only been in effect long enough to result in one or two limited instances of replacement or modification costs for any failed innovative or alternative systems.

The total facility cost for projects funded under § 202(a)(2) through September 30, 1981 is approximately $1 to $1.5 billion. This includes approximately 250 grant awards for innovative technology and 1000 for alternative technology.[67] Because EPA believes that § 202(a)(3) funds should be used to cover the risk of failures in unproven technology, it plans to focus on innovative uses of waste water technologies.

Thus, EPA's exposure for total replacement of innovative technology funded through September 30, 1981 may be between $200-$375 million, if replacement costs equal the corresponding initial expenditures. Of course, such exposure would require failure of all of the innovative facilities, as well as complete replacement at an amount equal to the original costs. It would also require that all of the failures occur within two years of the date of final inspection. Therefore, actual funding needs are likely to be far less than the maximum exposure of $375 million for these projects. If they are as high as 10% of this amount, total indemnification costs would be on the order of one percent of the total FY 1980 Construction Grants appropriation.[68]

With the 1981 legislation, Congress made the innovative/alternative program a continuing part of the Construction Grants program.[69] EPA's exposure for replacement or modification will therefore also continue.

e. Benefits and Problems of § 202(a)(3)

Although § 202(a)(3) was designed to assure the correction of a malfunctioning innovative or alternative wastewater treatment system, the provision also was enacted to stimulate the use of innovative or alternative technology. However, its practical effectiveness as an incentive is diminished by the lack of a specific funding reserve to assure the availability of money when it is needed.

Because of the lack of specific funding, the prospect of indemnification has been viewed with some skepticism by grantees. For most grantees who have decided to utilize innovative or alternative technology, the primary motivating factor seems to have been the availability of the 10% higher grant assistance under § 202(a)(2).[70] This incentive, however, provides a stimulus for somewhat different conduct than is promoted by § 202(a)(3). Section 202(a)(2) encourages grantees to adopt the minimum level of innovative and alternative technology that will qualify for the extra grant assistance. Section 202(a)(3), in contrast, is supposed to encourage true risk-taking by indemnifying against the risk of technological failure of innovative and alternative treatment works. The former incentive has outweighed and probably negated the second.

There also is the problem that a potential indemnitee under § 202(a)(3) must compete for funding priority with other potential grantees. In addition, payment of indemnification is entirely discretionary under the Act, which is thus vastly different from a legally binding commercial insurance policy with specific reserves and detailed criteria for payment.

f. Problems with § 202(a)(3) That Might be Remedied

As with § 15 of FIFRA, a possible deficiency with § 202(a)(3) is the absence of guaranteed funding. While a general funding mechanism exists, and replacement and modification grants are authorized to be paid out of overall grant funds for construction of treatment works, no money has actually been set aside to cover the contingency of a facility failure. In other words, there is no assurance that the grant program itself or any necessary funding under it will actually exist when failure occurs. Further, a grant application for replacement or modification funding will have to compete on the priority list against grant applications for original construction. Thus, rather than being an insurance policy that guarantees funding, § 202(a)(3) merely establishes eligibility if funding is available.

One way to correct this would be to set aside specific money in a government trust fund reserve, similar to a commercial insurance reserve, with use limited to replacement or modification funding. An alternative would be to use a portion of the grant money set aside for innovative technology to purchase a commercial insurance policy covering the risk of system failure. Either of these approaches would provide a greater incentive for use of innovative technology since potential grantees would be more assured of protection from the risk of failure due to the use of a new and unproven technology.

A second issue is that EPA has placed a two-year limitation on the time period during which an idemnifiable failure must occur. EPA concluded that a two-year period would provide ample operational experience with the treatment works, so that a failure due to the use of innovative technology would very likely occur, if at all, during this period. Nevertheless, certain types of failures might not become evident until after the two-year period -- for example, unrealized life-cycle cost savings -- and some type of allowance might be made for this contingency. Comments on EPA's regulation before it was promulgated indicated substantial support for longer time periods -- as long as ten years -- but this is not the only possible modification to alleviate this alleged problem.

g. Summary Evaluation of the Existing Program

Section 202(a)(3) is an example of the use of indemnification to support a government policy objective. This provision represents a type of indemnification somewhat similiar to private contractual indemnification.

Even though § 202(a)(3) has only had very limited application to pay indemnification for a failed innovative facility, it has been offered as an incentive to stimulate the use of new technology. However, its value as an incentive has been limited by the lack of guaranteed funding, and by the more important and partially countervailing incentive of innovative technology construction grants under § 202(a)(2).

2. Possible Modifications of the Existing Program

a. Expansion of Eligible Costs

The Municipal Wastewater Treatment Construction Grant Amendments of 1981[71] increased the number of technology innovations potentially eligible for funding under § 203(a)(2), and for "insurance" under § 202(a)(3), by making innovative or alternative unit processes and techniques eligible for the first time. Under the amendments, it is no longer necessary for innovative technology to comprise a substantial portion of the treatment works to be eligible for the indemnification of § 202(a)(3).

Further expansion of § 202 along these lines, however, now seems unworkable. Virtually all innovation is now covered within the program, and any further additions, therefore, would necessarily involve technology that is not innovative or alternative. While an argument could be made that all failures of wastewater treatment technology cause losses worthy of EPA reimbursement, the principal rationale for § 202(a)(3) remains the creation of an incentive to take the special risk of innovative or alternative technology. That incentive would be undermined if similar indemnification were available for treatment works, processes or techniques that are not innovative or alternative.

b. Expansion of Eligible Grant Recipients

In addition to its construction grants program, EPA has also conducted a much smaller demonstration grants program under §§ 104 and 105 of the Clean Water Act.[72] The grantees under this program were both municipal treatment works and parties seeking to demonstrate particular pollution-control technology which thereafter could be marketed to industrial sources. The function of the demonstration grants from their perspective was to reduce the costs of demonstrating a particular technology where these costs might otherwise interfere with the technology's ever reaching the market. From EPA's perspective, the function of demonstration grants was analogous to the function of § 202 grants: to promote innovation in water pollution control. Approximately $20-30 million was budgeted during 1967-70 for industrial demonstration projects and a similar amount for municipal demonstration projects.[73] However, the relatively low level of municipal participation in the demonstrations ultimately led to the enactment of § 202(a)(2), and § 104 funding for municipal demonstrations was curtailed thereafter.

The industrial demonstration grant program, as a practical matter, is limited to technological innovations that cannot possibly be utilized on a publicly-owned facility because, if such utilization is possible, § 202(a)(2) provides more favorable terms to the control device manufacturer. Since some publicly-owned facilities in fact treat a single firms's wastes almost inclusively, the opportunity may exist for industrial pollution control technologies to be demonstrated as innovative technology under § 202(a)(2). Thus, the scope of the demonstration grants program is limited by definition. Moreover, its practical scope is further limited by the virtual termination of funding in recent years.[74]

The possibility that the offer of indemnification might produce a practical incentive effect on technology innovation under the demonstration grants program is thus quite small. It is reduced further by the fact that it is not the risk of failures that seems to inhibit pollution control demonstrations, but rather the cost of the demonstrations themselves. Thus, in most instances, the barrier to

final marketing of the technology is effectively removed if the grant is made, and no further incentive for the manufacturer is needed. The industrial source similarly appears to have no special disincentive to participate because of the risk of failure since, in most circumstances, it is merely providing an effluent stream to be cleaned. At most, if the risk of failure proves to be a special disincentive in a peculiar circumstance, some individual remedial measure -- such as a special insurance policy -- might be called for. In fact, however, there have apparently never been any instances where indemnification was sought, or insurance against failure thought to be needed, under the clean water demonstration grants program.[75]

3. Possible Applications of the § 202(a)(3) Model In Other EPA Programs

a. Introduction

The Clean Water Act's innovative and alternative technology program in § 202 integrates a construction grants program with an indemnification provision applicable to publicly-owned wastewater treatment facilities. It defines desired behavior, not otherwise required to meet EPA's regulatory requirements (innovative and alternative technology). That behavior involves a risk that may deter some parties who would otherwise consider undertaking the behavior (risk of plant failure). If harm actually occurs, the indemnification program offers reimbursement for some of the damages incurred (the costs of retrofitting or replacing the wastewater treatment plant -- but not the damages from pollution caused by the failed plant). Thus, the incentive is created by the promise of reimbursement (sometimes made a specific "selling point" in negotiations over construction grants).

b. Candidate Indemnification Measures

(1) Clean Air Act

A fundamental difference exists between the Clean Water Act's § 202 incentive and the various innovative and alternative incentives under the Clean Air Act: there is no substantial government funding of the cost of compliance with the Clean Air Act. Rather, in virtually all instances, the Clean Air Act contemplates that the economic burden of the air program should be borne by regulated parties. This policy does not preclude reliance on indemnification incentives to foster desired behavior, but such incentives are logically more defensible where the judgment has been made to share at least some compliance costs.

In contrast to § 202 of the Clean Water Act, a primary incentive to use innovative and alternative technology to comply with Clean Air Act requirements is the possibility of obtaining a limited waiver of applicable emission limitations under § 111(j) (sources sub-

ject to New Source Performance Standards) and § 113(d) (existing sources subject to state implementation plan requirements). Such waivers eliminate some of the risk a source incurs by utilizing innovative rather than conventional technology, since the principal harms that result from the failure of such technology are pollution (the effects of which are largely external to the source and arguably sanctioned by the waiver) and regulatory violation costs (which are waived). Thus, the need for an indemnification incentive is not established.

Another mechanism, however, is somewhat more analogous to § 202. Under the Clean Air Act, EPA uses demonstration grants to stimulate innovative pollution control technology.[76] Typically, these demonstration projects are cost-shared, with the government picking up as much as half the cost, and the rest being financed by private parties, such as a vendor of a new control device whose demonstration costs are prohibitive without EPA's assistance.[77] However, unlike the innovative and alternative technology program under the Clean Water Act, and like the Clean Water Act industrial demonstration grants program, many of the ideas for demonstration funding come from such private parties. This differs from the "classic" incentive indemnification model, since EPA does not need to recruit private party's participation in the demonstration. On the other hand, EPA does instigate some demonstration projects on its own. Nevertheless, because funds for demonstrations depend on the existence of a technology to be demonstrated, the program depends more on initiatives outside EPA than does the § 202 program.

The potential benefits to vendors of a successful demonstration are clear. Thus, reduction of the cost of the demonstration, by means of an EPA grant, may be a sufficient incentive for such parties, especially if they can proceed without fear of liability. On the other hand, host sources may be less inclined to participate. To be sure, some of these sources may wish to help solve a current or potential pollution control problem, such as finding a more cost-effective method of control, a method by which a future emission limitation can be achieved or an appropriate control method for future facilities. This is quite different, however, from the public recipients of § 202 funds, for which compliance with EPA standards without EPA grant money is a practical impossibility.

The risks of participation are similar for the demonstration grants program as for § 202(a)(3). A demonstration of equipment that fails will often require that the equipment be replaced or converted to its original or some other configuration. Another potential risk of failure is that the demonstration technology may interfere with the production processes of the emission source. Both of these types of harms involve costs that are normally not a part of the original grant. On the other hand, they may be similar to other business risks, commonly absorbed by industry but quite impossible for public facility owners to accommodate.

In theory, these types of risks can be remedied through the use of indemnification and, in at least one demonstration grant circumstance, the need for indemnification was actually perceived. In an EPA demonstration contract with Combustion Engineering involving a demonstration project at Utah Power & Light Co., indemnification was regarded as essential by the host source before it would agree to participate in a project involving the alteration of boiler combustion with a new type of burner and related equipment.[78] In particular, the host source required indemnification against any damage to the boiler or loss of production due to the project. EPA did not agree to indemnify the host source directly, however, since it chose instead to include approximately $500,000 of contract funds for a privately-placed insurance policy to cover potential losses.[79]

(2) RCRA

Under RCRA, an analogy to the objectives of innovative, alternative or demonstration programs can be articulated, and the possible utilization of an indemnification incentive is thus suggested. Hazardous waste technology does involve risks, and those risks arguably contribute to the barrier to hazardous waste technology implementation. To the extent that they do, indemnification could plausibly be used to stimulate wider implementation. Such indemnification could not presently be attached to a grant from EPA, since no such grants are presently made. However, the lack of an existing administrative mechanism for effecting indemnification would not necessarily preclude the adoption of a new mechanism to achieve that purpose.

c. Rationale for Indemnification

Indemnification for failed innovative technology does not directly stimulate the use or testing of such technology. Instead, it serves to remove certain disincentives, such as the risk of potential failure of the innovative technology, the risk that the source's equipment will in some way be damaged, and the risk of environmental impairment. Thus, indemnification can function only to complement whatever primary incentives support the use of innovative technology. These incentives may be the prospect of commercial rewards to a manufacturer of a succcessfully tested new pollution control technology, the anticipated benefits to a source in meeting regulatory requirements, or the potential for a higher level of government grant funding than would be available for conventional technology. In other words, in order for indemnification to operate in this context there must be an underlying commercial, regulatory, or government funding incentive which supports the use of innovative technology in the first place.

The Clean Air Act demonstration project program offers a potential context for the use of indemnification, closely analogous to § 202(a)(3). The program involves activity which EPA desires to encourage in support of its Clean Air Act objectives (demonstration of

new technology). That activity may involve a risk that makes it uneconomical to the party who would otherwise engage in it (equipment failure, production interruption, environmental impairment liability). If that risk were to result in harm, significant costs might be imposed (for retrofit or replacement, for lost production or for the payment of damages). Thus, the promise of indemnification provides an incentive for participation (for example, by contractural arrangement).

The analogy to RCRA is less precise. EPA has not yet adopted a policy of directly fostering improved hazardous waste technology implementation, although the policy may be implied as operating standards for treatment, storage and disposal are developed. Hazardous waste technology does involve risk, but the technology EPA may wish to promote would probably involve fewer environmental risks than conventional technology, while the more important barrier to its implementation is its higher cost and the comparatively low demand for it. Nevertheless, if the technology proves faulty, the losses that result may be substantial and, for this reason, a promise of indemnification might provide some incentive for implementation of the technology.

d. Evaluation of Indemnification

The desirability of incentive indemnification must be evaluated in each distinct context where it is proposed. In each context, a threshold question is whether this type of indemnification is viable without a corresponding government funding program similar to § 202(a)(2). That question can be answered affirmatively, only if government policy to encourage use of innovative technology is supported by a willingness to fund modification or replacement costs if necessary.

In contexts where there is such support, the next question is the choice between indemnification and commercial insurance covering the same risks. The choice of indemnification will defer the actual expenditure until after the harm has occurred and, depending upon the financing structure used, may also place the expenditure in some budget other than that of the demonstration project. Such costs, however, should properly be internalized to the demonstration project program if a decision is made to provide government funding of such costs. Where coverage is needed, its cost should be absorbed by EPA in the same way, and only to the same extent, as other innovative technology costs. Thus, the principal rationales for using indemnification rather than commercial insurance would be that such insurance is commercially unavailable, that the premium costs are comparatively much higher than indemnification expenditures would be, or that there are significant benefits to deferring the expenditure.

Since much of the innovative technology that is the subject of demonstration grants is designed to operate at the "end of the pipe,"

any continuing harms to be incurred are often remediable merely by removing the device being demonstrated. After such a removal, the host source is often no worse off, other than any liability incurred, than if it had needed to invest in conventional technology in the first place. Since its investment in the demonstration technology is small or zero, the host source's losses from failure of that technology will often be readily absorbed by the pollution control equipment manufacturer, who is hoping that the demonstration project will prove successful.

Only in the case where actual production processes must be altered to accommodate the demonstration project technology and altered back when the technology fails, will the host source suffer a substantial loss for the failure. In such circumstances, the purchase of private insurance may be more appropriate than an offer of indemnification by EPA. While the type of coverage required may be unusual and costly, this reflects the relative rarety of the need for coverage, and hence also for indemnification.

The future of the use of demonstration projects to spur the use of innovative and alternative technology under the Clean Air Act is very uncertain at this point, however, recent budget cuts have reduced the funding for demonstration projects to the point that it may no longer be a viable stimulus. The predictions of budget support for demonstration projects may indicate that support for an indemnification program would be lacking.

In the absence of either construction grant funding or demonstration project grants, it is still theoretically possible that indemnification would be desirable, if there were a sufficient regulatory or commercial incentive for the use of innovative technology, and the risk of failure or equipment damage were deemed to be a determining impediment. While the evidence does not indicate that a situation of this type has yet arisen, use of indemnification might be considered more closely if the circumstances seem to warrant it. At this point, the need for indemnification has not been shown in the air pollution control context.

The technological-feasibility problems presented by RCRA differ from those of other innovative technology programs principally in that the existing implementation barriers to hazardous waste treatment, storage or disposal technology development appear to be economic rather than technical. Thus, the ample list of unused or underutilized hazardous-waste technologies derives, not from their need to be demonstrated or improved, but from their relatively high cost, compared to conventional disposal practices. The main barrier to improved technology is the lack of demand for that technology at its current price. That price, in turn, reflects not only the relative complexity of the improved technology, compared to conventional measures, but also the difficulties of siting the technology in the face of public opposition.

For this reason, it may be unreasonable to believe that a promise of indemnification would substantially alter the net impact of existing incentives and barriers to hazardous waste technology implementation. The magnitude of the other factors influencing hazardous waste technology decision making appears to be so much greater than the magnitude of the risk of technology failure, that indemnification can be expected to alter decision processes in only rare circumstances.

e. Conclusion

Use of indemnification as an incentive to encourage use of innovative technology in either the air pollution or hazardous waste areas has limited potential applicability. Based upon current evidence, the extension of a § 202(a)(3) type of indemnification to other EPA Program areas does not seem warranted.

D. INDEMNIFICATION UNDER § 113(b) OF THE CLEAN AIR ACT

1. Legislative History and Background

a. Introduction to § 113(b)

Section 113 of the Clean Air Act[80] provides the primary enforcement authority pertaining to stationary source requirements of the Clean Air Act. Section 113(a) provides for administrative notices of violation and orders; § 113(b) provides for civil relief; § 113(c) provides for criminal relief; and § 113(d) provides for delayed compliance orders.

Section 113(b), requires EPA in certain cases, and authorizes it in others, to bring a civil action for an injunction or for a civil penalty, or both. It also provides for partial indemnification in the case of unreasonable enforcement:

> [I]n the case of any action brought by the Administrator under this subsection, the Court may award costs of litigation (including reasonable attorney and expert witness fees) to the party or parties against whom such action was brought in any case where the court finds that such action was unreasonable.

This provision was enacted as a part of the 1977 Clean Air Act Amendments, which instituted major changes to the basic federal enforcement scheme established in 1970.[81] The 1970 Amendments stressed administrative enforcement at the federal level for the first time under federal pollution control legislation. By 1977 EPA had proceeded with hundreds of administrative enforcement actions to require compliance with applicable emission limitations. However, some of these actions, for practical reasons, lengthened compliance timetables past deadlines established in the 1970 Amendments. The 1977 Amendments substantially constrained EPA's enforcement authority by limiting the criteria under which such extensions might be granted (§ 113(d)) and by requiring that EPA go to court to obtain long-term injunctive relief, at the same time, Congress provided a judicial civil penalty mechanism to facilitate economic sanctions for unwarranted compliance delays. These amendments seemed to forecast more substantial reliance on judicial enforcement by the agency; therefore, it is not surprising that Congress would have included a provision under § 113 designed to constrain unreasonable enforcement litigation.[82]

b. Legislative History to the § 113(b) Indemnity Provision

Section 113(b)'s indemnification provision originated in the House Interstate and Foreign Commerce Committee as an amendment to

H.R. 10498 in the 94th Congress (1976 session).[83] The House Committee Report on that bill explained that the provision was intended to protect parties against "wholly unwarranted enforcement actions" and to restrain "overzealous enforcement;" the report also commented that, "Only if the bringing of the action is arbitrary, capricious, frivolous, harassing, or wholly without basis in fact or law should the court consider such an action 'unreasonable'."[84] The Senate followed the House version, as did the Conference Committee.

No bill was ultimately enacted in 1976. When Congress began again in 1977, the House bill did not include the indemnity provision under § 113(b). Instead it arose in the Senate. As introduced and ultimately enacted, it was identical to the 1976 House version. The Report of the Senate Committee on Environment and Public Works explained, simply, "The intent of the provision is to prevent harassment of parties by the Government."[85] The Conference Report provided no further explanation.[86]

c. Legislative Issues Involving Indemnification

There is very little recorded debate in the legislative history on the issue of indemnification; and no mention is made of specific circumstances warranting the inclusion of such a provision in 1977 Amendments. However, the issue has been debated in other contexts, as discussed below.

(1) Background

The American private litigation system is one of the few in the world that do not award court costs and attorney fees to the prevailing party as a matter of course. The "American Rule," removes a potential barrier to litigation. A party must expect to pay his own way, win or lose, but he need not forego a legitimate cause of action out of fear that he may lose and incur the litigation costs of his opposition. The rule thus reflects a strong American orientation toward the importance of encouraging litigation.[87] In this view the power to litigate is the power to ensure not only that the law is applied, but that it is continually refined to suit new or changed circumstances.

Discretionary exceptions to the American Rule are recognized in at least three broad categories; (1) to penalize frivolous or intentionally harassing litigation, delay tactics, and other actions amounting to abuse of process; (2) to effect an equitable distribution of litigation costs when the litigant has performed a benefit for a larger class of persons (e.g., a stockholder suit that benefits all stockholders); and (3) to encourage litigation to facilitate accomplishment of statutory goals (e.g., encouragement of the public to act as private attorneys general where statutes expressly allow for such an award). In all three categories, the exception continues to pro-

mote the underlying philosophy of the American Rule by discouraging unwarranted litigation (in the case of the first) and by encouraging desirable litigation that might otherwise be unaffordable (in the case of the last two).[88] These exceptions are so well established as to be considered part of the Rule.

According to the principle of sovereign immunity, the government is subject only to such legal claims as it may expressly allow by legislation. Although there are a fairly large number of statutes[89] in which Congress has authorized recovery of attorneys' fees among private litigants, few statutes have allowed recovery against the Federal Government and even fewer in enforcement cases. Most EPA implemented statutes, for example, allow recovery of attorneys' fees by citizens who sue to require the Administrator to perform a nondiscretionary duty,[90] but only the Clean Air Act and the Toxic Substances Control Act allow recovery of attorneys' fees in other circumstances, and only the Clean Air Act allows recovery in an enforcement action.

In 1981, however, Congress enacted general legislation waiving immunity for attorneys' and expert witness' fees. This legislation, the Equal Access to Justice Act, applies to all litigation by and against the Federal Government involving small business (it also applies to certain formal administrative adjudications).[91] Its primary purpose is to erase an economic barrier to legitimate litigation although the legislative history also indicates that small industry may be more susceptible to unfair litigation tactics pursued by the government.[92] This statute applies to all EPA programs, including enforcement under the Clean Air Act.

(2) Section 113(b) in Contrast to Other Approaches

Key aspects of the § 113(b) indemnification option are that the award is discretionary, it may be made only to the party or parties against whom the enforcement action is brought (i.e., not to the Administrator), it may be made only where the court finds that such action was "unreasonable," and the award for attorney and expert witness fees must be "reasonable."

(a) The American Rule

Under the American Rule an award is usually made only if a party ultimately prevails, and it is not necessarily conditioned on a determination that the action was unreasonable (for example, an award might be made if a large class of persons has benefited by the suit). Conceivably, a successful defense to EPA enforcement might benefit other potential defendants, for example, by exposing the weakness or error in an underlying regulation. However, an award for this reason is not allowed under § 113(b).

The question of restricting the award only to prevailing parties arose as a legislative issue on several occasions under the 1977 Amendments -- relating to § 307 as well as § 113(b). Ultimately, this restriction was rejected on the basis that a harassing suit might nevertheless be won by the government, and that a suit under § 307 may provide a benefit to others even if it is lost by the plaintiff. In both cases the legislative objective would be thwarted by denying attorneys' fees, perhaps on the basis of a simple legal technicality.[93]

Under the American Rule a much clearer concept of "unreasonable" agency action than exists under § 113(b) has evolved.[94] Under the "bad faith" exception, action meriting such an award is almost always limited to circumstances when the judge perceives an intent to harass or delay -- in other words, action amounting to an abuse of process. The policy behind the American Rule approach is to establish a disincentive to misconduct, but also to preserve existing incentives to litigate (the fundamental purpose of the rule); thus, litigation pursued in good faith should not be restrained even if it may later prove to be unfounded, but litigation pursued in bad faith should be restrained.[95]

(b) The Surface Mining Control and Reclamation Act

Section 525(e) of the Surface Mining Control and Reclamation Act[96] is the only other federal environmental protection statute that allows an award of attorneys' and expert witness' fees in the context of enforcement. In contrast to § 113(b), it allows a discretionary award by the Secretary for costs resulting from administrative proceedings, including formal as well as informal adjudications, and by a court for judicial review of those procedings. Judicial enforcement proceedings, however, are not expressly covered.

According to § 525(e), an award may be made to either party ". . . as the court . . . deems proper." Both the legislative history and implementing regulations promulgated by the Department of Interior's Office of Surface Mining (OSM) make it clear that an award should be made only when the proceeding has been initiated "in bad faith and for the purpose of harassing or embarassing the permittee."[97] The clear purpose of the provision was to establish a disincentive to such action. Although several petitions have been filed under this section, no award has yet been made.[98]

A major difference between § 113(b) and § 525(e), as interpreted and applied by OSM is that an award may be made under § 525(e) for costs during administrative proceedings. Another variation pertains to what circumstances justify an award. The language of § 113(b) requires a finding that the action was "unreasonable;" § 525(e), on the other hand, only requires that the award be deemed "proper." The legislative history to § 525(e), however, strongly sup-

ports an interpretation consistent with the American Rule -- that an award be made when the action is frivolous or for harrassment; and it has been restricted by rule only to circumstances clearly involving bad faith.[99]

(c) The Equal Access to Justice Act

The Equal Access to Justice Act[100] provides for attorneys' fees awards to small businesses and, like the Surface Mining Control and Reclamation Act, authorizes such awards in administrative as well as judicial actions, although the administrative actions are restricted to formal adjudications. When administrative action is involved, the award is mandatory, subject to demonstration that the agency position was substantially justified or that special circumstances make the award unjust. The result is the same when judicial action is involved; in addition, sovereign immunity is waived, and the common law adopted for circumstances not already covered under the Act. In both cases a party must prevail to receive an award. Guidance is given on how to determine reasonable fees. An agency may pay from appropriated funds, and funds are specifically authorized for that purpose.

Since § 113(b) of the Clean Air Act does not cover administrative actions, the Equal Access to Justice Act expands the circumstances where attorneys' fees can be recovered under Clean Air Act proceedings (although formal adjudications occur in only a few narrow circumstances under the Act). With respect to judicial enforcement, § 113(b) may be in conflict with the new statute, since it allows for discretion in making the awards and since the § 113(b) standard may be somewhat more favorable to the agency (although this would be a matter of interpretation).

Substantial legislative debate was given to the issue of what circumstances would justify an award under the new Act. A purely discretionary standard, similar to the Surface Mining Control and Reclamation Act and the American Rule, was rejected in part because it was thought that an agency would be reluctant to award fees against itself in an agency proceeding. It was also thought that an agency required more specific legislative direction.[101]

Also rejected was a standard proposed by the Department of Justice, that would limit recovery to circumstances in which the government action was "arbitrary, frivolous, unreasonable, or groundless, or the United States continued to litigate after it clearly became so." It was thought that this standard would be too difficult for the regulated party to prove. Instead, the burden was shifted to the government to prove that its action was "substantially justified" (or that other special circumstances would make an award unjust).[102]

According to a Department of Justice spokesperson, only one petition has been filed to date (the effective date of the Act was October 1, 1981). The Department is currently processing that claim.[103]

2. Application to Date

a. Cases

There is only one case to date in which an award under § 113(b) has been made or requested.[104] This case involved Apache Powder Co., a manufacturer of explosives in Arizona, who had been cited by both the State agency and EPA for violating Arizona nitric acid plant emission requirements.[105] Compliance problems were documented as early as 1972 by the state, and in response to a request for assistance by the State, EPA began documenting violations soon after. Ultimately, both the State and EPA agreed to a compliance plan which involved replacement of the noncomplying facility and retirement by January, 1976. When, as late as 1978, the facility was still operating in violation of emission requirements, EPA initiated a suit to recover civil penalties, to require compliance with the Arizona regulation and to enforce a § 113 abatement order previously issued by the Agency.

Apache moved for summary judgment on the ground that EPA had failed to approve variances submitted by the State to EPA, which, if approved, would have excused the violation. Although information is not clear on the point, it seems that during consideration of this motion, Department of Justice lawyers determined that an independent basis for challenging the case existed -- that EPA had not satisfied a jurisdictional prerequisite to the action by approving the underlying regulation as a part of the State Implementation Plan. Although the Regional EPA Office argued that the regulation had been approved, the Department, with EPA concurrence, filed a Confession of Error and agreed to pay costs and counsel fees.

A review of the reported facts in the case and subsequent legal proceedings indicates a strong likelihood that throughout all of the proceedings the Agency acted in good faith. The potential procedural deficiency that resulted in withdrawal from litigation had been identified by regional lawyers long before initiation of litigation, and had been resolved on the basis of legal arguments that probably would not be considered frivolous.[106]

b. Indemnification Factors

(1) Administration

There is no indication in the Apache Powder case that administration of the indemnity provision was burdensome or presented

specific problems. Costs of litigation are normally fairly easily documented. While one might anticipate dispute over the issue of whether specific costs are "reasonable," a Department of Justice attorney indicated that consideration of such claims is routine, not time-consuming, and rarely controversial. When they are controversial, he indicated that courts generally follow the Department's recommendation, and the controversy is usually resolved without a substantial additional effort by the Department. The preferred route is to negotiate a proposed award out-of-court.[107]

A General Accounting Office staff person, who actually processes the award, indicated that payment is also a very simple administrative procedure. Notice of the Award is forwarded by the Department, and a check is drawn on the Judgment Fund of the U.S. Treasury. This fund, which supplies wide-ranging claims, is maintained at a high enough level so that attorneys' fee awards represent an almost insignificant depletion.[108]

(2) Financing

The financing mechanism for § 113(b) is through the Judgment Fund, authorized by 31 U.S.C. § 724(a) for the purpose of paying judgments against the United States, administered by the GAO, and financed from general revenues. According to a GAO staff person, Congress routinely replenishes the fund with specific appropriations and does not usually scrutinize individual payouts.[109] Since this fund serves as a reservoir for judgments and fees in a wide range of cases, it is doubtful that the costs in a single claim for attorneys' fees would be significant in comparison to all claims against the fund.

(3) Costs

Approximately $10,000 was awarded Apache Powder in fees and costs.[110] These were considered reasonable and in line with costs incurred in suits of similar scope and duration according to a Department of Justice attorney.[111] Since this is the only award to date, the total costs of implementing the § 113(b) indemnity provision are probably not significant. There is no indication that EPA resources have been devoted to the provision -- no regulations address the provision, and persons interviewed were not aware of any formal or informal agency efforts to consider the provision; indeed, no agency policy memoranda which address indemnification under § 113(b) could be identified.

(4) Alternative Relief Mechanisms

The experience to date suggests § 113(b) provides a relief mechanism that is not required. This is indicated primarily by the infrequency of awards (one). However, it may also be reflected in recent agency indications that air pollution enforcement for stationary sources will shift more toward a State assistance role.[112]

(5) Equity, Fairness, Due Process

Although § 113(b) provides partial relief to a person who has suffered wrongdoing on the part of EPA, this is not its major purpose. Rather, Congress intended primarily that § 113(b) deter the Agency from future wrongdoing; and the award of attorney fees works both as an incentive to the economically disadvantaged party to raise legitimate defenses to unreasonable litigation, and as a disincentive to unreasonable litigation in the first place. By compensating for the smaller inequity (unreasonabale litigation costs) § 113(b) prevents the larger inequity (submission to unreasonable enforcement without defense). Viewed in this manner, an award in Apache Powder would not have been appropriate if Apache would have defended anyway. This would have been the case, according to an attorney who represented Apache during the proceedings.[113]

It should also be noted that the company considered the amount of the award to be satisfactory.[114] It was not determined, however, whether additional uncompensated expenses were incurred, or whether the company feels that attorney costs (and other costs) prior to litigation deserve compensation. EPA's enforcement action began almost five years prior to the 1978 court action. During that time, extensive negotiations occurred between the company and EPA. Evidence strongly indicates, however, that negotiations with the state agency would have continued to occur in any case, and that the company may not have reduced its overall resource commitment in these negotiations even if EPA had not been involved.

(6) Statutory Indemnification Objectives

A primary purpose of the indemnity provision was to reduce the likelihood for "unreasonable" enforcement litigation by EPA. Fee shifting might accomplish this by allowing for an effective defense, where no defense (or an ineffective defense) would otherwise be pursued: knowledge that a defendant would pursue its case might deter the Agency from using litigation as an unwarranted threat; pursuit of a legitimate defense would also protect against a miscarriage of justice; finally, a fee payment obligation might serve as an economic or moral deterrent to unreasonable litigation.

Apache Powder alone provides little basis for testing the objectives of § 113(b). Even if one assumes that as a result of Apache Powder more careful attention would be given to state implementation plan status in future cases, it is not clear what role the indemnity clause has played. It does not appear that the agency action was taken in bad faith. Furthermore, discussions with agency officials indicate greater embarassment over having to abandon the case than over the payment.[115] In addition, it is likely that Apache Powder would have pursued its defense even if no such award were allowable.[116]

The infrequency of § 113(b)'s usage (only one case to date) may be viewed as an indication that the provision is not necessary. Although it could also be viewed as an indication that the provision is actually working effectively as a deterrent, this interpretation is of doubtful merit. Most agency persons interviewed were either unaware that the indemnity clause existed, or indicated that it had never been actively considered when planning and pursuing litigation. Internal clearance procedures are so rigorous that there is very little risk that actions will be groundless.[117]

Further, a review of recent congressional hearings and other reports involving the Clean Air Act and numerous interviews with industry representatives disclosed little evidence that EPA judicial enforcement is viewed as harassing, erroneous or without legal justification.[118] The vast majority of all cases filed under § 113(b), in fact, go to court in the form of negotiated consent decrees.[119] Finally, if the indemnity clause is needed to encourage companies to defend against the agency when the imbalance of litigation resources would otherwise be dissuasive, then one would expect to see more reliance on the provision than has occurred.

(7) Impact on Other Statutory Missions

An area of concern in any prospective indemnification program, especially those designed to have an impact on specific agency actions, is whether the program will result in other unintended adverse impacts. A logical area of concern under § 113(b) would be the potential for interference with EPA enforcement objectives. There has been no indication, however, that the indemnification provision of § 113(b) has had either a positive or a negative impact on enforcement under the Clean Air Act.

3. Summary Assessment of § 113(b)

a. It Is Questionable Whether The Indemnity Provision In § 113(b) Is Needed To Accomplish Congressional Purposes.

Concern over the potential for harassing, or otherwise "unreasonable" enforcement litigation under the Clean Air Act seems unfounded. Only one case has involved such an award, and research disclosed few instances of complaint regarding the good faith of, or errors involving EPA enforcement litigation. In fact, the great majority of enforcement actions are resolved by negotiated consent decree. In addition, EPA budget requests, enforcement clearance procedures, and other air program guidance within EPA suggest that litigation occurs only after rigorous screening procedures designed to ensure that it is justified. Finally, it is doubtful that the § 113(b) fee-shifting provision would actually serve as a disincentive to unreasonable litigation, since EPA is not accountable for the fee under the present system. A ruling against EPA on the case would probably be a more persuasive deterrent.

Experience to date also does not support the need for an indemnity provision to overcome an inequitable distribution of litigation resources between EPA and enforcement case defendants. Even if such an inequity has existed, the limited usage of § 113(b)'s indemnity clause indicates that the inequity has been an unimportant factor in judicial enforcement proceedings. Although it is possible that such limited usage has occurred because the indemnity provision provides an insufficient enticement to defend, the more likely reason is that enforcement cases have been justifiable. Few cases, in fact, have occurred which were not settled by consent decree. Agency spokespersons also expressed their sentiment that inequities do not actually exist -- industry that is subject to enforcement litigation normally has more resources for defense at its disposal than the Agency has for prosecution. This view could not be confirmed with actual data, however.

b. Potential Problem Areas

(1) Definition of "Unreasonable" Enforcement

The legislative history tends to support two interpretations of the term "unreasonable." In one interpretation, action may be "unreasonable" only when it is pursued in bad faith (an interpretation consistent with common law application of the American Rule on fee shifting). In the other, it may be "unreasonable" for less restrictive grounds -- when the action was taken in good faith, but a court determines the decision to be arbitrary or without adequate legal basis.

(2) Who pays?

Under § 113(b) the agency is not accountable for payment. Rather, the award is paid by GAO from the Judgment Fund. It is possible, that payment by agency would create a more significant disincentive to engage in "unreasonable" enforcement. There is no present indication, however, that a more significant disincentive (or, in fact, any disincentive at all) is needed.

(3) Equal Access to Justice Act Overlap

This overlap exists only to the extent small businesses are involved. If so, a "prevailing" small business may attempt to obtain more favorable treatment under the Equal Access to Justice Act than is provided under § 113(b). The award in such a case is mandatory, subject to a demonstration by the Agency that its enforcement action was "substantially justified," or that other special factors warrant no award. Although the burden of proof has clearly shifted to the agency, it may be possible for the agency to argue that the substantive standards are essentially the same as under § 113(b).

4. The Applicability of the § 113(b) Model to Other EPA Statutes

Major characteristics of § 113(b) indemnification are: (1) the need to restrain unreasonable judicial enforcement pursued by EPA, and (2) the need to encourage persons to litigate who would otherwise refrain from defending an enforcement action in court for economic reasons. While the need for such a program under the Clean Air Act is not clearly justified, it could nevertheless be justified in enforcement litigation under other statutes administered by EPA. For most of the same reasons, however, a similar indemnification provision is probably not warranted under other EPA statutes.

a. There Is Little Evidence That Judicial Enforcement Undertaken By EPA Is Arbitrary, Harassing, Without Legal Authority, Or Otherwise Unreasonable.

Discussions with industry and agency spokespersons, and a review of current literature disclosed very few judicial enforcement cases that could be termed "unreasonable" in the sense that the agency brought the action erroneously or without legal justification.[120] Most industry complaints relating to unreasonable EPA enforcement concern underlying regulations or policies, or they relate to enforcement target selection or negotiating practices of the Agency.

b. There Is No Reason to Expect That Ureasonable Judicial Enforcement Will Occur in the Near Future.

Although enforcement authorities and mandates vary among the different EPA statutes, the internal control over enforcement actions recommended for litigation is the same. This control is rigorous, requiring a careful demonstration of facts and legal theories that must be cleared through numerous layers of regional, headquarters, and ultimately Department of Justice concurring authority.[121] Interviews with present and past enforcement officials indicated that this screening process works well to prevent unwarranted enforcement.[122]

EPA's enforcement policies also emphasize that only the major violators will be aggressively pursued, and the states will be relied on more to fulfill the overall compliance goals established by Congress. Even the major violators will be encouraged, as in the past, to settle out-of-court.[123]

c. There is No Indication That Such a Provision Would Actually Work as a Disincentive to Unreasonable Enforcement.

Persons involved in the implementation of enforcement programs who were interviewed in the course of research agreed that payment of attorney fees for unreasonable enforcement would be irrelevant as a disincentive to unreasonable litigation. Prevention of such action would occur primarily because of the internal clearance procedures.[124]

If the agency were forced to divert substantial funds from previously authorized activities in order to cover litigation indemnities, it is possible that this would serve more as a disincentive to litigate whenever there is a risk of loss, rather than as an effective disincentive to engage in unreasonable enforcement.[125]

d. An Alternative Exists Which May Obviate the Need for Extending § 113(b) to Other Statutes, If Such a Need Exists.

The Equal Access to Justice Act promises an award to prevailing parties in all EPA enforcement litigation if EPA cannot justify its action.[126] This Act applies only to small businesses. However, it is the small business that is most likely to have economic reasons not to defend aggressively against EPA enforcement. Larger companies, which are more often subject to enforcement, typically have adequate resources to defend against EPA action, and the availability of an indemnity for litigation costs will not usually be the persuasive factor in a decision to defend.

E. INDEMNIFICATION PURSUANT TO § 311(i) OF THE CLEAN WATER ACT

1. Legislative History And Background

a. Introduction to § 311(i)

Section 311 of the Clean Water Act[127] is the primary regulatory mechanism under that statute for restricting one-time or episodic discharges of oil and hazardous substances[128] that may be accidental or intentional, and are not susceptible to regulation by permit. It contains both preventive and remedial requirements, as well as separate sanctions and a revolving fund to finance cleanup. This fund is administered by the United States Coast Guard (USCG) and financed by special appropriations, penalties, and moneys recovered from responsible parties.

Section 311's prevention requirements are implemented by EPA for non-transport dischargers and by the USCG for transport dischargers. However, its spill response requirements are divided geographically: the USCG maintains jurisdiction in the coastal zone, ports and harbors, and the Great Lakes, while EPA maintains jurisdiction in other U.S. waters. Other federal agencies are involved, as needed, in the formulation and implementation of a national contingency plan.[129]

A major portion of § 311 is structured to ensure a rapid, effective response to a spill. Its provisions require immediate notification when a spill occurs and impose strict liability (with certain limited defenses) on the discharger for the costs of cleanup. If the discharger's actions are inadequate, the Federal Government may initiate cleanup on its own and later sue the discharger for reimbursement. A limit on liability exists unless the discharge involved gross negligence or willful misconduct. If the discharger is able to assert a defense under §§ 311(f) and (g), however, he is not required to clean up.[130] To the extent that he does clean up, § 311(i) entitles him to reimbursement for the reasonable costs involved. That section provides:

> (i)(1) In any case where an owner or operator of a vessel or an onshore facility or an offshore facility from which oil or a hazardous substance is discharged in violation of subsection (b)(3) of this section acts to remove such oil or substance in accordance with regulations promulgated pursuant to this section, such owner or operator shall be entitled to recover the reasonable costs incurred in such removal upon establishing, in a suit which may be brought against the United

> States Government in the United States Court of Claims, that such discharge was caused solely by (A) an act of God, (B) an act of war, (C) negligence on the part of the United States Government, or (D) an act or omission of a third party without regard to whether such act or omission was or was not negligent, or of any combination of the foregoing causes.
>
> (2) The provisions of this subsection shall not apply in any case where liability is established pursuant to the Outer Continental Shelf Lands Act, or the Deepwater Port Act of 1974.
>
> (3) Any amount paid in accordance with a judgment of the United States Court of Claims pursuant to this section shall be paid from the funds established pursuant to subsection (k) of this section.[131]

The primary benefit and legislative intent of § 311(i) is that it encourages rapid cleanup by the party most knowledgeable of the content and amount of a spill, and the party most likely to be first aware that it has occurred. It accomplishes this result primarily by providing an economic incentive where there may be no other adequate incentive to take corrective action because of the cost involved and the confidence that there would be no liability.[132] In addition, it removes a potential barrier to rapid private cleanup by postponing the need to resolve potential issues of liability.[133]

Section 311(i) thus utilizes government indemnification to encourage a regulated party to take immediate steps to mitigate the harmful impacts of a sudden pollution occurrence. Such a program is potentially relevant to all areas of pollution control supervised by EPA where unforeseeable and unavoidable discharges might occur, and where the availability of an indemnity might be persuasive in the encouragement of immediate mitigation efforts to avoid imminent environmental damage. In such a case, it is possible that regulated parties might provide a more effective, cost efficient public service than the Agency assigned primary responsibility to do so.

b. Legislative Background

Although the oil spill provisions of § 311 date back to the Oil Pollution Act of 1924, most of the oil spill programs in effect today originated in or are modeled after the Water Quality Improvement Act of 1970.[134] Coverage of hazardous substances was added by the Federal Water Pollution Control Act Amendments of 1972.[135] However, implementation of hazardous substance removal authority was delayed

until after amendments to the Clean Water Act were enacted in 1978, which clarified EPA's authority and responsibilities relating to the designation of hazardous substances and the determination of harmful quantities.[136] Currently, however, EPA authority over hazardous substance spills is exercised primarily under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA),[137] and § 311 is used primarily for the prevention and regulation of oil spills.[138]

The 1970 Water Quality Improvement Act provisions relating to oil spills derived from numerous House and Senate bills offered in the wake of the Torrey Canyon, Santa Barbara, and other major oil spills of the late 1960's. Extensive congressional hearings at the time reviewed the adequacy of existing statutory authority to prevent, contain and remove such spills. Ultimately, comprehensive legislation was developed in both the Senate and the House. However, a § 311(i) equivalent arose only in the Senate.[139] This provision was modified slightly in conference and retained as § 11(i) of the Act.[140]

Available legislative history does not indicate who proposed the original Senate version of § 311(i) or the reasons offered at the time.[141] A further review of House and Senate Hearings on the proposed legislation discloses almost no discussion of the issue and it appears not to have been controversial.[142] However, a primary thrust of oil spill cleanup policy has always been to encourage prompt private action. This policy was articulated in the first "National Multi-Agency Oil and Hazardous Materials Pollution Contingency Plan" (September 1968), and has been repeated in many statements of legislative and regulatory policy since.[143]

The Senate report accompanying S. 7 noted simply:

> S. 7 provides an opportunity for the owner or operator of a vessel or onshore or offshore facility to immediately remove any oil discharged. It is the intent of the committee to encourage removal of oil by the owner or operator of the discharging source.
>
> In many instances, the owner or operator of a vessel or onshore or offshore facility will know of a discharge prior to any agency of the U.S. Government and be in the best position to take early action to prevent or minimize damage. As testified to by the oil and shipping industry it will be in the best interest of the owner or operator to take immediate measures to reduce damage from an oil spill.[144]

c. Other Statutory Approaches

There are three other statutes pertaining to oil spills and one other statute pertaining to hazardous substance spills which are similar in basic design to § 311 of the Clean Water Act. These include, for oil, the Trans-Alaska Pipeline Authorization Act of 1973 (TAPAA),[145] the Deepwater Port Act of 1974 (DWPA),[146] the Outer Continental Shelf Lands Act Amendments of 1978 (OCSLA),[147] and for hazardous substances, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).[148] Each of these statutes imposes strict liablity for certain costs associated with spills and establishes a separate fund, in part, for the purpose of providing an effective response to spills not adequately provided under § 311.

(1) The Existing Oil Spill Fund Statutes[149]

Like § 311, each of the other oil spill fund statutes (TAPAA, DWPA and OCSLA) authorizes government cleanup and provides the government with a right to obtain reimbursement from the responsible party unless a defense is available. Again like § 311, each statute also establishes a limit on liability, so that to the extent the limit is exceeded, the fund pays for certain costs that might otherwise have been incurred by the responsible party.

There are numerous differences, however. Most notably, the § 311(k) fund size is much smaller; it is financed primarily by appropriations, while the other funds are financed primarily by fees assessed against the oil facility and vessel owners; the scope of liability is much smaller under § 311, excluding property damages, third party cleanup costs, and other types of claims covered under the other statutes. In addition, discharger liability limits vary, as do defenses that may be asserted against the government in cleanup cost recovery proceedings.

Although no provisions identical to § 311(i) exist, both OCSLA and DWPA allow for the fund to cover discharger cleanup costs in two ways. First, both statutes allow for a claim against the fund for such costs if a defense to liability exists.[150] Second, both statutes limit the discharger's liability in such a way that cleanup costs exceeding that limitation might be charged against the fund.[151] TAPAA, on the other hand, makes the right-of-way holder absolutely liable for cleanup costs,[152] and appears to allow vessels to recover such costs if they exceed liability limits.[153]

(2) Proposed Oil Spill Superfund Legislation (H.R. 85)

If any one facet of the four oil spill fund statutes stands out, it is that different measures are used in all four to accomplish the same objectives.[154] The past Administration attempted

to resolve these differences (along with other objectives) by proposing oil Superfund legislation. For several years such legislation was proposed and debated (most recently as H.R. 85) but never passed Congress.[155]

A review of the most recent legislative debates disclosed no express concern over the need for a change in approach to § 311(i) or to similar provisions under the other funding statutes. However, significant concern was expressed regarding the need for more stringent sanctions to encourage dischargers to take prompt action.[156]

Although no provision identical to § 311(i) emerged, a somewhat similar approach was adopted which was closer in design to the OCSLA and DWPA models. Section 103 of H.R. 85 would have allowed a claim against the fund by the discharger for "removal" costs if a defense to liability existed or if such costs exceeded the statutory limit on liability. (A similar claim could also be made by a non-responsible third party.) Under § 104 limits on liability would not apply if the incident were due to willful misconduct or gross negligence or a violation of applicable federal regulations, or if the owner or operatior failed or refused to assist in cleanup. Defenses would have included acts of war, natural phenomena and third party responsibility (a "third party" would include governmental entities).[157]

(3) The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

CERCLA addresses a much larger variety of pollution incidents than any of the oil spill legislation. Ironically, it does not include oil spills, even though early initiatives supporting Superfund legislation were largely directed at coordinating and improving the various oil spill statutes.[158] In 1979, however, Superfund momentum shifted toward hazardous substance pollution problems. Primary congressional concern was focused on the thousands of abandoned or inactive hazardous waste disposal sites which required expensive remedial action. However, concern was also expressed over chemical spills.

In congressional Superfund hearings EPA Deputy Administrator, Barbara Blum testified that as many as 1,800 hazardous substance spills occur each year that are not subject to regulation under § 311 because they do not reach navigable water.[159] She went on to testify that other EPA authority to deal effectively with such incidents was also limited in some major respect -- usually having to do with funding or procedural constraints.[160]

CERCLA addressed these problems directly by providing an extensive funding mechanism ($1.6 billion over a five year period, compared to the $35 million revolving fund under § 311(k)) and stiff sanctions for failure to report a spill or to take required cleanup

steps. At the same time, many of the other issues that have plagued implementation of the oil spill statutes were resolved.

While CERCLA contains no provision identical to § 311(i), a similar result could be accomplished under § 111(a), which provides that the President may pay any claim for necessary response costs incurred by any person (other than the government) as a result of carrying out the national contingency plan, so long as such costs are approved under the plan and certified by the responsible federal official. However, the approval requirement in this section has been interpreted by EPA to require pre-authorization.[161] This requirement, along with a current EPA policy to authorize only a very minor amount of cleanup costs by persons other than governmental organizations or approved contractors marks a significant difference between CERCLA and § 311(i).[162] In effect, these policies seriously restrict voluntary cleanup action.

Three primary factors have been cited in support of this Agency position: (1) cleanup techniques for chemical spills (as opposed to oil spills) require highly specialized knowledge, not only to prevent wasted effort, but also to prevent mistakes that may compound the environmental threat or complicate further cleanup, or both; (2) containment and cleanup action require special safety precautions because of the dangerous nature of many chemicals (more so than oil), and the government should not establish economic incentives to engage in dangerous conduct, especially when the risks may be minimized by encouraging the use of specific contractor organizations known to have the requisite skills; and (3) it is desirable to maximize EPA cost control in order to protect the fund -- unanticipated cleanup costs, not subject to federal supervision, would be an unacceptable drain on limited resources.[163]

Undoubtedly, cost control is of primary significance. There is a tremendous federal incentive (reflected in the legislative history to CERCLA, as well as agency regulations)[164] to require private cleanup whenever possible, since the total anticipated cleanup costs, according to one estimate, may exceed fund resources by several hundred percent.[165] Offering reimbursement for voluntary cleanup could result in numerous claims, ultimately draining the fund and interfering with EPA prioritization of fund expenditures -- and perhaps resulting in an unacceptable commitment of resources to the administration and adjudication of claims (without preauthorization of expenses, a greater number of non-legitimate claims would be expected).

Persons directly involved in spill cleanup, moreover, feel that inherent differences in the characteristics of chemicals and oil increase the opportunity for error and dangerous exposure and that the potential benefit in encouraging inexperienced private voluntary cleanup in the limited circumstances that might be managed effectively without preauthorization would not justify the risks involved.

Nonetheless, others have indicated that the potential for increased environmental harm cannot be dismissed, and the costs of cleanup for certain events may be more extensive. It may be expected that spills will occur for which the discharger is clearly not liable and for which he will be unwilling to take immediate cleanup steps without federal reimbursement. For some of these spills, federal cleanup will be more difficult and cost more because of the delay, and greater environmental damage will occur.

It is perhaps too soon to tell whether the approach under CERCLA is more appropriate than the approach under § 311(i). Although Superfund has been in effect for almost one and one-half years, implementation has proceeded slowly and conservatively.[166]

2. Application To Date

a. Cases[167]

Since 1973 there have been 45 cases brought under § 311(i) of the Clean Water Act, all involving oil spills, and totalling approximately $6.3 million in claims. Fourteen of the cases have resulted in settlement and four have resulted in an award by the U.S. Court of Claims. Fourteen cases were dismissed by the court and 13 cases are currently pending.

Approximately 80 percent of the cases filed to date have involved an act or omission of a third party. Approximately half of these cases have involved vandalism. Over 60% of the completed third party cases have been settled in favor of the plaintiff.

Only one claim involving negligence on the part of the U.S. Government has been filed. In that case, the USCG wrongfully accused the plaintiff of an oil discharge. The plaintiff filed a claim for $936, the smallest claim submitted to date, and the case was settled. Half of the remaining cases (approximately 10% of the total) were claimed to involve acts of God. Half of these were settled in favor of the plaintiff. Finally, eight of the cases involved insurance companies that had paid for a loss incurred as a result of an oil spill and then sought reimbursement from the Court of Claims.

b. Indemnification Factors

(1) Costs[168]

Total anticipated payments for claims filed to date are approximately $1.2 million, or $117,000 per year for the 10 year period. If 1972 is excluded (it was the first year of the program and there was only one case) and 1979-1981 is also excluded (additional cases may still be filed for these years), the annual average is approximately $188,600.

While the average claim has been about $119,000, the average claim for which payment has been made was approximately $69,000. The average payment to date has been $39,000.

The future number and types of cases brought to the U.S. Court of Claims under § 311(i), and resulting costs may reasonably be expected to be similar to those submitted to date. There is always the possibility that a very large case will be filed which greatly modifies the payments for a given year. However, there have been a sufficient number of cases to date to allow for an estimate which, over the long run, should be fairly accurate.

In addition to payments of claims, additional costs are incurred in administering the program. Most of these involve Department of Justice lawyers responsible for defending against the claims and Court of Claims adjudication costs. In addition, there are minor costs involved in administering the revolving fund under § 311(k). These costs are not readily available for inclusion in this report.

Although the costs to date and predictable future costs are not insignificant, no basis has been identified for concluding that the costs are unacceptable in view of the benefits derived. In fact, the actual reimbursed cleanup costs incurred by the discharger may be less than what they would be if the state or Federal Government were to conduct the cleanup. This is not simply because the private polluter may be able to manage cleanup more efficiently, but because the delayed reaction time inherent in government initiation of cleanup may result in greater costs because of the increased difficulty involved in containment and removal. However, this is a matter of speculation, and no data was available which addressed this issue.

(2) Financing

The financing mechanism for § 311(i) is through § 311(k) which establishes a revolving fund operated by the USCG and financed through a combination of appropriations, penalties against § 311 violators, and costs recovered by the government. The fund, which is currently maintained at $35 million, is available for all cleanup action, including reimbursement under § 311(i), federal cleanup, and certain state and local activities as well.

Although it was hoped initially that the combination of penalties and federal cost recoveries would be sufficient to replenish the fund, this has not happened. Based in part on this experience, funds established to finance cleanup in subsequent legislation (the Outer Continental Shelf Lands Act, Deep Water Port Act, Trans-Alaska Pipeline Authorization Act, and CERCLA) are financed in large part by special fees imposed on potential dischargers. Proposed oil spill Superfund legislation (H.R. 85) would also follow these later models.

The total payout associated with § 311(i) to date, approximately $700,000, appears to represent a small burden on the § 311(k) fund and would not in itself appear to justify revision of the financing system for such payments.

(3) Administration

The administration of claims under § 311(i) is straightforward. Suit is filed in the Court of Claims. An adversary proceeding ensues, with Department of Justice lawyers representing the § 311(k) fund. Claims may be settled; judgments are appealable; and payments are made by the USCG from the § 311(k) fund upon presentation of a request in accordance with 33 C.F.R. § 153.411.

Persons from the USCG have suggested, however, that the Court of Claims procedure may be too lengthy and cumbersome for the small number of cases involved. Docket delays occur, and resolution of many cases might occur sooner if less formal or non-adversarial procedures were utilized to consider whether prerequisites to recovery are met. It is possible that these delays interfere with a primary statutory objective -- that the promise of recovery serve as an incentive for the non-liable discharger to take rapid cleanup steps. However, this could not be documented.

In other circumstances involving statutory incentives to proceed rapidly with oil spill cleanup (e.g., the Outer Continental Shelf Lands Act, the Deepwater Port Act, and the Trans-Alaska Pipeline Authorization Act) funds available for private cleanup efforts are financed primarily by a fee levied against the owner of the oil, and claims procedures are administered by the agency or a third party. Although this alternative might allow for a more efficient processing of claims under § 311(i), the USCG may be reluctant to assume such duties: the budget implications would probably be considered unfavorable; furthermore, the USCG has traditionally viewed claims adjustment as an area of responsibility that is inconsistent with and might detract from its primary operational duties, and the USCG has contended in the past that it does not have adequately trained persons to assume such duties.[169]

(4) Fairness, Equity, Due Process

Fairness is not ordinarily an issue for consideration in the incentive indemnification situation, because the purpose of the mechanism is not to remedy some inequity that may have occurred, but to encourage a nonliable discharger to assist in eliminating an environmental hazard. However, experience indicates that an inequity periodically occurs. Occasionally, the USCG makes a tentative determination that a party is liable, that party proceeds with cleanup, and later it is determined that some other party was actually responsible. Often, in such a case, the discharger is not certain whether or not he

is responsible, and the need for immediate response does not allow time for determining liability prior to initiating cleanup. It is also possible that the Federal Government will clean up a spill, then assess and collect costs from a party erroneously determined to be responsible (the USCG reports that this happened on one occasion).[170]

In both cases the party may turn to § 311(i) to be indemnified for the government error. However, if it turns out that the party was not the discharger, he cannot recover, since § 311(i) limits recovery only to a discharger.[171] This restriction does not exist under OCSLA and was not included in H.R. 85.

(5) Statutory Indemnification Objectives

Section 311(i) has worked to encourage timely, cost-effective private cleanup of certain oil spill incidents and thus has fulfilled its primary purpose on those occasions. However, the small number of claims since 1972 (45) compared to the large number of reportable oil spills since 1972 (one estimate exceeds 125,000)[172] indicates that § 311(i) is not a major factor in accomplishing cleanup. Most cleanup is initiated by the federal, state or local government, or by a responsible party who admits or is found to be liable for cleanup by the government or who is ineligible for indemnification.[173]

This suggests that other mechanisms utilized under § 311 designed to accomplish cleanup or establish cleanup incentives have been working well (e.g., national contingency plan, surveillance, notification, state indemnification, penalty provisions, etc.). Most oil spills are now detected relatively quickly and cleanup usually occurs, although whether cleanup is always effective is a matter of debate.[174]

With respect to chemical spills, there is no record of any attempt to obtain reimbursement under § 311(i). Yet, such spills have occurred in significant numbers during the years since enactment of § 311.[175] Several factors appear to account for this. First, § 311(i) could not actually be used for chemical spills until September 28, 1979, when EPA promulgated regulations on reportable quantities for hazardous substances -- a necessary prerequisite to determining the existence of a violation under § 311(b)(3), which, in turn, is a precondition to a cause of action for a claim under § 311(i)(1). Second, EPA and the USCG have traditionally discouraged unsupervised private response efforts involving chemical spills because of the complexity and dangers involved.

Other possible explanations for the limited use of § 311(i) involving chemical spills include:

- Until recently very little containment and removal action was considered possible for chemical spills.
- When small spills are involved (most chemical spills are small in comparison to oil spills) the cost of cleanup rarely merits the cost of pursuing a claim under § 311(i).
- Since enactment of CERCLA (December 11, 1980) the USCG and EPA have relied on CERCLA for response to chemical spills, rather than § 311, and dischargers may have concluded that they no longer have status under § 311(i).[176]

(6) Alternative Mechanisms

Primary alternatives to § 311(i) include (1) more elaborate surveillance and response capability on the part of government, (2) more effective spill disincentives and spill prevention regulations; (3) more effective private cleanup incentives; and (4) elimination of the incentive altogether along with substitution of a provision requiring absolute liablity for cleanup.

(a) Expanded Government Surveillance and Response

Improvements in government surveillance of and response to oil and chemical spills have been areas of continual progress. As a practical matter, however, budget and other administrative constraints virtually eliminate effective governmental oil spill response management without discharger assistance. It is well accepted that all of the reportable oil spills (over 8,000 a year according to one estimate)[177] and their location (throughout most of the states and territorial waters) could not be effectively addressed by available governmental response resources. This, in addition to the fact that the discharger is most often in the best position to take effective immediate mitigating action, has resulted in the current legislative strategies to promote private action -- strict liability for government cleanup except when certain defenses apply, and when those defenses apply, compensation under § 311(i).

While it is conceivable that the government might undertake cleanup in the few cases that merit a claim under § 311(i), there are at least two drawbacks. There is a risk that in some instances the failure of the discharger to take immediate stop-gap measures will create a more complicated and costly cleanup problem; also, the government would be forced to make an early determination of liability in close cases to allow for an appropriate choice of action.

This would result in less flexibility and a greater administrative burden than currently exists at the time that a spill occurs.

(b) Enhanced Spill Prevention Strategies

Section 311 already gives substantial emphasis to spill prevention.[178] Regulations on oil spill prevention currently exist.[179] In addition, fines and civil penalties are allowed under both § 311 and CERCLA.[180] It is conceivable that more highly sophisticated prevention techniques and a severe sanctions policy would diminish spill incidents. However, there is general agreement that a certain number of spills are inevitable, regardless of the exercise of preventive care.[181] As long as this is the case, spill prevention techniques and measures to encourage their application will never be adequate substitutes for spill response techniques.

(c) Enhanced Cleanup Incentives

Alternative incentives are probably inappropriate, at least for non-liable dischargers, since it has been demonstrated that indemnification under § 311(i) actually works to encourage desired cleanup that might not otherwise occur as effectively or as efficiently.[182] Some doubt must remain on this issue, however, in view of the different approach recently adopted under CERCLA for chemical spills. Under CERCLA, EPA will allow for reimbursement of a non-liable party only if the expenses have been preauthorized as consistent with the National Contingency Plan.[183]

A possible drawback to the CERCLA approach is that certain desirable containment and removal actions could be delayed or would not occur because of the time required to obtain preauthorization and because of possible monetary limits that would be imposed on the private response. Possible advantages, on the other hand, include more effective safety and cost control under government supervision, and more effective allocation of fund resources toward higher priority incidents. Whether the CERCLA approach will prove to be the better, one must await further experience in the implementation of CERCLA, and will require in any case that consideration be given to differences in the statutory goals of CERCLA (use of the fund for long-term and non-emergency remedial activity and hazardous waste sites) and to inherent differences involving dispersal and cleanup characteristics of the pollutants (chemicals under CERCLA, oil under § 311(i)).

Nonetheless, certain changes instituted in the oil spill fund statutes following § 311, as well as in CERCLA, might prove beneficial under § 311 as mechanisms to encourage or facilitate private cleanup assistance. These include:

- Expansion of § 311(i) to include non-dischargers (with restrictions to prevent clearly inappropri-

ate or ineffective cleanup, or counter productive profiteering).

- Agency administration of claims rather than administration of claims in the Court of Claims.
- Authority to order cleanup and stiff penalties for failure or refusal.
- Expanded funding (financed, perhaps, by potential dischargers).

(d) Elimination of § 311(i)

Elimination of the § 311(i) incentive altogether would not seem wise without concurrently imposing absolute liability for cleanup on the owner or operator. This liability would be necessary to ensure that the government is not solely responsible for cleanup when the owner is clearly not at fault. If the government were solely responsible in such a situation, there would be a greater risk of environmental and other property damage, not only because of the natural delay inherent in a notification/response system, but also because the government would be forced to make a more careful determination of liability prior to any cleanup action. This determination would be necessary, since the discharger would have no ability to recoup his expenses if he cleaned up, then was able to show later on that he was not liable. Since a determination of liability would probably be opposed by the discharger, it could prove to be difficult and time consuming, and the government might be encouraged to clean up the spill and incur the costs involved rather than become bogged down in dispute over the issue of liability.

The no-fault, absolute liability for clean-up alternative, on the other hand, presents a more sensitive political issue. Presumably, under such an alternative, the discharger could proceed against a responsible third party for damages. But this would not be an effective solution if unforeseeable and unavoidable acts of God or war were involved. In the past, Congress has rarely been willing to impose absolute liability without the benefit of any defense, and has chosen instead to adhere to the progressive strict liablity doctrines adopted by many courts and state legislatures which recognize certain limited defenses out of fairness to those who could not have foreseen or avoided the incident and are wholly without fault.[184]

(7) Impact on Other Statutory Missions

In general, implementation of § 311(i) appears to have promoted cleanup goals of the Clean Water Act, at least for the claims which have been rendered. A brief survey of the facts in each case decided to date indicates that there have probably been few, if any,

unwarranted recoveries. Persons who fail to take reasonable precautions against a spill usually do not recover in the Court of Claims.[185]

It is possible, on the other hand, that vigorous defense by Department of Justice lawyers in the Court of Claims, combined with the long delay in resolution (suits are still pending where claims were filed as early as 1975) has served as a disincentive to voluntary cleanup, even when it seems that the spiller would qualify for compensation under § 311(i).

It has also been suggested that third parties who are actually responsible for spills may benefit by § 311(i), because the innocent spiller will not attempt to recover from such a person, and the government, who is subrogated to the spiller's rights in such a situation, may forego further action because of the time and resource commitment that is often required in identifying the responsible party and proving the case.

Finally, it has been suggested that encouragement of voluntary cleanup may actually work against the goals of CERCLA. Encouragement of such action might introduce costs that will burden the hazardous substance response fund and interfere with the allocation of available resources to higher priority actions. These objections, however, were limited to hazardous substance spills.[186]

(8) Other Congressional Policies

No significant conflicts with other congressional policies were identified.

3. Summary Assessment of § 311(i)

a. Is § 311(i) Appropriate and Needed?

Information directly supporting the appropriateness and need for § 311(i) was obtained in this study. Representatives of industry and the Federal agencies have indicated that § 311(i) actually serves as encouragement to conduct voluntary cleanup after an oil spill and to proceed with greater willingness to clean up when probable liability has been established by the government. In addition, spokespersons for the USCG indicated that the availability of § 311(i) makes it easier to persuade potentially responsible persons to conduct cleanup, without being certain that they are actually responsible, since they will be eligible for an indemnity. Assignment of responsibility without a complete investigation is not often possible. Such an option is particularly important because the USCG may have limited resources, or the USCG cleanup response time may be unreasonably long when compared to the likelihood for environmental damage and the more rapid response that may be undertaken by private parties who are closer to the incident. (A joint effort is often appropriate.)

Private cleanup may also be more cost effective than when undertaken by the government because of private economic efficiency incentives, as well as because of the possibility that continued delay will allow for a spill to spread and make the cleanup task more difficult.

Although some potentially negative impacts of § 311(i) have been suggested, no such impacts were actually documented.

Whether § 311(i) is needed for hazardous substance spills is a question that may not be effectively addressed for two reasons: (1) there have been no claims under § 311(i) for such spills to date, and (2) hazardous substance spills are covered under extensive new authority in CERCLA, which may obviate further need for § 311(i).

b. Potential Problem Areas

(1) Administration in the Court of Claims

The oftentimes long delay in resolving a claim, coupled with the adversarial nature of the proceeding, may discourage voluntary cleanup initiatives because of the actual difficulty in obtaining reimbursement of costs. Alternatives have been suggested in H.R. 85.[187]

(2) Availability of Funds Under § 311(k)

The lack of funds under § 311(k) to finance oil spill cleanup on a large scale (e.g., similar to the chemical spill cleanup financed under CERCLA) may prevent complete cleanup and other appropriate remedial activity.

(3) Conflicting and Overlapping Statutes

All four oil spill statutes contain different liability standards, different financing requirements, different administrative requirements, and other inconsistencies. Although perhaps justified individually when enacted, all together they produce a complex web that invites difficult and inconsistent implementation. These problems are heightened by CERCLA, which imposes a fifth set of liability and reimbursement rules for chemical spills.

(4) Voluntary Cleanup of Chemical Spills by Innocent Parties

CERCLA policies prevent large-scale financing of cleanup efforts by dischargers, including those who are uncertain of their liability. Section 311(i) has been used effectively in such circumstances to enable the USCG to persuade a discharger to clean up without having to determine liability, then pay later, if it turns out the discharger can assert a defense to liability. CERCLA policies may

not permit such an approach; and the agencies may be less willing to order needed cleanup if there is reasonable doubt regarding the discharger's liability.

On a more fundamental level, the limited, procurement approach to cleanup that EPA has taken under CERCLA suggests that there is little, if any, role in chemical spill cleanup for voluntary, unsupervised efforts. This approach is strongly defended within EPA and may in actuality be the better approach for chemical spills; however, insufficient experience exists to make such a determination at the present time.

4. The Applicability of § 311(i) to Other EPA Programs

a. Introduction

The following elements are important to § 311(i): (1) an unanticipated spill, discharge or release of a pollutant that is a threat to the environment; (2) the possibility that effective immediate action may be taken by the discharger to contain or remedy the problem after the spill or release has occurred; (3) greater cost savings or environmental benefit if the discharger undertakes the containment or remedial action quickly; and (4) no other incentive for the discharger to take such action voluntarily.

If there exist other situations that include the four criteria, the question presented is whether it is reasonable to attempt to apply a mechanism such as § 311(i). This question depends on whether the situation is already being addressed by a different mechanism, whether that mechanism appears to deal adequately with situations of that type (or could be made to do so), and whether a § 311 model could more profitably be utilized.

b. Evaluation of Other EPA Programs

Sudden, unanticipated pollution occurrences exist in all of the pollution media subject to EPA jurisdiction. Many of these are hazardous and require some type of immediate action. In testimony on Superfund, for example, Deputy Administrator Barbara Blum pointed out that as many as 1,800 spills a year are not regulated under § 311 because they go into groundwater, the air, or onto land. Moreover, as many as 1,000 hazardous substance spills that reach navigable waters were not subject to § 311 jurisdiction at the time because they involved substances not yet designated under § 311.[188]

This gap in authority was one primary reason for the enactment of CERCLA. Its provisions cover virtually every type of hazardous substance release for which application of a § 311(i) approach might be appropriate. These include hazardous substances designated under § 311(b)(2)(A) of the Clean Water Act, hazardous wastes listed under

§ 3001 of the Resource Conservation and Recovery Act, hazardous pollutants listed under § 112 of the Clean Air Act, imminently hazardous chemical substances or mixtures which have been acted on pursuant to § 7 of the Toxic Substances Control Act, and any other substance regulated pursuant to § 102 of CERCLA. The most significant coverage, however, is provided under § 104. According to § 104(a)(1), whenever such a substance, or any other pollutant or contaminant which may present an imminent and substantial danger to the public heath or welfare is released or there is a substantial threat of release into the environment, the President is authorized to act in a manner consistent with the national contingency plan to remove the substance and provide remedial action, unless he determines that removal and remedial action will be done properly by a responsible party.

Under § 107, the discharger is liable for removal and remedial costs unless he can prove that the release and damages were caused solely by an act of God, an act of war, or an act or omission of a third party. In such a case, the statute is silent on the discharger's prerogative to remove or conduct remedial action voluntarily. However, § 111(a) provides that the President may pay any claim for necessary response costs incurred by any person as a result of carrying out the national contingency plan so long as such costs are approved under the plan and certified by the responsible federal official. Under this provision, EPA has indicated that it will require prior approval of private response efforts,[189] and will strictly limit the extent to which CERCLA funds may be spent in that regard.[190]

The reasons for EPA's position include concerns over safety and the chance of error (inherent differences in the nature of oil and chemical releases are noted), but perhaps the most important concerns relate to the potential costs involved if private parties may conduct cleanup actions that have not been preauthorized, and the potential interference with EPA fund allocation priorities. In effect, EPA feels that the risks of increased environmental damage associated with the rejection of a § 311(i) approach under CERCLA are outweighed by the need to ensure safety, effective cleanup management, and control over fund allocations.

At this stage, CERCLA implementation has not proceeded far enough to evaluate the successfulness of CERCLA policies as an alternative to § 311(i).[191] Until such time, it would be inappropriate to recommend the extension of § 311(i) to other EPA programs, without an indication of specific circumstances in which cleanup efforts are failing because there is no voluntary action by nonliable parties. No such information surfaced during this study. Therefore, no recommendation for extending § 311(i) to other EPA programs has been made. However, in view of the success of § 311(i) in the area of oil spills, it is recommended that CERCLA policies on this issue be reconsidered after sufficient implementation experience has been gained.

FOOTNOTES TO SECTION III

[1]The following description and analysis draws on an extensive series of interviews with involved parties at EPA, the Department of Justice, industry and congressional staff.

[2]P.L. 92-516, 86 Stat. 973.

[2a]444 U.S. 51, 100 S. Ct. 318, 326 (1979) (citations omitted).

[3]The Federal Insecticide, Fungicide, and Rodenticide Act of 1947, P.L. 80-104, 61 Stat. 163, repealed and replaced the Insecticide Act of 1910, P.L. 61-152, 36 Stat. 331. Amendments to FIFRA were enacted in 1964 as P.L. 88-305, 78 Stat. 190.

[4]P.L. 94-140, P.L. 95-396, and P.L. 96-539.

[5]Allowing farmers to use their stocks is sometimes spoken of as "disposal by use." Spreading the pesticide out all over the country, rather than transporting and then disposing of it all in one place, can sometimes reduce risks to human health and the environment.

[6]See Conner, "Federal Indemnification for Losses Resulting from the Suspension of Hazardous Products -- the Lessons of FIFRA," 32 A.B.A. Admin. L. Rev. 441 (1980).

[7]Appendix A, page A-20.

[8]Appendix A, page A-19.

[9]Appendix A, page A-19.

[10]Appendix A, page A-18.

[11]Imminent hazard is not a statutory basis for cancelling a pesticide registration; it is the basis for suspension. The language of § 15 appears to be a drafting error.

[12]This provision was included by the Conference Committee to assure that indemnification would be denied to persons who had not produced a pesticide in good faith. However, the language goes beyond inquiry into the claimant's knowledge of the safety risks posed by the pesticide. It seems to require an investigation into whether EPA would conclude that the risks are outweighed by the benfits of use, because that is the standard for registration. As a practical matter, it would be difficult to deny indemnification to any producer under this standard because the evidentiary requirements are too difficult. Thus, it is probably ineffective for its intended purpose of weeding out those claiming indemnification in bad faith.

[13]Supra note 3.

[14]The only public records of these meetings are three revised committee prints of H.R. 4152. Committee Print No. 2, dated June 22, 1971, contained a very brief indemnity provision, while Committee Print No. 3, dated July 13, 1971, contained a more detailed indemnification provision that eventually passed the House as H.R. 10729 in November 1971.

[15]See, e.g., testimony of American Farm Bureau Federation, Federal Pesticide Control Act of 1971: Hearings before the House Comm. on Agriculture, 92d Cong., 1st Sess. 462 (1971); Dow Chemical Company, id. at 302; Union Carbide Corporation, id. at 332, 349-50; Sierra Club, Federal Pesticide Control Act 1972: Hearings Before the Subcomm. on Agriculture Research and General Legislation of the Senate Comm. on Agriculture and Forestry, 92d Cong., 2d Sess. 123, 127 (Part II) (Mar. 7-8, 1972); Environmental Defense Fund, id. at 156, 157; and the Public Interest Research Group, id. at 354-55. It was during the second day (February 23, 1971) of these hearings that the indemnification issue was raised in an exchange between Representative Goodling (R.-Pa.) and J.P. Campbell, Undersecretary of Agriculture. House Hearings at 67-68.

[16]Committee of Conference, S. Rep. No. 92-1540, 92d Cong., 2d Sess. (1972).

[17]The agreement was signed on May 7, 1979 after negotiations with EPA's Office of General Counsel and Chevron Chemical, the largest manufacturer of Silvex products.

[18]See 39 Fed. Reg. 14753 (Apr. 26, 1974) (emergency suspension), EPA PR Notice 74-5 (Apr. 30, 1974), and 40 Fed. Reg. 3494 (Jan. 22, 1975) (cancellation).

[19]For Aldrin/Dieldrin see 39 Fed. Reg. 37265-72 (Oct. 18, 1974) (suspension), Environmental Defense Fund v. EPA, 510 F.2d 1292 (1975) (suspension upheld but use of special rule ordered to be reconsidered), and 40 Fed. Reg. 24232 (June 5, 1975) (status of existing stocks). For Heptachlor/Chlordane, see 39 Fed. Reg. 41298 (Nov. 26, 1974) (intent to cancel), 41 Fed. Reg. 7552 (Feb. 19, 1976) (intent to suspend), 548 F.2d 998 (1976) (suspension upheld but special rule ordered to be reconsidered), 43 Fed. Reg. 12372 (Mar. 4, 1978) (cancellation allowing phase-out).

[20]Interview on November 5, 1981 with Ralph Colleli, formerly EPA Office of Pesticide Programs.

[21]Administrative hearing suspended for settlement negotiations.

[22]House Hearings, supra note 15, at 349-50 (Mr. Wellman of Union Carbide).

[23]Section 15 does not specify the source of funds for paying indemnification claims. In response to a question from Senator Curtis, David D. Dominick, Assistant Administrator for Categorical Programs of EPA, stated that EPA would "provide the indemnification" under § 15. There was no discussion of the matter. Senate Hearings, supra note 15, at 93. Anita Johnson of the Public Interest Research Group argued in her testimony before the Senate Subcommittee that, "the pending bill is abhorrent because it requires indemnities to be paid from EPA funds." Id. at 354-55.

[24]44 Fed. Reg. 15874 (Mar. 15, 1979)

[25]Telephone conversation on March 11, 1982 with Ray Krueger, EPA Office of Pesticides, Hazard Evaluation. As of March 11, 1982, four million containers of liquid Silvex were still at the collection points established by the registrants. The disposal process will involve shipment of the containers of Silvex to the same waste facility in Alabama that was used for the solid pesticide. EPA now has a contract with the Alabama facility for disposal of the liquid. The containers will be opened and the liquid removed and incinerated, but it is estimated that this will not occur prior to September 1982.

[26]117 Cong. Rec. 40047 (1971) (e.g., remarks of Rep. Teague).

[27]Interview on October 21, 1981 with Herb Harrison, Chief of Insecticide/Rodenticide Registration Branch.

[28]Since 1972 EPA has only denied registration for five active ingredients (used in 216 applications). Four of the five had already been cancelled when application for the new registration was made: DDT, sodium cyanide, sodium fluoroacetate, and heptachlor/chlordane. The fifth was a petition to use sodium arsenate in bottle tops.

[29]Telephone conversation on May 19, 1982 with Edward Gray, EPA Acting Associate General Counsel for Pesticides. (The Acting Associate General Counsel for Pesticides has said that this is so clear to all involved that he has never heard an argument to the contrary).

[30]The pesticide industry is so competitive that substitutes are constantly under study, even in the absence of regulation. The National Research Council study Regulating Pesticides estimates the economic life of a pesticide to be only about 10 years.

[31]For example, the total impact of the 2,4,5T/Silvex suspensions was estimated to be $89 million (nearly all attributed to the 2,4,5T uses). The Economics Analysis Branch, Office of Pesticide Programs, EPA Pesticide Cancellations/Suspensions: A Survey of Economic Impact, March 1980.

[32]Supra note 26 at 40053 on October 21, 1971 (Rep. Abernathy).

[33]Id. at 40052 (Rep. Poage).

[34]Appendix A, page A-7. See, e.g., Mugler v. Kansas, 123 U.S. 623 (1887) (elimination of a nuisance).

[35]See, e.g., United States v. Pennsylvania Industrial Chemical Corp., 329 F. Supp. 1118 (W.D. Pa. 1971), rev'd & remanded, 461 F.2d 468 (3d Cir. 1972), modified, 411 U.S. 655 (1973) (discharge of industrial waste without permit); and United States v. Articles of Drug. . . Hormonin, 498 F. Supp. 424 (D.N.J. 1980) ("new drug" required registration despite previous FDA letter indicating otherwise). See also, Thompson, "Equitable Estoppel of the Government," 79 Colum. L. Rev. 551 (1979); Annot, "Estoppel Against Government," 27 A.L.R. Fed. 702 (1976).

[36]Supra note 26 at 40049-50 (Rep. Goodling and Rep. Kyl).

[37]House Hearings, supra note 15 at 349-50 (Mr. Wellman of Union Carbide Corp.).

[38]Appendix E, page E-11 et seq.

[39]Id. at 11.

[40]Id.

[41]"Product Regulation and Chemical Innovation," (The Conservation Foundation, March 1980), Interview with Dr. Arnold Aspelin, Chief Economic Analysis Branch, Office of Pesticide Programs.

[42]117 Cong. Rec. 40052 (1971) (Rep. Andrews and Rep. Poage).

[43]Four of the five (used in 216 applications) had already been cancelled when application for the new registration was made: DDT, sodium cyanide, sodium fluoroacetate, and heptachlor/chlordane. The fifth was a petition to use sodium arsenate in bottle tops.

[44]Supra note 42 at 40052-53 (Rep. Bergland).

[45]Id. at 40046 (Rep. Evans).

[46]Id. at 40050 (Rep. Obey).

[47]The Tris case is the only product ban indemnfication situation in which Congress has supported compensation, and that action was vetoed by the President. The Senate has now passed a new bill. See Appendix A, page A-22.

[48]Appendix E, page E-5.

[49]Section 5 of the Toxic Substance Control Act requires manufacturers of chemicals to notify the Agency 90 days before beginning commercial production of a new chemical. If the Agency has concerns about a new chemical, it can order the manufacturer to do specific tests though this happens rarely.

Section 4 established an Interagency Testing Committee that recommends to the Administrator which existing chemicals should be given priority consideration for testing. The Administrator has 12 months to respond to the recommendations by intiating a rulemaking or publishing in the Federal Register a reason why it will not be initiated.

Section 8 contains authority for several kinds of recordkeeping and reporting requirements. The most important is the inventory established by 8(b). Until this section was implemented, there had been no comprehensive knowledge of what chemicals were being produced in the United States. It now provides the baseline for determining what chemicals are "new." In addition, there is a mandatory duty to report to the Administrator "any information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment" under § 8(e).

Sections 6 and 7 provide authority to regulate existing chemicals when there is a reasonable basis to conclude that they provide an unreasonable risk of injury to human health or the environment. The Administrator is required to chose the least burdensome requirement that will adequately protect against the risk. The economic consequences of the regulation are to be taken into account, as are the possibilities of regulating under another statute. In fact, § 9 requires the Administrator to use other EPA authorities to protect against the risk unless it is in public interest to use TSCA. If the risk may be reduced to a sufficient extent by action taken under a Federal law administered by another agency, the Administrator is required to give the other agency an opportunity to act, before taking action under TSCA.

[50]TSCA § 6(d)(2) provides for immediately effective proposed rules, but if the rule proposes a total ban, it must be preceeded by a court order under § 7. Thus, the only way to immediately ban a chemical under TSCA is to go to court.

[51]Appendix A, at page A-22.

[52]Infra page 134.

[53]33 U.S.C. §§ 1251 et seq.

[54]P.L. 97-117 (Dec. 29, 1981).

[55]Such technology is defined, in part, in terms of its ability to produce:

- reduced life-cycle costs of treatment facilities;
- reduced primary energy requirements for treatment; or
- improved environmental quality

as compared to conventional technology. U.S. Environmental Protection Agency, Innovative and Alternative Assessment Manual, [EPA 430/9-78-009] (1980).

[56]The Clean Water Act § 202(a)(1), as amended by P.L. 97-117, contains the new 55% limitation.

[57]Information regarding the intent of the Conference Committee in including this section is found in the House debates on the Conference Report (the Senate debates do not mention § 202(a)(3)). Rep. Roberts explained the Committee's action:

> In recognition of the risks involved in encouraging this departure from business-as-usual [as evidenced by the provisions encouraging development and deployment of innovative and alternative technology], the conferees adopted another amendment authorizing grants to cover the total cost of modifying or even replacing systems that do not perform as intended and result in capital or operating and maintenance costs significantly higher than anticipated. This, in effect, constitutes an insurance policy.
>
> * * *
>
> Innovative technology, as referred to in the conference report, means new and promising technology which has not been fully proven under the circumstances of this contemplated use. . . . It would fall between the extremes of unproven technology, and the old conventional methods which have been duplicated and repeated endlessly in this country. We think the key lies in the recognition and acceptance of a certain element of risk, which is why we provide for the Federal Government to assume 100 percent of the costs of modifying or replacing systems which fail to perform as intended. These risks are deemed acceptable in light of the potential benefits in terms of environmental enhancement, lower capital or

> maintenance costs, and reclamation, recycling and use of water which is becoming increasingly costly to provide.

3 A Legislative History of the Clean Water Act of 1977, A Continuation of the Federal Water Pollution Control Act 299, (emphasis added 307-08 (1978) (hereinafter cited as "CWA Legislative History"). Later in the debate, Rep. Cleveland emphasized the insurance nature of the provision:

> However, because we encourage innovation and because we recognize there is risk, new subsection 202(a)(3) provides for payment of all of the costs of modification or replacement of facilities which do not meet design performance specification. This provision, an insurance policy, recognizes there will be risks where technology is pushed ahead.

3 CWA Legislative History 299, 385 (1978).

[58]40 C.F.R. § 35.2032(c), 47 Fed. Reg. 20462 (May 12, 1982).

[59]Telephone conversation on December 7, 1982 with Richard Thomas, EPA Office of Water Program Operations, Municipal Technology Branch.

[60]Section 202(a)(3) was not present in either S. 1952 or H.R. 3199 as originally passed by each House of Congress. The indemnification provision enacted into law was added by the Conference Committee:

> Additionally, the Administrator is authorized to make a grant to fund all costs of modification or replacement of facilities constructed with such a grant if they fail to meet design performance specifications, unless this failure is attributable to negligence, and has significantly increased capital or operating and maintenance expenditures.

H.R. Rep. No. 95-830 at 55, 95th Cong., 1st Sess., reprinted in, 3 CWA Legislative History 185, 239 (1978).

[61]Supra note 57.

[62]Concern for the encouragement of innovation was very evident in the Senate Report on S. 3199:

> More than any other issue concerning the construction grant program the committee hearings focused on the need to encourage

> alternative and innovative systems. The problems of small communities coping with expensive capital-intensive waste treatment systems and the wastefulness of discharging valuable nutrient resources to the Nation's waters were stressed throughout the country. The need for new industrial processes which produce no waste was emphasized.

S. Rep. No. 95-370 at 5, 95th Cong., 1st Sess., reprinted in, 4 CWA Legislative History.

[63]Supra note 57.

[64]Supra note 58.

[65]Supra note 54.

[66]43 Fed. Reg. 44049, 40 C.F.R. § 35.908(c). The proposed new regulations were published November 6, 1981. 45 Fed. Reg. 55220, proposed 40 C.F.R. § 35.2032. The 1978 regulations provided:

> (c) Modification or replacement of innovative and alternative projects. The Regional Administrator may award grant assistance to fund 100 percent of the eligible costs of the modification or replacement of any treatment works constructed with 85-percent grant assistance if:
>
> (1) He determines that:
>
> (i) The facilities have not met design performance specifications (unless such failure is due to any person's negligence);
>
> (ii) Correction of the failure requires significantly increased capital or operating and maintenance expenditures; and
>
> (iii) Such failure has occurred within the 2-year period following final inspection; and
>
> (2) The replacement or modification project is on the fundable portion of the State's priority list.

[67]Figures provided by Richard Thomas, supra note 59.

[68]In FY 1980, the Construction Grants appropriation was $3.4 billion.

[69]Supra note 54.

[70]In addition, there may be cost savings relative to conventional technologies in the operation or maintenance of the plant.

[71]Id.

[72]33 U.S.C §§ 1254 and 1255.

[73]Telephone conversation on March 23, 1982 with William Cawley, Deputy Director, U.S. Environmental Protection Agency, Industrial Environmental Research Laboratory.

[74]Id.

[75]Id.

[76]33 U.S.C. § 1254 provides the authorization of the grants.

[77]Telephone conversation on January 25, 1982 with Mike Maxwell, Chief, Emission and Effluent Technology Branch, U.S Environmental Protection Agency, Industrial Environmental Research Laboratory.

[78]Telephone conversation on February 1, 1982 with Malcolm P. Huneycutt, Contracting Officer, U.S. Environmental Protection Agency, Contract and Management Division (Research Triangle Park).

[79]The mechanism providing for this insurance is found in Clause 42 of the standard EPA contract which provides:

> (a) The Contractor shall procure and maintain such insurance as is required by law or regulation, including that required by Subpart 1-10.5 of the Federal Procurement Regulations as of the date of execution of this contract, and such insurance as the Contracting Officer prescribes by written direction.
>
> (b) At a minimum, the Contractor shall procure and maintain the following types and amounts of insurance:
>
> (1) Workmen's compensation and occupational disease insurance in amounts sufficient to satisfy State law;
>
> (2) Employer's liability insurance, where available;
>
> (3) Public liability insurance, on the comprehensive form of policy, in the amount of

$200,000 per claimant and $500,000 per incident;

(4) When aircraft are used in the performance of the contract, aircraft public and passenger liability insurance, in such form, in such amounts, and for such periods of time as the Contracting Officer may require or approve;

(5) When vessels are used in the performance of the contract, vessel collision liability and protection and indemnity liability insurance, in such form, in such amounts, and for such periods of time as the Contracting Officer may require or approve.

(c) With respect to any insurance policy all or part of the premiums of which the Contractor proposes to treat as a direct cost under this contract, and with respect to any proposed qualified program of self-insurance, the written approval of the Contracting Officer shall be obtained prior to any claim for payment therefor. The Contractor shall be reimbursed for the protion allocable to this contract.

(d) The term of any other insurance policy held by the Contractor shall be submitted to the Contracting Officer for review and/or approval upon request of the Contracting Officer.

(Emphasis added.)

[80]42 U.S.C. § 7413.

[81]Federal clean air legislation dates back to 1955. See Act of July 14, 1955, 69 Stat. 322. Numerous amendments have occurred since. The most significant, however, were the 1970 and 1977 amendments. Pub. L. 91-604, 84 Stat. 1676 (December 31, 1970); and Pub. L. 95-95, 91 Stat. 712 (Nov. 16, 1977). See, e.g., "The Clean Air Act Amendment of 1977: A Selective Legislative Analysis" 13 Land & Water L. Rev. 747 (1978); "Enforcement and Litigation Under the Clean Air Act Amendments of 1977," 12 Natural Resources Lawyer 435 (1979); "Clean Air Act Amendments of 1977," 19 Natural Resources J. 475 (1979).

[82]See, e.g., "Enforcement and Litigation under the Clean Air Act Amendments of 1977," 12 Natural Resources Lawyer 435, 482-87 (1979).

[83]As first offered by Representative Satterfield (D. Va.), it provided that a court could make an award whenever it found the action

"unwarranted" or determined that such an award was "appropriate." Although Satterfield's amendment was rejected, the committee passed a similar amendment (and one identical to the provision ultimately enacted) offered by Representative Eckhardt (D. Tex.), and amended by Representative Dingell (D. Mich.), which restricted the award to actions found to be "unreasonable." A separate amendment offered by Representative Frey (R. Fla.) to provide an award only to a "prevailing" party was also rejected in Committee. Minutes of the House Committee on Interstate and Foreign Commerce (Full Committee Mark-up Session, Clean Air Act Amendments of 1976), 94th Cong., 2d Sess. (March 19, 1976).

[84]H.R. Rep. No. 94-1175 at 277, 94th Cong., 2d Sess., reprinted in 7 CAA Legislative History 6547, 6826 (1978).

[85]S. Rep. No. 95-127 at 99-100, 95th Cong., 1st Sess., reprinted in 3 CAA Legislative History 1371, 1473-74 (1978).

[86]While the amendment to § 113(b) was under consideration, a separate, parallel provision involving suits against the Administrator was also under consideration. The 1970 Amendments had provided in § 304(d) for an award of attorneys' fees in citizen suits, whenever the court determined that such an award was "appropriate." The purpose of this provision was both to encourage legitimate public interest suits (against industry or the agency) and to discourage harassing suits by allowing for costs to be imposed against the plaintiff in such circumstances. S. Rep. No. 91-1196 at 38, 91st Cong., 2d Sess., reprinted in 1 CAA Legislative History 397, 438 (1974).

Prior to the 1977 Amendments interest was expressed by industry and environmental organizations in extending this provision to suits brought for the purpose of reviewing agency rulemaking, and other similar actions, under § 307 of the Act. As with § 304, it was argued, such suits would serve to promote the public interest by serving as a check against unreasonable rulemaking. This ultimately resulted in the enactment of § 307(f) which allows for a similar award, again whenever a court determines that it is "appropriate;" and the stated purposes are essentially the same as in § 304: "to prevent harassment of innocent parties," and to "reimburse citizens who seek to enforce the law." S. Rep. No. 94-717 at 82-3, 94th Cong., 2d Sess., reprinted in 6 CAA Legislative History 4701, 4783-84 (1978).

[87]See Alyeska Pipeline Co., v. Wilderness Society, 421 U.S. 240 (1975); "Awards of Attorneys' Fees by the Federal Courts (Part I)," 6 ALI-ABA Course Materials J. 95 (1982).

[88]Id.

[89]See, e.g. E. Larson, Federal Court Awards of Attorney's Fees 257, n. 5 and Appendix C (1981).

[90]See, e.g., Clean Water Act § 505(d); Toxic Substances Control Act § 20; Safe Drinking Water Act § 1449(d); Noise Control Act § 12(d); Resource Conservation and Recovery Act § 7002(e). The Federal Insecticide, Fungicide, and Rodenticide Act; and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 do not contain a similar provision.

[91]The "Equal Access to Justice Act" appears at Title II of the "Small Business Export Expansion Act of 1980." Pub. L. 96-481; 94 Stat. 2321. Its provisions are codified at 5 U.S.C. § 504 and 28 U.S.C. § 2412. The effective date was October 1, 1981.

[92]H.R. Rep. No. 96-1418, 96th Cong., 2d Sess., reprinted in 1980 U.S. Code Cong. & Ad. News 4984-89.

[93]See H.R. Rep. No. 94-1175 at 277; Minutes of the House Committee on Interstate and Foreign Commerce, March 18, 1976; S. Rep. No. 94-717 at 82-3; Transcripts of the Senate Committee on Environment and Public Works, March 16, 1977. See Sierra Club v. Gorsuch, 16 E.R.C. 2113, 2120 (D.C. Cir. 1982) (Sierra Club awarded fees but did not prevail under § 307(f) of the Clean Air Act).

[94]See discussion of § 113(b), supra at 86.

[95]See discussion of cases on point in 6 ALI-ABA Course Materials J. 95 (1982). This policy is also provided in Canon 7-4 of the Code of Professional Responsibilities for Attorneys:

> The advocate may urge any permissible construction of law favorable to his client . . . his conduct is within the bounds of law, and therefore permissible, if the position taken is supported by any good faith argument for an extension, modification, or reversal of the law. However, a lawyer is not justified in asserting a frivolous claim.

[96]30 U.S.C. § 425(e).

[97]See 43 C.F.R. § 4.1294; Colloquy between Seiberling and Udall, Cong. Rec. H3826, April 29, 1977; H. R. Rep. No. 95-218 at 90, 95th Cong., 1st Sess.

[98]Interview on October 13, 1981 with Mark Squillace, Office of the Solicitor, Department of Interior.

[99]43 C.F.R. §§ 4.1294(c) and (d). See also 43 Fed. Reg. 34385-86 (Aug. 3, 1978); H.R. Rep. No. 95-218 at 311, 95th Cong. 1st Sess.

[100]Supra note 91.

[101]H.R. Rep. No. 96-1418, 96th Cong., 2d Sess., reprinted in 1980 U.S. Code Cong. & Ad. News 4984, 4994.

[102]The rejected standard had been offered by the Department of Justice as a compromise to the standard ultimately enacted. Department opposition had been particularly strong. In a statement before the House Committee on Small Business (May 1, 1980), Alice Daniel, Assistant Attorney General, Civil Division, argued that such legislation could cost taxpayers well over 100 million dollars a year, that it would be overreaching in its disruption of government enforcement, that it would be more efficient to eliminate bad regulations and improve the regulatory process than to establish disincentives to enforcement; and that establishing a presumption against the reasonableness of a regulatory action departed from a long valid tradition without justifiable cause.

In its report on H.R. 6429 (S. 265), the House Committee on Small Business indicated that placing the burden on a prevailing party to challenge the reasonableness of the underlying agency action would be deterrent to small business, and would thwart Congress' interest in ensuring that such rights be vindicated. The Report goes on to note:

> The standard and burden of proof in S. 265 represents an acceptable middle ground between an automatic award of fees and the restrictive standard proposed by the Department of Justice. It presses the agency to address the problem of abusive and harassing regulatory practices. It is intended to caution agencies to carefully evaluate their case and not to pursue those which are weak or tenuous. At the same time, the language of the section protects the government when its case, though not prevailing, has a reasonable basis in law and fact. Furthermore, it provides a safety valve where unusual circumstances dictate that the government is advancing in good faith a credible, though novel, rule of law.

H.R. Rep. No. 96-1418 at 13-14, 96th Cong. 2d Sess., reprinted in 1980 U.S. Code Cong. & Ad. News 4984, 4993.

[103]Interview on January 27, 1982 with Don Stevers, Department of Justice.

[104]Id.

[105]Facts involving the Apache Powder case were derived primarily in the following interviews: interview with Barbara Brandon, former Attorney, Department of Justice, January, 1982; interview with Craig

Litman, Attorney, EPA Region IX, January, 1982; interview with Amy Coy, Counsel for Apache Powder from Evans, Kitchel and Jenckes, Phoenix, Arizona, February 3, 1982.

[106]Letter to Marvin B. Durning, Esquire, Assistant Administrator for Enforcement, EPA, from James W. Moorman, Assistant Attorney General, Lands and Natural Resources Division, Department of Justice (May 26, 1978); "Region IX Position on the Confession of Error by the Department of Justice in U.S. v. Apache Powder Co., Civ. No. 78-058, in the United States District Court for the District of Arizona," unpublished EPA document.

[107]Supra note 103.

[108]Interview with Sharon Green, General Accounting Office, January 27, 1982. The Judgment Fund utilized for § 113(b) is the same fund from which Silvex indemnification claims under § 15 of the Federal Insecticide, Fungicide, and Rodenticide Act have been paid. See discussion supra at page 33.

[109]Id.

[110]Amy Coy supra note 105.

[111]Barbara Brandon supra note 105. A recent estimate of the average award for judicial proceedings generally, excluding tax cases, was approximately $16,000 for attorney fees and $2,000 for other costs. Congressional Budget Office, "Cost Estimate for S.265, the Equal Access to Justice Act," July 18, 1979, reprinted in Sen. Rep. No. 96-253, 96th Cong., 1st Sess., at 10-12.

[112]See Environmental Protection Agency, "Justification of Appropriation Estimates for Committee on Appropriation, Fiscal Year 1983" A-106-117.

[113]Amy Coy supra note 105.

[114]Id.

[115]Interview with Edward Reich, Director, Division of Stationary Source Enforcement, Environmental Protection Agency on September 22, 1981.

[116]Amy Coy supra note 105.

[117]EPA internal concurrence requirements for all judicial actions are rigorous. See "Draft Memorandum from EPA Administrator Anne M. Gorsuch on General Operating Procedures for Civil Enforcement Program," reprinted in BNA Environmental Reporter, Current Developments (May 21, 1982) at 78-85. In addition, Department of Justice

review is even more demanding. Interviews with Jeffrey Miller of Bergson, Borkland, Margolis and Adler (Former Acting Assistant Administrator for Enforcement, Environmental Protection Agency) (December, 1981) and Angus MacBeth of Bergson, Borkland, Margolis and Adler (Former Assistant Attorney General, Lands and Natural Resources Division, Department of Justice (December, 1981). See also "Memorandum of Understanding on Civil Enforcement Between the Justice Department and the Environmental Protection Agency" (June 13, 1977), reprinted in BNA Environment Reporter, Federal Laws 41:2401; Memorandum to Regional Administrators from Kathleen Bennett (December 29, 1981) (emphasizes that enforcement should be focused on significant violators that have been pre-selected with state assistance and that states should be encouraged to take the lead).

[118]Infra Section IV, notes 73-76. Most complaints related to the underlying regulations and EPA interpretations of congressional policy. However, Attorney George Freeman of Hunton and Williams, a Richmond, Virginia law firm that actively represents industrial and electric power facilities in proceedings involving EPA regulations, raised several complaints relating to EPA negotiating policies and the use of civil penalty authority. Senate Oversight Hearings, June 4, 1981, part 2, No. 97-H12, 97th Cong., 1st Sess. at 479-482.

[119]Reich supra note 115; Miller supra note 117.

[120]Infra Section IV, notes 73-76. Other sources consulted include BNA Environment Reporter, Cases (vols. 14-16 through May 21, 1982), Current Developments (May 1, 1979 - May 21, 1982).

[121]Supra note 117.

[122]Id.

[123]Supra notes 112 and 117.

[124]Reich supra note 115. Miller supra note 117. Interview with Richard Wilson, Environmental Protection Agency, September, 1981.

[125]A provision in the Senate version of the "Equal Access to Justice Act" would have required payment from previously appropriated funds and would not have allowed an appropriation specifically for the purpose of an attorney fees award. See S. 265 §§ 3(d) and 4(d)(4), 96th Cong. 1st Sess. However, this requirement was not included in final legislation.

[126]See discussion supra at 67.

[127]33 U.S.C. § 1321.

[128]Clean up of hazardous substance spills, but not oil, is now covered primarily by the Comprehensive Environmental Response, Compensation and Liability Act of 1980. 42 U.S.C. §§ 9601 et seq.

[129]Executive Orders 11735 (August 3, 1973) and 12316 (August 14, 1981) delegate presidential authorities and responsibilities for carrying out the provisions of § 311 and CERCLA. Executive Order 12316, § 1, provides that the National Response Team under the National Contingency Plan will include representatives of the Department of State, Department of Defense, Department of Justice, Department of the Interior, Department of Agriculture, Department of Labor, Department of Health and Human Services, Department of Energy, Environmental Protection Agency, Federal Emergency Management Agency and United States Coast Guard. Other specific agencies with important roles under § 311 include the Public Health Service and the Federal Maritime Commission.

[130]The § 311 defenses are very strictly construed and apply only if the discharger has had no part at all in causing the discharge. See U.S. v. Bear Marine Services, 16 E.R.C. 1953, 1956, n. 3 (E.D. La. 1980); Sabine Towing & Transportation Co., Inc. v. United States, 16 E.R.C. 2081 (U.S. Ct. Cl. 1981); United States v. LeBeouf Brothers Touring Co., 621 F.2d 787, rehearing den., 629 F.2d 1350 (5th Cir. 1980), cert. den., 452 U.S. 906 (1981).

[131]33 U.S.C. § 1321(i) (Supp. 1981).

[132]See Report of the Senate Committee on Public Works accompanying S.7, No. 91-351 (August 7, 1969) 91st Cong., 1st Sess., at 17-19. Note, that the Court of Claims recently rejected an argument that the remedial purpose of § 311(i) required a permissive reading of an exception listed in § 311(i)(1). Sabine Towing & Transportation Co., Inc. v. United States, supra at 2084.

[133]See discussion infra at 90. It has also been argued that cost savings in cleanup is an important factor. Early response may avoid the cost of more extensive cleanup. But also, it is a common perception in the private sector that a profit oriented enterprise will attain more effective cost control. In addition, federal procurement requirements may result in additional costs when the USCG or EPA undertakes cleanup. On the other hand, it is possible that § 311(i) would encourage more extensive cleanup costs by a private party than the government would be willing to incur. See discussion infra at 91.

[134]P.L. 91-224, 84 Stat. 91. See Sabine Towing & Transportation Co., Inc. v. United States, supra at 2082.

[135]P.L. 92-500, 86 Stat. 862.

[136]P.L. 95-576. Regulations listing hazardous substances were promulgated on March 13, 1978 at 43 Fed. Reg. 10479 (40 C.F.R. § 116); regulations establishing reportable quantities were promulgated August 29, 1979 at 44 Fed. Reg. 50776 (40 C.F.R. § 117).

[137]42 U.S.C. §§ 9601 et seq.; P.L. 96-510; 94 Stat. 2767.

[138]CERCLA does not necessarily preempt the regulation of hazardous substances under § 311. See CERCLA § 304(c). Except for the transfer of funds provided in CERCLA § 304(b), EPA and the USCG have agreed to utilize the Hazardous Substance Response Fund under CERCLA rather than the § 311(k) fund for hazardous substance response because of the additional funds available under CERCLA. See EPA-USCG "Reimburseable Agreement for Funds Expended by 311(k) Pollution Fund on Behalf of Section 104 of CERCLA," signed by Michael B. Cook, EPA (April 24, 1981), and by W.E. Caldwell, USCG (April 20, 1981). Nevertheless, it is arguable that claims under § 311(i) may still be made for the 297 designated substances under § 311. See infra, note 170.

[139]S. 7, § 12(j). See 1970 U.S. Code Cong. & Admin. News at 2720.

[140]Id. at 2726.

[141]One model appears in an oil industry sponsored non-statutory solution to public concerns involving the increasing frequency of oil spills. Tanker owners devised an international voluntary plan entitled "Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution (TOVALOP)." Under this plan, participating tanker owners would agree to reimburse the government for cleanup costs up to a stated maximum in the case of negligent spills and would expect reimbursement for cleanup expenses for non-negligent spills.

Another model exists in the 1969 Convention of Civil Liability for Oil Pollution Damage, Article V, 8, reprinted in BNA: International Environment Reporter, Reference File, Vol. 1, 21:1501. Although an individual ship owner is responsible for constituting the fund under this convention, Article V, 8 treats voluntary cleanup expenses incurred by the owner with equal rank to other claims against the fund. (As of July 1980 the United States was not a party to the Convention.) See also, the 1971 Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, reprinted in BNA: International Environment Reporter, Reference File, Vo. 1, 21:1701, which established an oil spill damage compensation fund financed by contributions of member nations. Article 4 provides indemnification for voluntary cleanup in certain circumstances. (As of September 1977 the United States was a party to this Convention.)

[142]Need for the provision is mentioned only once -- by the American Waterways Operators, Inc.

[143]See, for example, Hearing on H.R. 85, No. 96-26, 96th Cong. 1st Sess. at 194 (testimony of Swep Davis) September 26, 1979; Committee Report on H.R. No. 96-172, 96th Cong. 1st Sess., reprinted in 1980 U.S. Code Cong. & Admin. News at 6184-6186 (legislative history to CERCLA); Regulations on Determination of Reportable Quantities for

Hazardous Substances, Preamble, 44 Fed. Reg. 50776 (August 29, 1979); Memorandum from Christopher J. Capper and William A. Sullivan, Jr. to Regional Administrators (February 23, 1982) at 5, 9; EPA pamphlet, "EPA's Emergency Response Program" (HW-3) (April, 1982); it is also an implicit facet of EPA's recently published "Guidelines for Using the Imminent Hazard, Enforcement and Emergency Response Authorities of Superfund and Other Statutes," 47 Fed. Reg. 20664 (May 13, 1982).

[144]Report of the Senate Committee on Public Works accompanying S. 7, supra at 17.

[145]43 U.S.C. §§ 1651 et seq.

[146]33 U.S.C. §§ 1501 et seq.

[147]43 U.S.C. §§ 1801 et seq.

[148]42 U.S.C. §§ 9601 et seq. There are numerous other legal authorities that may apply to the prevention and cleanup of oil and hazardous substance spills. See, e.g., 40 C.F.R. Part 1510, Annex VII.

[149]For a brief comparison of the four oil spill fund statutes, see Musgrove, Lee, Reisch, Blodgett and Armitage, "Compensation and Liability Legislation for Victims of Toxic Substance Pollution: A Comparison of Proposals," (September 16, 1979), reprinted in hearing on H.R. 85, No. 96-26, 96th Cong. 1st Sess. (September 26, 1979) at 442-44.

[150]Outer Continental Shelf Lands Act Amendments of 1978 (OCSLA) § 303(b)(1)(A); Deepwater Port Act of 1974 (DWPA) § 18(f)(5).

[151]OCSLA § 303(b)(1)(B); DWPA § 18(f)(2).

[152]Trans-Alaska Pipeline Authorization Act of 1973 (TAPAA) § 204(b). See Alyeska Pipeline Service Co. v. U.S., 16 E.R.C. 1812 (U.S. Ct. Cl. 1981).

[153]See TAPAA § 204(c).

[154]Proposed oil "Superfund" legislation in 1979 was justified in part as a means of unifying a "patchwork of overlapping, inconsistent Federal and State laws." Letter to Hon. Thomas P. O'Neill, Jr. from Brock Adams (Secretary of Transportation), March 20, 1979, forwarding H.R. 29 to Congress, reprinted in House Hearings No. 96-16, March 13, 1979, at 105.

[155]H.R. 85 was passed by the House in 1980, but not the Senate. It was introduced again in 1981 but was not acted on by the House or the Senate. It has not been reintroduced in 1982. Interview with

Suzanne Bolton, Subcommittee Staff, May 25, 1982. A more recent bill, H.R. 5906, currently under active consideration, would amend the Outer Contential Shelf Lands Act to impose an overall limit of $75 million on the liability of owners and operators for damages and cleanup costs. As explained, this would facilitate the insurability of oil drilling facilities. Id.

[156]Major issues arising in a legislative debate on the oil Superfund legislation include:

- the ability to minimize defenses to liability;
- the need to impose stricter penalties to help prevent spills, as well as to encourage prompt mitigation and cleanup efforts;
- the need for a larger fund to finance cleanup when responsible parties cannot be identified;
- the need for expanded provisions relating to consequential damages and damages incurred by third parties;
- the need for state reimbursement and legislative preemption;
- the use of fees to finance the fund (amount, to whom charged, how managed, etc.); and
- limits on liability and defenses.

House Hearings No. 96-16 (March 13, 14, July 31, September 13, 1979); No. 96-26 (September 26, 1979); No. 96-114 (June 19, August 17, October 10, 11, 1979). Most of these issues were ultimately addressed under CERCLA, which grew out of the oil Superfund legislative efforts but ironically was enacted without oil spill coverage.

[157]House Hearing No. 96-16, supra at 66-77. Under § 102 the Department of the Treasury would be responsible for administering the fund, which would be financed by a fee charged to refiners and export/import terminals. Other aspects of the law would be implemented by the Department of Transporation, except that private insurance or claims adjustment organizations would be relied on to process claims. A formal administrative review procedure would apply in the case of claims disputes, while federal cost recovery and penalty collection proceedings would be handled through the Department of Justice.

[158]See Congressional Quarterly, Almanac -- 1980 at 584-93.

[159]Hearings Before the Subcommittee on Transportation and Commerce of the House Committee on Interstate and Foreign Commerce on H.R. 4571, H.R. 4566, and H.R. 5290 (June 19, 1979), No. 96-114 (1980) at 216-246.

[160]Section 7003 was thought to be ineffective because of the difficulty in identifying the responsible party, the financial inability of responsible parties to cover the costs of remedial action, the difficulty in sustaining the legal burden of demonstrating that the hazard is "imminent and substantial," and the time lapse that occurs during trial. Aside from the problems of limited coverage, § 311 and the emergency powers provision of the Clean Water Act, § 504, were criticized because they contained inadequate funds to allow for effective action by EPA -- $35 million under § 311, and $10 million under § 504 compared to an estimated need of as much as $6.1 billion to address inactive and abandoned hazardous waste dump sites alone. Similar procedural and funding constraints were said to exist in other hazardous substance control statutes, such as §§ 112 and 303 of the Clean Air Act. Id.

[161]See 40 C.F.R. § 300.25(d), 47 Fed. Reg. 31207 (July 16, 1982).

[162]Two types of funding mechanisms are available for preauthorized expenses. A cooperative agreement may be established with states and political subdivisions; and contracts may be given to private parties. If an emergency exists up to $2,500 may be made available to persons not already on EPA's preferred contractor list; and up to $50,000 be made available to preferred contractors. Interim Emergency Procurement for Hazardous Substance Response Program (undated EPA document).

[163]These factors were suggested in discussions with numerous state and federal agency staff involved in the implementation of CERCLA.

[164]Supra notes 159, 161, and 163. See also "Guidelines for Using the Imminent Hazard, Enforcement and Emergency response Authorities of Superfund and Other Statutes," 47 Fed. Reg. 20664 (May 13, 1982); House Hearing on "Implementation of the Comprehensive Environmental Response, Compensation, and Liability Act of 1981" No. 97-H31, 97th Cong. 1st Sess. (July 8, 1981), statement of Congressman Florio, at 5-6.

[165]Interview with Swep Davis, Environmental Testing Corporation (Former Associate Assistant Administrator for Water and Waste Management, EPA), May 3, 1982.

[166]See House Hearings, No. 97-H31, supra note 164.

[167]Information derived from a review of case files in the U.S. Court of Claims. ICF Draft Memorandum, "Cost Associated with § 311(i) of the Clean Water Act," March 8, 1982 for EPA's Office of Toxic Substances, Regulatory Impacts Branch.

[168]Id.

[169]See, e.g., House Hearings on Coast Guard Authorization, F.Y. 1982 (H.R. 2559) and Oversight, March 16, 1981, H. Rep. No. 97-2, 97th Cong. 1st Sess., 251, 298, 302. It should be noted that such responsibilities exist under OCSLA and DWPA. However, implementation experience is too limited to allow for evaluation at this stage.

[170]Interviews with: Commander George Brown, USCG, 12th District and Commander Skip Omstead, USCG, 11th District, January 27, 1982.

[171]See, e.g., Quarles Petroleum Co. v. United States, 551 F.2d 1201, 1204 (U.S. Ct. Cl. 1977) (sets out elements of § 311(i) claim).

[172]Interview with Commander Adams, USCG, March 22, 1982.

[173]Id.

[174]Id.

[175]In 1979 EPA estimated that from 700-1,200 chemical spills occured each year which would be subject to § 311 regulation. Statement of Barbara Blum, Deputy Administrator, House Hearings on H.R. 4571, H.R. 4566, and H.R. 5290, No. 96-113, 96th Cong. 1st Sess. at 225.

[176]The continued availability of a remedy under § 311(i) to a discharger of contaminants covered under CERCLA depends on whether § 311(i) in a particular case is determined to be in conflict with CERCLA. See CERCLA § 304(c). Such an argument might be made in the case of expenses not authorized as consistent with the national contingency plan. See CERCLA § 111(a)(2). Note, however, that special relief in such a situation might be available under CERCLA § 111(b).

[177]Adams supra note 172.

[178]See § 311(j).

[179]40 C.F.R. part 112; 33 C.F.R. part 154. Hazardous substance spill prevention regulations do not exist and are not included on the most recent regulatory agenda. See 47 Fed. Reg. 15702 (April 12, 1982).

[180]Section 311(b)(5) provides for up to $10,000 in fines and one year of imprisonment for failure to report a discharge, and § 311(b)(6) requires an assessment by the USCG of up to $5,000 as a civil penalty for each offense and, alternatively, allows for EPA to pursue in court penalties not exceeding $50,000 per discharge (or not exceeding $250,000 if willful negligence or misconduct was involved). In addtion, § 311(j) allows for an administrative penalty of up to

$5,000 for each violation of prevention, containment and removal regulations.

Section 103(a) of CERCLA provides for up to $10,000 in fines and one year of imprisonment for notification violations, and $20,000 in fines and one year of imprisonment for record keeping violations. Failure to comply with an abatement order under § 106 may result in up to a $5,000 penalty for each day of violation; and under § 109 up to $10,000 per day may be assessed against a person who has failed to comply with financial responsibility requirements under § 108. If a person fails to conduct required removal or remedial actions, pursuant to § 107(c)(3) he may be liable for punitive damages that amount to three times the amount of costs incurred by the Hazardous Substance Response Fund.

[181]This was a conclusion of the First Report of the President's Panel on Oil Spills. Executive Office of the President, Office of Science and Technology, "The Oil Spill Problem," (undated publication) at 4.

[182]Incentives other than § 311(i) already exist, including foreknowledge that defenses to liability are very narrowly construed, possible liability for unreasonable costs of cleanup if undertaken by the government, treble damages (under CERCLA § 107(c)), potential state and common law liability and concerns over public image.

[183]See discussion supra at 83.

[184]Note, however, that the Trans-Alaska Pipeline Authorization Act of 1973, 43 U.S.C. §§ 1651 et seq., does not provide an act of God or third-party-negligence defense. The legislative history notes that stricter liability standards are warranted because of the enormous size of tankers expected to transport oil from Alaska and the increased risk, therefore, of high damages to property and natural resources. 1973 U.S. Code Cong. & Admin. News. at 2530.

[185]See, e.g., City of Pawtuckett v. United States, 211 Ct. Cl. 324 (1976); Proctor Wholesale Co. v. United States, 215 Ct. Cl. 1049 (1978); Chicago, Milwaukee, St. Paul & Pacific Railroad Co. v. United States, 575 F.2d 839 (U.S. Ct. Cl. 1978).

[186]See text and notes, supra at 80.

[187]See text and notes, supra at 78.

[188]Supra note 136.

[189]See 40 C.F.R. § 300.25(d), 47 Fed. Reg. 31207 (July 16, 1982).

[190]See "Guidelines for Using the Imminent Hazard, Enforcement and Emergency Response Authorities of Superfund and Other Statutes," 47 Fed. Reg. 20664 (May 13, 1982).

[191]It should be noted that persons involved in the administration of both CERCLA and § 311, in EPA and the USCG, have stated that they prefer the administrative ease of § 311. Objections range from the complexity of the claims and appeals procedures, to the difficulty of implementing procurement requirements. It is generally recognized that a program of the size of CERCLA ($1.6 billion over a five-year period) merits more careful control than one the size of § 311 ($100 million over a ten-year period). However, it was suggested that a spill response program requires special flexibility; and that this need is overshadowed by combining it with the long-term remedial program required for abandoned waste sites. It is possible that such concerns will be less important as the respective EPA and USCG staffs gain experience in implementing the new law.

IV. EVALUATION OF POTENTIAL LOSS CATEGORIES

A. INTRODUCTION

This section of the report concerns the search for potentially indemnifiable EPA actions in areas other than merely extensions to existing EPA indemnity programs. In order to determine whether there are circumstances which might justify such indemnification, two research techniques were used. First, categories of events were identified that appeared most likely to contain indemnifiable situations. Second, specific examples of allegedly indemnifiable situations were sought to sharpen the analysis and assess the seriousness of the problems. In each specific case for analysis, indemnification factors identified in previous research were applied to determine the potential arguments justifying and opposing the need for indemnification.

For the first technique, the easiest general category of events to define were those in which some losses are already indemnified under existing EPA programs. (This category was covered in the previous chapter as "extensions" of existing programs.) Another category involved situations defined to be similar, but not identical, to existing programs. Still another category concerned situations identified by the convergence of several of the factors that had been determined to be important in earlier phases of the study. For example, "emergency action" was chosen because it presents an increased risk of agency error due to the speed with which the agency decision must be made, and because procedural due process may of necessity be suspended. In addition, the agency may desire to stimulate speedy action on the part of outside parties during emergencies, and this may warrant use of indemnification as an incentive.

In undertaking the search for potentially indemnifiable situations, every statute and major regulation implemented by EPA were reviewed. Discussions were held with past and current EPA staff to learn about the practical operation of the regulations, and particularly whether there have been or might be indemnifiable losses. The categories identified in the course of the study guided the search, but were also refined and redefined as additional incidents were identified or reconsidered.

Industry sources were also consulted for identification of potentially indemnifiable losses. This effort included a review of surveys and reports on regulatory problems in general, including many that had not specifically addressed indemnification as a solution to any regulatory problem.[1] In conjunction with this review, major industry trade associations were contacted. Association representatives often referred us to particular members who also provided comments and information. As a result, a fairly broad perspective of current industry attitudes toward EPA regulation and the need for indemnification was obtained.[2]

Based on the review of EPA statutes and regulations and consultation with Agency and industry spokespersons, the following cate-

gories were selected for more detailed evaluation to determine the need for indemnification for potential losses due to:

- Disclosure of confidential business information;
- Delays in Agency action;
- Conflicting and overlapping requirements;
- Error or overbreadth in Agency emergency action;
- Unreasonable administrative enforcement action; and
- Changes in Agency policy.

Each loss area was selected partly because it was a topic of major complaint or concern on the part of industry or the agency. The loss categories provide a fairly diverse representation of loss types for purposes of analysis, but an evaluation of every industry complaint or potential loss would, of course, have been impossible within the scope of this study.

Of the three types of indemnification identified and evaluated in the course of this study (equitable, disincentive, incentive), almost all of the categories chosen for analysis fall within the "equitable indemnification" category. This is consistent with the actual historical distribution of indemnification claims presented to Congress over the years.

In considering the following analysis, one must keep in mind that government generally does not pay for the cost of compliance with regulatory requirements. Nor does government normally pay for the consequences of the burdens of regulations unless those burdens are so great as to constitute a "taking" of property through the almost complete destruction of its value. As the U.S. Supreme Court recently restated in Andrus v. Allard, a Fifth Amendment taking case:

> Suffice it to say that government regulation -- by definition -- involves the adjustment of rights for the public good. Often this adjustment curtails some potential for the use or economic exploitation of private property. To require compensation in all such circumstances would effectively compel the government to regulate by purchase. "Government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law."[2a]

There are very limited exceptions to these general rules. For example, the federal government provides grant money to assist municipalities in complying with the Clean Water Act's wastewater treatment requirements. However, this involves the federal government assisting local governments, rather than aiding private regulated parties. A narrow example of government paying for the indirect burdens of regulations is the recently-eliminated beekeepers indemnification program in which payments were made to beekeepers for the consequences of the elimination of DDT from the marketplace.

One must also keep in mind that the federal government already has provided a broad-based indemnity scheme covering many areas of potential loss to private parties. Specifically, the Federal Tort Claims allows suits for negligence with certain exceptions, and the Tucker Act allows for recovery of contract claims and implements recovery of claims under the Constitution's Fifth Amendment Taking Clause.

Thus, our search for potentially indemnifiable circumstances focused on the narrow, gray area of exceptional circumstances which theoretically fall outside the existing indemnity schemes provided by the FTCA and the Tucker Act, and yet do not fall into an area of loss which is considered not to be compensable. In other words, for indemnity to be recommended under this study, either the limitations to the existing indemnity schemes must be removed (e.g., by repealing the discretionary function and misrepresentation exceptions to the FTCA), or unique circumstances must be found which justify an exception to those limits.

An example of the possible wholesale removal of an existing limitation would be to permit compensation for governmental "error" in the area of policy formation (rather than for just operational negligence). This would involve repeal of modification of the discretionary function exception to the FTCA's waiver of sovereign immunity. This, of course, would pose very serious practical problems of determining whether a discretionary policy judgment among several alternatives can be deemed "erroneous." Unlike the question of operational negligence which involves measuring government action against a more definite standard (e.g., the terms of the regulation or statute itself), the issue of policy error is complicated by the lack of any clear-cut way of deciding that the policy judgment was "erroneous" at the time it was made. Furthermore, the threat of having to pay compensation might seriously impair the policymaker's judgment and have a chilling effect upon the consideration of various policy alternatives.

In sum, there is no support for a recommendation to repeal the discretionary function exception and authorize a vague, broad standard of government liability for "erroneous" policy decisions.

B. INDEMNIFICATION FOR DISCLOSURE OF CONFIDENTIAL BUSINESS INFORMATION

1. Description of the Problem

Concern over possible industry losses resulting from disclosure of confidential business information (CBI) submitted to regulatory agencies has resulted in efforts to get Congress and the federal judiciary to define CBI more precisely and to narrow the scope of authorized CBI disclosure or use.

Although unauthorized disclosures may cause some worry, industry seems to be primarily concerned with authorized disclosures under the Freedom of Information Act (FOIA) or other statutes. This is clear from efforts to restrict or block such authorized disclosures. Almost no industry interest has been shown in providing indemnification to private parties suffering damage from either authorized or unauthorized government disclosure of CBI.

Much industry legislative effort is now aimed at strengthening the CBI exemption to the Freedom of Information Act.[3] Amendments to FIFRA have also been advanced that would alter the disclosure provisions of §§ 3 and 10[4] by providing for treble and punitive damages against a private party who properly receives CBI for a limited purpose but then improperly discloses the information.[5]

Extensive, but generally unsuccessful, industry efforts have also been undertaken in the courts to disallow or restrict intentional Agency use and disclosure of pesticide data under §§ 3 and 10 of FIFRA.[6] Some companies have also challenged EPA's authority to permit contractors to gain access to CBI while assisting EPA with inspection efforts, but only one such judicial challenge has been successful thus far.[7] No complaints were found concerning EPA contractors wrongfully disclosing CBI.

The CBI issue at EPA has focused on pesticides and toxics because of Agency acquisition of sensitive product information in those programs, and because the CBI issue received extensive congressional scrutiny while TSCA was being debated.[8] Elaborate FOIA procedures for authorized EPA release of CBI are now provided under 40 C.F.R. Part 2, and the Agency has developed both TSCA and FIFRA security manuals designed to safeguard CBI obtained under those statutes.[9] In addition to EPA's provisions for employee discipline, there are criminal sanctions for intentional unauthorized disclosures. Title 18 U.S.C. § 1905 is a general trade secrets disclosure prohibition, and TSCA, FIFRA, RCRA, and CERCLA also contain criminal sanctions against wrongful disclosure.[10]

Despite detailed EPA security procedures and apparently very few disclosure incidents, there are indications that some industry repre-

sentatives are still not comfortable with Agency assurances of adequate protection from unauthorized CBI disclosure. One industry representative contends that EPA's disciplinary procedures are not sufficiently severe to deter unauthorized disclosure by employees.[11] He also contends that potential criminal sanctions for unauthorized intentional disclosure do not serve as an effective deterrent.[12]

Knowledgeable EPA and Justice Department personnel knew of no claims filed against EPA seeking government compensation due to unauthorized (either intentional or inadvertent) release of CBI.[13] Nor do there appear to have been prosecutions or disciplinary actions for intentional and unauthorized disclosure of such information.[14]

The true number of improper disclosures may be difficult to ascertain however. Some disclosures may not be detected, and an affected company may be reluctant to come forward with a complaint for fear of bringing the information to the attention of competitors or weakening its trade secret status.[15] Furthermore, company management may fear that its stockholders would be upset that management had allowed the disclosure to occur.[16]

2. Evaluation

Indemnification has not generally been put forward as a remedy for the disclosure of CBI, though one knowledgeable industry representative has suggested use of such a remedy.[17] Most industry parties, however, seem to believe that payment of money damages does not deal adequately with the problem. Those concerned with the consequences of disclosure of CBI believe that the solution to such a problem is to prevent disclosure rather than to provide compensation. Industry thus places more emphasis on preventing submission of the information in the first place, or limiting the ability of the Agency to make legally authorized disclosures, than on ensuring effective EPA security and disciplinary provisions to protect against unauthorized or negligent disclosures.

Evaluation of an indemnification mechanism for CBI disclosure requires that distinctions be made about the various circumstances in which CBI can be disclosed. First, there is an important distinction between unauthorized and authorized disclosures. Second, unauthorized disclosures can be either negligent or intentional.

The rationale for indemnification can focus on the equitable need to provide compensation to the injured party, or on affecting the behavior of agency employees so as to prevent unauthorized disclosures, or on both. The former rational is most important with respect to authorized disclosures. It may be possible to permit necessary disclosure in a way that minimizes or eliminates the loss to the party whose CBI is released.[18] Thus, the key question with respect to authorized disclosures may be whether the burden imposed on the

injured party for the benefit of the public is one for which compensation should be paid.[19]

Because indemnification under the § 25(a) study mandate is not intended to cover payments that might otherwise be recovered in a tort action under the Federal Tort Claims Act, it is necessary to consider whether particular types of disclosure losses are already actionable under the FTCA. If disclosure would be judicially actionable, then consideration of indemnification is unnecessary. For the purpose of an FTCA analysis, there are three different categories of disclosure. In a case of intentional and unauthorized disclosure, the exception in 28 U.S.C. § 2860(h) arguably bars an FTCA action, although this precise issue has not yet been decided in the courts.[20] Exception (h) might similarly bar an action for negligent disclosure. Even if it does not, the injured party might have difficulty establishing the duty of care and proving that it had been breached.[21] Finally, certain intentional disclosures might be authorized or mandated by statute. For example, TSCA provides authority for release of CBI if it is necessary to protect the public health.[22] Because such disclosures are expressly authorized or required, they would not be actionable under the FTCA. Thus, only this last category of disclosure is clearly within the scope of indemnification under this study.

To the extent private parties are injured by wrongful government disclosure of CBI, the solution may not be to establish a special EPA indemnification program, but instead to amend the Federal Tort Claims Act specifically to permit suits for unauthorized disclosures.[23] In other words, if there is a problem, it is government-wide in scope and not unique to EPA, and should be dealt with through amendments to the FTCA or FOIA.[24] Any attempt to compensate for release of CBI would have to solve the administrative problem of how to measure the party's loss. The value of information, and expecially the loss of secrecy is speculative and difficult to ascertain. A compensation program would also have to overcome the reluctance of a company to advertise the release of its information by making a claim.

3. Conclusion

Two of the criteria discussed in Section III-A are particularly pertinent to this evaluation. CBI releases are clearly addressed more effectively by alternatives preventing them than by compensation afterwards. Also, an indemnification program would have very difficult administrative problems in defining the value of the release and in protecting the company from further damage in the course of pursuing its claim. Where existing alternatives are not fully satisfactory, government-wide solutions through amendments to the FOIA or the FTCA may be more appropriate to consider than an isolated EPA remedy.

No EPA indemnification program seems warranted for losses resulting from unauthorized disclosure of CBI. Evidence of such

unauthorized disclosures appears to be quite limited, and there are both criminal sanctions against intentional disclosure and elaborate security provisions under FIFRA and TSCA designed to safeguard CBI.

Relevant judicial decisions involving EPA have established that authorized disclosures by the Agency do not amount to unconstitutional takings or, in some instances, that the party does not have a property interest in the information.[25] Congressionally-authorized disclosures designed to protect the public health or welfare are comparable to other regulatory burdens not requiring compensation. In many cases, it may be possible to accomplish the needed disclosure, while at the same time protecting the affected party from loss or damage. Furthermore, much of the conflict over CBI disclosure involves defining the term. Indemnification would not be appropriate where Congress has already defined certain information as not constituting protected CBI or where Congress had given the Agency the discretion to make such a determination.

C. INDEMNIFICATION FOR DELAYS

1. Description of The Problem

(a) Delays in Promulgating Regulations

Although all types of delays in government action were considered in the course of this study, failure to meet congressionally-mandated deadlines for the promulgation of regulations were determined at an early stage to be inappropriate bases for indemnfication. Certainly indemnification on this basis would involve severe practical problems. Measuring losses and determining causation would be difficult. Ascertaining the particular regulation that would have been promulgated, had delay not occurred, would amount to pure speculation. Costs may be unacceptable, since great numbers of people are arguably adversely affected by the delay and therefore potentially entitled to indemnification. Such an indemnity scheme might also be highly disruptive of agency objectives. Moreover, a mandatory injunction forcing the agency to discharge a statutory and non-discretionary duty within a particular timetable is available and a preferable alternative relief mechnism that has been used in the past to deal with this problem. For example, in February 1982, EPA was ordered by the U.S. District Court for the District of Columbia to fulfill its statutory duty under the Comprehensive Environmental Response, Compensation, and Liablity Act of 1980 to promulgate guidelines for emergency response actions and to revise and republish the National Contingency Plan.[26] The court relied on the statute's mandatory requirement that EPA act within 180 days of the statute's enactment.

(b) Delays in EPA Permit Processing

Industry representatives have complained about delays in government permit processing, saying that these delays have increased costs of financing or construction and caused losses in opportunities and profits.[27] Industry sees the permit-delay problem as particularly accute in the environmental area because of the complexity of the environmental laws and the involvement of many different regulatory parties. This complexity, coupled with slow government action, has allegedly stretched out the total time period necessary for siting energy facilities and other industrial operations.

Several studies have indicated that the causes of delays in construction of new power plants and other facilities are not limited to regulatory problems. In one study, equipment-related and labor-related delays appeared to be much more important factors than regulatory delays such as changes in requirements or delays in obtaining permits.[28] Studies have also indicated that EPA permit processing appears to be reasonably swift, considering the complexity of the statutory requirements. For example, the average permit processing time for PSD permits has been reported to be less than six months from the

time of submission of a complete application to the time of issuance. (It takes about three months from the initial submission to the time the application is considered to be complete.)[29] Despite statistical evidence that EPA has a reasonably good permit-processing performance record, the Agency has undertaken substantial efforts to assess the validity of industry complaints and to evaluate possible improvements to make the permit-processing system more efficient.[30]

Theoretically, strict time deadlines could be established, and indemnification could be required whenever EPA misses these deadlines. However, such an approach would subject EPA to indemnification regardless of its fault and for delays outside the Agency's control. On the other hand, indemnification for losses due to permit-processing delays could be based upon EPA fault. Such indemnification would be premised on the permit applicant's right to timely review of its permit application and EPA's unreasonable failure to process the application within a certain period of time.

2. Evaluation

Both industry and EPA parties concerned with the problem of permit delays have focused on remedial solutions other than indemnification. For example, the Business Roundtable has concentrated on identifying potential structural changes to the Clean Air Act which would lessen the complexity and severity of permit requirements.[31] Within the Agency, efforts have been focused upon tracking the permit process and setting average and maximum performance times, reviewing possible changes in substantive and procedural requirements, reviewing particular regulations concerning the consolidated permit process, and attempting to manage the existing permit process more effectively.[32]

The importance of the alternatives to indemnification is heightened because of the substantial administrative difficulties with indemnification. Unlike the factual determinations necessary to FIFRA § 15, the determination that a loss was caused by permit delays and the measurement of damages would be extremely difficult. While increased construction costs resulting from delay might be measurable, the determination of lost opportunities and profits would be much more problematic. Of course, indemnification could be limited to construction cost or other readily measurable increases.

Another administrative problem would be to determine whether a delay had actually been unreasonable. Although the establishment of a strict time period for permit processing might provide a simple device by which to determine whether an indemnifiable delay had occurred, there would be a substantial problem in ascertaining the starting point for the time period to begin to run, because processing of the permit application may have to await submission of a more complete application. Frequently, applications are judged so incomplete that they must be returned to the applicant for additional information. A

similar problem arose in the debates over the proposed Energy Mobilization Board when it was supposed to establish a deadline after which a permit would become effective by default.[33] This approach was concluded to be impractical because of the difficulty in setting the starting date of the permit processing time period.

Another serious problem is that the incentives and disincentives resulting from indemnification may have an adverse impact upon the environmental objectives of the agency. An indemnification program might substantially shift the focus of agency personnel from the quality of permit review to the speed of that review. The allowable permit processing time might be inadequate for complex and controversial projects requiring careful evaluation and involving difficult judgments, and thus might foster the poorest decisions in the hardest cases. Other consequences might be to prompt EPA employees to waste time developing a "paper trail" with regard to the completeness of the application or in order to establish evidence that its delay was not unreasonable. EPA might also refrain from getting states to act as EPA's agent in certain situations because of the fear of being subject to indemnification for state actions.

A reverse type of indemnification is theoretically possible where fees are charged to regulated parties for the costs of permit processing. Under such an approach, the fee could be waived if EPA failed to process the permit within a specified time period. Alternatively, a higher fee might be charged for "speedy" permit processing. Rather than using indemnification as a penalty disincentive to the agency, a fee approach would involve a positive incentive analogous to the bonus that Amtrak pays rail lines for "on time" performance. Of course, such a scheme could not be used unless EPA were to impose permit-processing fees.[34]

3. Conclusion

Assuming that industry is suffering losses due to delays in EPA permit processing, an indemnification program would not be an appropriate remedial device to deal with the problem. There are five primary factors that weigh against the use of an indemnification program to remedy problems with permit delays.

First, the evidence does not show, in the aggregate, that an unreasonable amount of permit-processing delay is actually occurring. To the extent that there are delays in the development of new power plants or other industrial facilities, regulatory problems (including permit processing delays) are usually not significant factors in those delays. While there are some infrequent situations in which delay results solely from regulatory problems, the difficulties often result from the congressionally-determined burden of the requirements and the complexity of the system, rather than from unreasonable agency permit processing procedures or from convoluted regulations created by the agency.

Second, regulated parties usually do not have (statutory or regulatory) rights to have a permit processed within a particular time. If a required time period for processing is exceeded, then the affected party can bring an action for a mandatory injunction to remedy the problem.[35]

Third, to the extent that permit losses actually are resulting from permit delays, the generally preferred corrective solution is to improve and speed up the permit process instead of paying indemnification. Numerous agency efforts are now underway to accomplish the objective of improved permit processing, even without whatever stimulus is derived from the fear of indemnification.

Fourth, there would be substantial administrative problems involved in the use of indemnification as a remedy for permit delays. In particular, determination of whether the delay was unreasonable and the cause of the loss would be extremely difficult. Furthermore, the determination of the appropriate quantum of damages would be very difficult unless standards limiting claimants to measurable losses in specified categories were used.

Fifth, indemnification would establish counter-productive incentives and disincentives for the agency and the permit applicant. Indemnification would frequently also conflict with agency objectives.

D. CONFLICTS AND OVERLAPS

1. Description

Conflicting and overlapping regulatory requirements have been a principal target of regulatory reformers and, to a lesser extent, may serve as a basis for the payment of indemnification to those caught in the conflict, or forced to comply with two sets of regulatory requirements. In fact, however, regulatory conflict and overlap do not appear to be an important problem at EPA, relative to other regulatory issues. This is partly because all of the major environmental statutes include provisions directing that EPA coordinate its activities, both between separate divisions and with other agencies of the federal and state governments.[36]

Regulatory conflict occurs when compliance with one regulatory requirements results in the inability to comply with another requirement. Regulatory overlap occurs when separate regulations with similar objectives are aimed at a single activity or process.

2. Candidate Indemnifiable Situations

(a) Interacting Requirements

Interacting requirements are those where compliance with one requirement brings a party within the scope of regulations in another area. If the second regulation conflicts with the first, such that it is impossible to comply with both, then the interacting requirements have caused a loss which is impossible to avoid, and thus a candidate for indemnification. The Tris situation is alleged by some to fit this model of interacting requirements.[37]

A recent GAO study identified 20 instances of interacting requirements involving federal agencies, including four that involve EPA.[38] An example involving EPA is presented by the fact that as many as 26 of the wastes listed as hazardous under EPA's hazardous waste regulations are generated by the proper operation of water and air pollution control devices.[39] These devices capture toxic pollutants in the form of sludge which must be disposed of in accordance with EPA's RCRA regulations. This example is typical of interacting requirements in that compliance with air or water regulations creates the need to comply with RCRA standards. It differs from the Tris example, however, because RCRA does not prohibit the generation of toxic sludge, but merely subjects it to additional regulatory standards.

(b) Overlapping Jurisdiction

Overlapping jurisdiction occurs when two or more agencies or offices have requirements regarding the same product, substance or

process. The GAO identified 14 examples of overlapping jurisdiction problems, including six involving EPA.[40]

An illustrative example is presented by the fact that saccharin is listed as a hazardous waste under RCRA, because of its carcinogenic properties, while the FDA continues to approve it as a food additive. When two or more agencies or offices have jurisdiction over a single product or activity, the potential for inconsistent treatment such as this is increased. Overlapping jurisdiction therefore, may be thought of as forcing regulated parties to incur the added costs of complying with two sets of regulations, when it would arguably be more efficient for there to be a single "integrated" set of requirements.

(c) Duplicate Enforcement

Duplicate enforcement occurs when two or more agencies have responsibility for investigating complaints, issuing permits, or conducting inspections for similar or related purposes. The GAO found 18 examples of duplicate enforcement in its report, including 10 involving EPA.[41]

For example, both EPA and the states make inspections under both the Clean Air Act and the Clean Water Act. These inspections occur at different times and require that information be presented in different formats. A similar problem may be presented if a single enterprise must apply for and obtain two or more permits for separate agencies or offices. To the extent that these permits serve similar purposes, or enforcement actions are aimed at similar conduct, they force regulated parties to incur expenses not otherwise imposed.

3. Rationale for Indemnfication

The rationale for indemnification is slightly different for interacting requirements than for the other types of conflicts and overlaps. Where interacting requirements are the asserted basis for indemnification, the rationale is that compliance with one requirement forces the regulated party to comply with another requirement. Thus the regulated party has incurred a double expense, made necessary only because of the manner in which the first regulation operates. If the second regulation amounts to a total prohibition, then the affected party is caught in an impossible situation: compelled by one regulation to do what is prohibited by a second regulation.

With respect to overlapping jurisdications and duplicate enforcement, the rationale for indemnification is that regulatory activity designed to deal with the particular regulated party affected could be designed to achieve the same effect at lower cost to that party if only a single agency or office were responsible for the party's activity or product. Since it is the structure of EPA, rather than the nature of the regulated activity, that imposes the double compliance costs, these costs should be indemnified.

4. Evaluation of Indemnification

The GAO has concluded that the problems of regulatory conflict and overlap are not as serious as regulatory reform advocates assert.[42] Moreover, where they exist, they do not necessarily produce a loss, as that term is ordinarily defined. While compliance costs may be greater where regulatory conflicts and overlaps exist, when compared to the situation where a single office is responsible for controlling all aspects of a party's activities, these increased costs are not losses, in the traditional sense, because there is no reason to suppose that regulated parties are entitled to regulatory programs designed to minimize compliance costs. Indeed, EPA is certainly entitled to structure its regulatory efforts so as to minimize its own administrative costs or to minimize overall costs across industries and pollution sources. Government could hardly function if each regulated party were entitled to insist that all regulations, permits and enforcement action pertaining to the party be undertaken by a single agency or office. Certainly there is no implied right to such regulatory "integration," and indemnification based on a claim of such a right seems not to be appropriate.

Truly interacting requirements may well be deemed to justify indemnification in a particular case. However, none appeared in a review of EPA programs. At worst, the examples found represent compliance costs made necessary by reason of other regulatory standards. This is not normally regarded as a basis for indemnification, but rather an ordinary business consequence of any regulatory program. Thus, the equity rational for indemnification is unlikely to apply, except in unusual cases. On the other hand, the promise of indemnification may well deter EPA from adopting a regulation that would interact with some other regulatory mandate. If such a disincentive were desired, a full indemnification program would be needed in order to produce the necessary effect.

Nevertheless, at least in the absence of evidence that the problem of conflicting and overlapping requirements is a serious one, the available alernatives are capable of achieving the desired result. The various environmental statutes administered by EPA contain many provisions for avoiding conflicting and overlapping requirements. These avoidance mechanisms consist of either (1) rules for assigning primary responsibility to one regulatory regime when a conflict appears; or (2) requirements that regulatory actions be coordinated. They do not include disincentives to agency promulgation of conflicting and overlapping regulations. Thus, Congress has apparently expressed a preferred means of avoiding conflicting and overlapping requirements, not involving indemnification. The preference is consistent with the view that the promise of indemnification in situations such as that which allegedly occurred with Tris would unduly interfere with health and environmental protection. The alternative mechanisms designed by Congress do not pose the same potential for

interference with EPA objectives, are more readily administered by the Agency, and do not involve the potential for enormous expenditures. For these reasons, and indemnifty program can not be recommended in preference to the available alternatives.

E. EMERGENCY POWERS

Any action taken quickly in an emergency is more likely to have some untoward consequences than actions taken with enough time to investigate, deliberate and consult. If, in addition, agency action requires an immediate response from regulated parties, the possibility of loss is increased. The parties cannot avoid or reduce the loss by objecting before implemention of the agency order. A well known example of emergency agency action, requiring immediate response, illustrates the theoretical problems.

1. Birmingham Air Pollution Alert[43]

Birmingham has had a long history of air pollution problems because it is a mining and metallurgical center located between mountains which often prevent the dispersion of air pollution created by industry. At the time of the air pollution emergency in November, 1971, the state had just enacted, but had not yet implemented, an air pollution control law. The state was also drafting its State Implementation Plan, including its plans for handling air pollution emergencies. Thus, there was neither a federal nor a state regulatory structure, and no authority delegated to local officals to respond to the episode.

The local health department tried to obtain voluntary reduction of the particulate emissions causing the emergency. Some of the industrial sources responded, but those contributing most to the problem did not.[44] As it became evident that the efforts of the county health department were failing, and the Weather Service predicted a continuing inversion, EPA officals decided to use the emergency authority in § 303 of the Clean Air Act to force emission reductions. The provision had been in the Act since 1967, but had never been used. Nevertheless, EPA and Justice attorneys and local health officials put together the necessary papers in six or seven hours.

For reasons that are not entirely clear ten years later, none of the 23 industrial sources named in the Temporary Restraining Order (TRO) were informed that it was being sought. The judge granted the TRO at 1:45 a.m. on November 18 after an ex parte hearing. Soon after, the sources were telephoned to inform them of the order. Most were asked to postpone or reduce operations to the extent possible without damage to equipment, rather than to shut down completely. For example, the U.S. Steel Fairfield Works was required to increase coking time to the maximum extent possible, and to reduce emissions from open hearth furnaces by ceasing feed, but was allowed to maintain heat in the furnaces.[45] The TRO was in effect for 32 hours. By the time of the hearing set for the preliminary injunction, the weather had changed, bringing rain.

The attorneys for the affected facilities expressed indignation at the lack of notice and the midnight hearing. Some also complained

that their clients should not have been included in the order because they had installed pollution control equipment or were too far away to be contributing to the emergency. One attorney who represented eight or nine of the sources said that, if the order had lasted longer and greater losses had been incurred, they certainly would have sought indemnification for their losses.[46]

2. Evaluation

If it is true, as alleged, that some of the named facilities were not contributing to the air pollution emergency and thus were erroneously included in the order, an argument can be made for indemnification. Errors made in such a situation are more serious than at other times because they lead to irreversible harm. The affected parties had no opportunity to pursuade the Agency or the judge that they should be removed from the list. There was no notice, and no opportunity to prepare for the new regulation. (On the other hand, it was clear to all that the situation was serious. Apparently, visibility was so poor in places that driving was nearly impossible.) The order, though denominated a "temporary restraining order" had irreversible impact. There was no way to appeal or to have the TRO reviewed before it took effect.

For those properly addressed, indemnification would not be justified. Their costs were only those of complying with a proper Agency action taken to protect the public from an imminent health hazard. This was precisely the situation in which Congress had intended § 303 to be used.[47]

In this case, though there appears to have been some procedural unfairness and possible error, the loss was limited by the short period, and the way in which the order was written. It should be remembered that drastic action was taken only after requests for voluntary action had failed, and the situation threatened the health of a large population. Similar losses are possible in the future, but unlikely. The primary response to future emergencies will be made by the state under their SIP's. This will cure many of the problems of the emergency response in Birmingham.[48] The industry has had a good deal of notice of what will be expected as each level of pollution is reached. The triggers for successive stages of control are designated ahead of time. The regulations are developed with opportunity for comment and with the substantive assistance of the affected parties. Therefore, error will be less likely because of the consultation, and cooperation more likely since the sources helped write the plans.

Application of the criteria for decisions discussed in Section III-A, to a situation like Birmingham provides guidance for future incidents, though it is not clearly for or against payment of indemnification.

Providing indemnification for an individual incident would most likely have the objective of correcting an inequity. Thus, the first determination would be whether the agency action was indeed inequitable. This requires a collection of all the facts. In the Birmingham situation a decision-maker balanced the refusal of some of the sources to cooperate and the clear danger to the public health against the government's precipitous and perhaps overbroad action. No formula or criteria can substitute for an analysis of the particular facts.

Alternatives to indemnification are fewer during emergencies than at other times. For example, exceptions or waivers to agency orders might undermine the purpose of the action, and take too long to propose and approve. There are however, many ways to limit losses that might be incurred during an emergency, and the environmental statutes contain many examples. TSCA requires hearings before or within five days of emergency actions thus limiting the time an unchallenged emergency order could be in effect.

The language of the emergency powers sections make it clear that Congress has accepted greater compliance costs in an emergency than for ordinary regulations. Such expressions of congressional opinion should be taken into account in deciding what losses warrant indemnification.

The possibility that the payments of an indemnity might have a chilling effect on future agency action is more serious in relation to emergencies because the threat to public health is by definition imminent and substantial.

3. Emergency Authority Under Other Statutes

Virtually all pollution control statutes implemented by EPA have provisions similar to § 303 of the CAA. These provisions respond to the common need to act quickly to alleviate immediate threats to health or the environment that could not have been prevented by ordinary regulatory mechanisms. These extraordinary measures are most needed before the rest of the regulatory structure is in place, as demonstrated in the Birmingham incident, but there will continue to be accidents or occurrences not controlled by regulation.

Like the Air Act, the Clean Water Act now regulates most emissions of pollutants. Emergencies, however, are probably most likely with respect to unregulated emissions, although they can occur as the result of breakdowns of otherwise functioning processes, or other unusual situations. Under the Clean Water Act as well, internal and external review is required before taking action, even in emergency situations. Both Agency officials and the Department of Justice must approve requests to seek court orders. The judge acts as independent decision maker, balancing the threat to the public against the cost. The power to shut down an operation has only been used once under the

CWA, to temporarily halt operation of an FMC plant in West Virginia that was leaking large amounts of carbon tetrachloride into the Kanawa River. (It took three days to clear the request to apply for a TRO even though the drinking water of large populations downstream was seriously threatened.)[48a]

The Comprehensive Environmental Response, Compensation and Liability Act (Superfund) provides a coordinated response to emergencies caused by release of hazardous substances into the air, water, or land. It authorizes direct action by the government in cleaning up or containing a spill, as well as providing authority to issue a presidential order or seek injunctive relief. Private parties assisting in the cleanup may be reimbursed for their efforts under certain conditions. Many of the features of the new law should help to reduce unreasonable losses that might be imposed on private parties during environmental emergencies. Action based on the National Contingency Plan, like action under a regulation, will not surprise those whom it affects. It should also be less likely to be erroneous or unfair since the NCP was developed over a decade with wide participation. The ability of the agency to take direct action should also reduce burdens on private parties. Even in cases in which the government later sues responsible parties for reimbursement, the more leisurely determination of responsibility should prevent errors and overbroad orders.

The ability of the agency to take direct action creates a new source of liability: the losses that may be incurred by firms hired to clean up hazardous waste sites or spills. Handling hazardous waste is a dangerous and unfamiliar process, and potential contractors have refused to undertake cleanups without some indemnification from the government for their potentially large liability to third parties. Because commercial insurance is not available in the quantities necessary to cover potential losses, EPA has indicated that it will try to indemnify contractors for losses above the required one million dollars of commercial liability insurance.[48b] The indemnification clauses in the contracts are conditioned on the availability of funds.

4. Other Types of Emergency Resolution Provisions

Although Congress has provided a catch-all emergency mechanism in each environmental statute to address imminent and substantial harms, there are also usually other, more specific emergency response provisions in each statute. Often the agency can prevent or respond to an emergency without invoking emergency authority, for example through its enforcement powers. In many cases a pollution emergency will result from a release that violates a specific statutory prohibition (e.g., § 301 of the CWA) or the terms of a permit. Therefore adequate abatement authority will exist under the enforcement provision of the statute. In such cases the underlying standards are usually clear, and industry will have participated in the development of the regula-

tions or in permit negotiations. Enforcement actions are subject to internal review and provide opportunity to contest the action in court. Thus, there should be less of a chance of error or unreasonable action by the agency.

5. Conclusion

There does not seem to be a justification for further indemnification programs related to emergencies at this time. EPA has rarely used its emergency authority in the past, and there is no reason to believe that use of the conventional authorities will increase. A new and comprehensive law governs response to emergencies generated by release of hazardous substances. It appears to limit the possiblities for unwarranted burdens on private parties. Until more experience indicates a need for assistance beyond Superfund and the provisions for clean up contractors, no new indemnification program should be recommended.

F. UNREASONABLE ENFORCEMENT

1. Introduction

Under § 113(b) of the Clean Air Act, and other similar statutes, a person subject to unreasonable enforcement may recover attorneys fees and other reasonable costs of litigation. He may also recover similar costs associated with formal agency adjudicative actions under the Equal Access to Justice Act (although the standards of recovery are different). The purposes in such provisions are to encourage a person to present a legitimate defense who would otherwise not do so because of the expense involved, and to dissuade the agency from taking unreasonable action.[49]

These provisions, however, stop short of remedying and discouraging unreasonable administrative action that will never proceed to trial -- perhaps precisely because the agency has determined that its initial action was unreasonable. It is acknowledged at EPA that there is potential for error and harrassment in administrative enforcement, although they are thought to be infrequent and very rarely intentional. Given the clear expression of congressional policy to remedy and prevent unreasonable judicial enforcement by the use of an attorneys' fees indemnity provision, a logical inquiry is whether there should be a similar policy to remedy and prevent unreasonable administrative enforcement (especially since experience indicates that unreasonable judicial enforcement will rarely occur).

The following discussion explores the potential for unreasonable administrative enforcement in EPA programs, explores the potential for alternative remedies to indemnification, and considers the feasibility and impacts of such an indemnification program.

2. The Potential for Unreasonable Administrative Enforcement

The potential for "unreasonable" enforcement is inherent in any administrative program that relies on enforcement to ensure implementation of standards. Almost all of the major statutory programs under EPA jurisdiction contain substantial enforcement authority, and Congress has traditionally authorized significant staff levels and funds for enforcement purposes. In addition, many of the statutes contain enforcement imperatives, and Congress has frequently reviewed EPA's enforcement record with an eye toward promoting more action.

The Term "Unreasonable"

What constitutes "unreasonable" enforcement is necessarily a matter of interpretation. Many would probably agree if enforcement amounts to intentional harrassment or if the agency has committed an error in determining the existence of a violation or the applicability of a regulation, or proceeded to enforce without a good faith legal justification, that these actions would be "unreasonable."

Undoubtedly, however, there are other circumstances which persons would argue amount to unreasonable actions, but over which there would be legitimate disagreement. Typical past complaints against EPA enforcement policies include: (1) enforcement of technically or economically infeasible requirements (where the Agency intends to implement statutory mandates); (2) inconsistent enforcement practices, for example, in the assessment of penalties (where the Agency utilizes its inherent discretion to enforce as it sees fit under the circumstances); (3) discriminatory selection of enforcement cases --for example, the Agency may publicize an enforcement target list, as under RCRA and CERCLA, that includes certain violators who may pose a less significant environmental risk than others who are excluded from the list (in such a case the Agency's enforcement interest may be based on other factors, such as location, adequacy of evidence, visibility for purposes of deterrence, etc.); and (4) the use of harsh bargaining techniques (for example, the Agency may threaten to pursue all available or particularly burdensome sanctions as leverage to obtain acceptance of certain unfavorable terms in a consent decree).

For purposes of the current evaluation, the latter circumstances are excluded from further consideration, and a narrow view of "unreasonable" enforcement has been chosen. Such a view is consistent with congressional consideration of the issue under § 113(b) of the Clean Air Act and the Equal Access to Justice Act.[50] Moreover, the latter circumstances are almost always within the broad province of enforcement discretion typically provided by Congress and accorded by the courts.[51]

The Term "Enforcement"

Typically, an enforcement program embraces all aspects of regulation design and implementation, from assistance in regulation drafting (or review) to ensure enforceability, to the initiation and completion of appropriate administrative and judicial proceedings. The list of enforcement responsibilities in any one of EPA's enforcement programs is quite long, including such activities as preparing guidelines and manuals; conducting workshops; reviewing state regulations and enforcement actions; reviewing permit applications and compliance reports; conducting inspections and other compliance investigations; responding to private complaints and inquiries; preparing and issuing informal compliance evaluations, formal notices, and abatement orders; conducting formal and informal meetings and hearings for purposes of due process, negotiation; assessing and collecting penalties; preparing and negotiating consent decrees; assisting in litigation; and numerous other activities.[52]

Of principal concern here are administrative enforcement proceedings that impose or could lead to the imposition of specific sanctions. Inspections and other preenforcement investigations are excluded,[53] as well as informal negotiations, and the numerous formal

activities that involve rulemaking, permitting, and similar activities (e.g., delegations of enforcement authority, approval and issuance of delayed compliance orders and nonferrous smelter orders under the Clean Air Act, response to State submissions and the issuance of NPDES permits under the Clean Water Act, etc.). Emergency actions have also been excluded because they are discussed separately in this chapter.

In general, four types of administrative enforcement activities have been given consideration: (1) notices of violation, (2) compliance orders, (3) administrative penalties, and (4) the use of blacklisting. The following table indicates which statutes contain these four administrative enforcement techniques.

Administrative Enforcement Mechanism

Statute	NOV Authority[54]	Compliance Orders	Penalties	Blacklisting
CAA	Yes	Yes	Yes	Yes
CWA	Yes	Yes	Yes	Yes
RCRA	Yes	Yes	---	---
SDWA	Yes	Yes	---	---
FIFRA	Yes	Yes	Yes	---
TSCA	Yes	---	Yes	---
CERCLA	Yes	Yes	---	---

a. Existing Constraints to Unreasonable Administrative Enforcement

There are numerous factors that protect persons from unreasonable administrative enforcement action by EPA. These include statutory enforcement restrictions; Agency concurrence and review procedures; Agency policies favoring state enforcement leadership, informal disputes resolution, and concentration on only the most "significant" violators; as well as overall resource constraints. It should be noted that these factors, either alone or in combination, offer no assurance that unreasonable enforcement will not occur; and they vary in significance from program to program. Nonetheless, they offer a general perspective on the potential for unreasonable enforcement at EPA and help to explain why there are few complaints relating to EPA enforcement that are being raised by industry.

(1) Statutes

EPA's statutes include two types of constraints on enforcement that would limit the occurrence of unreasonable action: (1) provisions that limit EPA's enforcement authority; and (2) procedural requirements that enable persons subject to enforcement to influence the Agency's action.

There are numerous statutory constraints on administrative enforcement authority. Under § 113(a) of the Clean Air Act, for example, EPA has interpreted the statute to require that administrative orders provide for compliance within thirty days. If this is not feasible, the Agency must pursue judicial action under § 113(b). Thus, the flexibility to take formal administrative enforcement action under the Clean Air Act is often restricted. Another type of restriction exists under §§ 1414 and 1423 of the Safe Drinking Water Act: EPA findings of noncompliance must be turned over to any state which has been given primary enforcement responsibility by EPA; then, unless EPA finds that the State has abused its enforcement discretion, EPA's role is limited to advice and assistance.[55] These, and similar constraints which exist under other statutes limit the potential for unreasonable action by limiting the occurrence of administrative enforcement altogether.

On the other hand, procedural prerequesites to enforcement often permit or induce an independent check on the validity of an action and allow for errors to be identified and resolved prior to the occurrence of any significant adverse impact. For example, many of the statutes impose notice of violation and conference or hearing requirements prior to the issuance of an order or assessment of a penalty;[56] and special statutory hearings and appeals procedures exist for certain enforcement actions.[57] Where statutes do not provide for these procedures, agency policies often do.[58]

(2) Policies

Other areas which might raise the potential for unreasonable enforcement have been deemphasized or eliminated by current agency policies. For example, under the pesticides law EPA has adopted a policy emphasizing compliance assistance to industry as well as state agencies and deemphasizing independent enforcement.[59] Shifts of emphasis may also be noted under other programs, particularly under the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act.[60]

This is considered appropriate not only as a matter of fiscal constraint and efficient resource allocation, but also as an important element of the current administration's policy of "cooperative" or "new" federalism. As an example of how this policy would be implemented in one program, a recent air pollution enforcement policy memorandum instructs the Regional Offices to encourage states to take the lead in enforcement against "significant violators," to offer assistance, and to assume the lead only where a State cannot or will not take the lead, despite whatever assistance EPA can provide.[61]

It is also apparent that the agency intends to concentrate its enforcement against predetermined "significant" violators. Each program office has developed criteria for identifying such

violators, and in some cases, lists have already been or are being prepared. In general, this policy is an element of the Administrator's new accountability system, intended to remove enforcement quotas as a measure of performance and to instate criteria based on environmental results.[62] Guidance under the stationary source air program, for example, provides that "significant violators" are existing facilities located in or affecting non attainment areas with controlled emissions exceeding a 250 tons per year potential, unless the magnitude and duration of the violation is minimal and non-recurring; new and hazardous facilities are normally considered significant (again, unless the violation is minimal and non recurring).[63] Identification of facilities meeting these criteria and development of specific enforcement strategies are to involve state participation.[64]

A coordinated approach toward identification of enforcement targets in advance limits the potential for error associated with hasty or negligent action. In addition, Administrator Gorsuch has stated that a "non-confrontational" approach to enforcement is preferred -- one that presumes good faith by the regulated industry and emphasizes voluntary compliance.[65] Such an approach may be indicated by the reduction in cases forwarded to the Department of Justice for litigation since Gorsuch took office,[66] as well as in recent EPA efforts to involve industry in self-regulation programs.[67]

(3) Concurrence Procedures

To ensure that these national policies are observed, as well as to ensure legal adequacy, internal enforcement concurrence procedures are stressed. These procedures are especially rigorous when litigation is involved.[68] However, to preserve the option of litigation, the litigation concurrence procedures also serve as an incentive toward careful case consideration at the outset.[69] For administrative action they currently require that the Regional Counsel approve the action as legally adequate and consistent with national policy.[70] Normally, the action must also be signed by an official high enough within the managing hierarchy (e.g., Division Director) so that several levels of review will have occurred before the action is forwarded to counsel for concurrence.

(4) Overall Resource Constraints

It is possible that the potential for unreasonable administrative enforcement may also be influenced by enforcement resource limitations. Fewer resources, for example, may result in more careful case selection. Traditionally, EPA enforcement resources have permitted only a limited number of enforcement cases, and these have been chosen on a selective basis. Recently, moreover, as a part of the overall administration initiative to conserve federal resources and achieve a balanced budget, EPA's enforcement resources have been curtailed even further.

During F.Y. 1982, EPA's overall operating budget for enforcement was reduced by 12% (reflecting efficiencies attained by management and reorganization according to testimony by Gorsuch before the Senate Public Works Committee in 1981).[71] EPA's budget request for 1983, moreover, indicates that in certain program areas, more reductions may occur.[72] However, the Administration has indicated that these proposed reductions for the most part will not result in an actual decrease in enforcement activity from 1982 levels. Further, a portion of the individual program decreases have merely been shifted to a new Office of Enforcement Counsel, (within the recently established Office of Legal and Enforcement Counsel) as a part of an overall reorganization of enforcement operations. Thus, whether currently planned reductions in enforcement resources will result in more selective enforcement would be a matter of speculation.

b. Absence of Complaints

During the course of this study, substantial research was conducted to determine the existence of actual complaints involving unreasonable EPA enforcement. Enforcement officials currently with the Agency (or who recently departed) were interviewed. Major industry associations were consulted, and relevant reports and congressional documents were reviewed.[73] Although this research was neither comprehensive nor designed scientifically to ensure statistical validity, very few instances were identified in which complaints pertained to unreasonable enforcement, as defined in the current analysis. In fact, only in recent Senate Oversight Hearings involving the Clean Air Act were complaints alleging specific losses due to EPA enforcement actions raised.[74] Even in these situations, however, objections related to EPA's use of its legal discretion, not to errors, negligence or action amounting to an abuse of process.

It is not possible to conclude from this research that no EPA enforcement action to date warrants indemnification. To the extent that such actions may exist, however, they have not been openly publicized. Several respondents during the course of this study suggested that the absence of industry complaints may reflect concern over bad publicity and fear of compounding existing agency relationship problems by raising the issue.

On the other hand, testimony does appear throughout the past several years criticizing EPA's failure to conduct adequate enforcement. This is particularly noticeable in the 1981 enforcement oversight hearings, as well as in recent oversight hearings on the implementation of the Clean Water Act, the Resource Conservation and Recovery Act, and Superfund;[75] and in legislative hearings on the budget and the Clean Air Act reauthorization.[76]

3. Blacklisting

An area of concern frequently raised in interviews involved the agency's blacklisting authority. Under the Clean Air and Clean Water Acts,[77] no federal agency may engage in a contract with a person who is convicted of a criminal violation (unless the President provides a special exemption) until EPA certifies that the condition giving rise to the conviction no longer exists. Expanding upon this authority, Executive Order 11738, § 4,[78] requires that all federal procurements include provisions requiring compliance with the Clean Air and Water Acts. Accordingly, EPA has established blacklisting criteria under 40 C.F.R. § 15.20(a)(1) that include not only criminal convictions, but other instances of non-compliance.

Blacklisting, of course, is intended to interfere with a company's ability to obtain new procurements and thus may have a calculable economic impact that would vary depending, among numerous factors, on the amount of federal procurements anticipated by a given company, the timing of these procurements, the investment already incurred, and the time period necessary to obtain delisting. The stigma attached may also be more serious than that associated with other administrative enforcement actions, since, in contrast to most administrative and judicial enforcement cases, the list is published in the Federal Register,[79] and the Administrator's listing determination would therefore be more widely publicized.

In general, however, this procedure has not often been utilized. In part this is because by the time a criminal conviction occurs, the underlying violation has been corrected; and most civil actions are resolved by settlement or consent decree. In addition, the agency rarely considers listing except in the context of exascerbated cases or repeated offenses, and the opportunity for error is substantially limited in those cases. Moreover, listing does not occur automatically because a facility is in violation. Rather, it must be the result of a specific recommendation (by certain EPA officials, governors or the public), followed by an independent EPA case examination, which includes an opportunity for the owner of the facility to present evidence, and it is ultimately effected by a "listing review panel."[80]

4. Alternative Remedies and Prevention Mechanisms

If unreasonable enforcement actually occurs, and relief within the agency is not available, a lawsuit to prevent further such action would be the most logical alternative. However, if losses have been incurred because of the initial agency action, they probably cannot be recovered. Further, unless the party qualifies as a small business under the Equal Access to Justice Act, it may not be able to recover court costs for his successful lawsuit. Compensation for other losses, such as lost business, is not available in any case. In addi-

tion, if the agency is not obligated to pay compensation, then one of the primary purposes in current legislation may not be fulfilled -- to deter unreasonable action by forcing the agency to pay -- although the lawsuit, itself, may be an adequate deterrent in this regard.

Nonetheless, it is possible that injury may be avoided altogether through judicial review. However, courts have often been unwilling to allow suits at an early stage of the enforcement process, on the theory that review should be limited to final agency action, as defined under the Administrative Procedure Act or the specific statutes involved.[81] However, not all courts agree that review must await some later stage of enforcement, if a demonstration of immediate, harmful impact can be made; and the trend appears to be more toward flexibility on this issue.[82] Judicial review will usually be permitted if it can be demonstrated that administrative remedies are inadequate, futile, will result in irreparable injury, or would be void.[83]

5. Feasibility and Impacts

If there is a right to such compensation for unreasonable administrative enforcement, or even if the indemnity is subject to court discretion, an indemnification program could invite lawsuits at any stage of administrative procedures prior to their completion, and thus supplant administrative enforcement discretion entirely -- or, at a minimum, require a judicial proceeding on the issue of indemnification prior to completion of the agency proceeding. This illogical result, along with the high potential for chilling administrative enforcement activity would argue for making an award only at the completion of the agency proceeding. A more appropriate course would be to ensure the availability of enforcement review whenever agency action, regardless of the stage, poses a significant threat of immediate injury, and a facial demonstration is made that the agency action is erroneous or amounts to an abuse of process.

A second important consideration relates to the amount of compensation. Fees associated with enforcement defense are readily calculable if they involve retaining outside experts or if the defendant has hired such experts for the purpose of defending the case. However, if inside staff are used, it may be difficult to show that an unanticipated expense has occurred as the result of unreasonable enforcement. Lost profits and other opportunity costs may prove to be too speculative. Again, the most logical approach would be to ensure that a cause of action exists in clearly warranted cases so that judicial review may be obtained prior to incurring business losses.

Finally, one should balance the need for compensation and the interest in deterring unreasonable enforcement against the strong congressional policy toward enforcement under most EPA statutes. Especially in the absence of any evidence that unreasonable enforcement occurs on more than isolated occasions, and in the presence of

evidence that all enforcement will be subject to close scrutiny, it may not be reasonable to establish unnecessary legislative constraints to EPA enforcement.

6. Conclusion

An expanded indemnity program to compensate persons subject to unreasonable administrative enforcement is probably not warranted. This is primarily because there is no evidence that unreasonable enforcement exists on more than a very infrequent basis, and because EPA's current enforcement policies make such occurrences unlikely. However, it cannot be stated with certainty that unreasonable administrative enforcement will not occur.

The most effective approach toward resolving potential problems of unreasonable enforcement would be to ensure the availability of judicial review (to the extent it is not already available) in cases where the Agency has clearly engaged in abusive or erroneous activity. This would preserve existing compliance incentives on the part of the affected industry (and incentives to take precautions against agency errors), and it would preserve existing enforcement incentives on the part of the Agency at a time when there is little evidence of agency abuse and substantial evidence of agency restraint. Any new indemnification program should be established only when a pattern of error and abuse is clearly discernible, and it is apparent that alternative loss avoidance mechanisms are inadequate.

G. CHANGES IN AGENCY POLICY

1. Description of the Problem

Stability and predictability of government action is important to regulated parties. Abrupt or unexpected changes in government policy can disrupt planning and cause losses beyond those attributable to the new policy itself. Furthermore, since an industry is rarely homogeneous, a change in policy can affect the relative competitive positions in ways that may not be intended or even foreseen by the Agency. While the usual effect of a change of policy often times is much the same as the effect of an original policy (i.e., the cost of complying with a justified governmental regulation), the issue is a topic of considerable concern to industry and some academics, and has been raised in so many of our discussions that it must be addressed. Nevertheless, we did not find, and none of our contacts brought to our attention, any actual case of a change in policy causing a loss that might justify indemnification.

There are two theoretical fact patterns that bear discussion. The first is a situation in which a company must comply with a new or changed regulation at the same time that it is challenging the regulation in administrative or judicial review. Although a prevailing party may be able to collect court costs and attorney's fees, no statute would entitle it to reimbursement for the costs of interim compliance with a regulation which is later overturned. The second situation need not involve an erroneous or arbitrary change in policy. It might happen that even a fully justified change could impose an unreasonable cost on a segment of the industry. For example, suppose that the Agency changed from a relatively more stringent standard to a relatively less stringent standard for emissions. Those who had acquired equipment or otherwise invested to comply with the first standard might well find that the investment was lost. Thus, those who had been most diligent in complying would have the greatest loss. This might also happen as standards become more stringent, if equipment used to meet the old standard would not work for the new one.

2. Evaluation

Although immunity of the government and its officers has been steadily strinking over the last forty years, there are still some core activities protected from tort liability. Broad decisions to adopt particular standards or regulations or other decisions calling for balance of policy considerations are discretionary judgments within the exemption from the Federal Tort Claims Act.[84] The reasons for protecting such policy decisions go to the very structure of our government: maintaining the independence of the three branches. It is not the proper role of the judiciary to remake the decisions of the executive. Political questions are not considered amenable to testing through tort law because "objective standards are notably lacking when

the question is not negligence but social wisdom, not due care but political practicability, not reasonableness but economic expediency."[85] Changes in policy are by definition part of this category of protected government activity. Thus, any recommendation for indemnification in this area either has to overcome a heavy presumption against it, or find a way around the separation of powers problem.

The factors for analysis that were identified in Section III are useful in evaluating the potential indemnifiability of losses caused by changes in policy.

Alternatives to indemnification can be used to reduce or spread any cost of changes in regulation. Advance notice and phased-in compliance can allow those involved to make an orderly transition. Participation of a representative sample of all firms in an industry during rulemaking could help avoid unwitting impacts on competitive relationships that might result if the Agency did not understand all the variations in the industry. Exceptions and waivers can permit flexibility in application of the new regulation to individual situations. Most of the statutes administered by EPA have some relief by means of variance or exception for small businesses or those to whom the regulation was unfairly applied. Of course, some costs will remain no matter how long the transition period, or flexible the implementation. Whether these are beyond the cost of compliance can only be determined from an examination of the particular facts of a specific situation.

Another powerful alternative to indemnification for changes in policy is review of the decision by administrative or judicial tribunals. The remedy sought is not money damages but modification or retraction of the offending policy action. This may explain, in part, why we found so few actual losses connected to changing policies. If a projected loss really is severe or unreasonably allocated, it can often be prevented by obtaining a stay of the action while the review is ongoing.

An abrupt change might constitute a procedural inequity, if made in the absence of compelling public health reasons, but the government rarely acts abruptly. Even the emergency decision to cancel some uses of pesticides containing 2,4,5-T and Silvex came at the end of eight years of regulatory action and study, including an earlier cancellation of home and aquatic uses of 2,4,5-T (later withdrawn). Though the manufacturers of the pesticides were surely aware of the continuing Agency concern and new developments in the scientific understanding, and thus the potential for regulation, it is possible that the sellers and users of the pesticides were not prepared. This points up a possible substantive inequity: that cost of the government action might fall most heavily on those least responsible, and least able to bear it. This would depend upon an analysis of the case. Since a ban is the most drastic action the Agency can take, the more common and less onerous actions would have less severe impacts.

Changes in policy are often based on explicit Congressional direction. Either the law itself is amended, or the law specifies that the Agency must revise standards in light of new knowledge. In the face of such clear directions, it would be difficult to justify indemnification if Congress has not already authorized it. Occasionally the question of compensation is addressed directly. After the de-regulation of the trucking industry, the tax code was amended to allow deductions for the book value of trucking certificates rendered useless by the de-regulation. This only partially compensated those who had held the certificates for a long time and those whose taxes were low. This treatment indicated that Congress regarded the loss as a cost of doing business rather than an extraordinary loss.

The ability of the Agency to balance policy considerations objectively could be hampered significantly by the possibility of having to pay for the costs. This is one of the reasons for exempting policy decisions from the Federal Tort Claims Act. If, however, Congress should decide that the cost of some change in policy ought to be born by the taxpayers rather than by some segment of the regulated industry, this is a different matter. It would be a political decision by those most accountable, and would be separate from the policy decision of how best to implement a statute.

3. Conclusion

Change in policy is a category almost as broad as all Agency action, and it is difficult to make generalizations about it. However, it is clear that for most changes there is no extraordinary loss suffered. The alternatives to indemnification work well here, either to avoid the loss through participation in the creation of the decision to change by exemption, or by judicial review and modification of the policy.

FOOTNOTES TO SECTION IV

[1]Among surveys and reports reviewed were the following: ERT, "The Effects of the Clean Air Act on Industrial Planning and Development" (for the Business Roundtable); Vice President Bush's Regulatory Relief Task Force survey and responses; The Small Business Hotline.

[2]This was not a thorough or scientifically designed survey of all industries that deal with EPA. Instead, it was a series of informal conversations in which we attempted to ascertain thoughts about indemnification and to learn about losses that the agency might have caused. The first conversations were quite general. As we reached people who were knowledgable about a particular event, or interested in a particular area they became more specific. Often, persons with whom we spoke were not willing to commit their firms or organizations to particular positions; and many requested that they not be quoted by name. At this writing several persons have indicated interest in a further opportunity to provide input after reviewing a written report.

[3]Three Freedom of Information Act (FOIA) bills are before the Congress. The Reagan Administration bill is H.R. 4805 and S. 1751. Senator Orrin Hatch (R.-Utah) has introduced S. 1730, which is similar to the Administration bill. S. 1730 has been approved by the Senate Subcommittee on the Constitution and, as of May 19, 1982, was still in markup before the Senate Judiciary Committee. According to a telephone conversation on March 22, 1982, with Mr. Randy Radar, subcommittee staff person, the focus of S. 1730 is on defining what is and what is not confidential business information under the FOIA. Because it is felt that the current law does not clearly define confidential business information, the subcommittee has attempted to develop more reliable standards for this determination. The definition of CBI would affect what can and cannot be disclosed under the FOIA.

[4]H.R. 5203, The Federal Insecticide, Fungicide, and Rodenticide Act Amendments of 1982, was reported out of the House Agriculture Committee on May 17, 1982.

[5]Id. under Section 5(7) a new subsection (h) entitled "Civil Action" would be added to § 10 of FIFRA. Additionally, section 7 of H.R. 5203 would amend § 14(b)(3) to provide criminal penalties to private parties and federal employees and contractors for unauthorized knowing or willful disclosure.

[6]E.g., Chevron Chemical Co. v. Costle, 641 F.2d 104 (3d Cir. 1981), cert. denied, 101 S. Ct. 3110 (1981) (concerning §§ 3(c)(1)(D) and 10 of FIFRA); Mobay v. Costle, 517 F. Supp. 252 (W.D. Pa. 1981), which expressly followed the holding of the Chevron case; Union Carbide Agricultural Products Co. v. Gorsuch, (S.D.N.Y., No. 76 Civ. 2913) (preliminary injunction against EPA issued by the district court vacated on appeal by the Second Circuit); and Petrolite Corp. v. EPA,

519 F. Supp. 966 (D.D.C. 1981) (EPA's motion for summary judgment granted).

Due to the erroneous FOIA release of an EPA review of data on Monsanto's herbicide glyphosate in May 1982, the Agency in August 1982 agreed to special procedures designed to protect Monsanto's interests. Specifically, any future requests for registration of herbicides containing active ingredients will be submitted to EPA's Scientific Advisory Panel for a judgment whether the application is based upon Monsanto data improperly disclosed by the Agency. The new procedures to which EPA agreed were set forth in a court judgment issued by the U.S. District Court for the Eastern District of Missouri, Monsanto v. Gorsuch, No. 79-0366-C(1). See "Current Developments" at 758, BNA Environment Reporter (Oct. 1, 1982).

[7]Telephone conversation on March 22, 1982 with James Nelson, EPA Office of General Counsel.

[8]See TSCA Legislative history on CBI issue.

[9]E.g., U.S. Environmental Protection Agency, TSCA Confidential Business Information Security Manual (Office of Toxic Substances, October 1981).

[10]TSCA § 14(d) contains a misdemeanor provision which applies to any current or former United States employee, officer or contractor. FIFRA § 10(f) contains a similar provision. RCRA § 3007(b)(2) and CERCLA § 104(e)(2)(B) contain criminal sanctions applying to any person (such as a state official) not subject to 18 U.S.C. § 1905.

[11]Telephone conversation on March 8, 1982 with Mr. James T. O'Reilly, lecturer in law at the University of Cincinnati and senior counsel for Proctor and Gamble Co. O'Reilly was particularly concerned about the progressive nature of employee discipline sanctions and the fact that the removal sanction is not usually applied until the third offense. It should be noted, however, that "in unusual circumstances greater or lesser penalties may be applied unless otherwise provided by law." TSCA Security Manual, supra note 9 at 31 (Appendix I).

[12]Id. O'Reilly argued that non-use of 18 U.S.C. § 1905 is indicative of its lack of deterrent effect. Also, he noted that § 9-2.025 of the U.S. Attorney's Manual dated May 1979 requires that any prosecutions under § 1905 must be cleared by Department of Justice officials in Washington, D.C. O'Reilly contended that this restricts the use of § 1905. An attorney at the Department of Justice, however, emphasized that there is no policy not to use § 1905 and that the U.S. Attorney's Manual provision is informationally oriented and probably designed to permit national coordination on the use of § 1905. Telephone conversation on March 10, 1982 with Mr. Frederick Hess, Acting

Director of Legal Support Services (dealing with FOIA Matters), U.S. Department of Justice. Another Justice Department attorney felt that it would be speculative to conclude that use of § 1905 would be restricted because of the U.S. Attorney's Manual requirement. Telephone conversation on March 10, 1982 with Mr. Alan Carver, Public Integrity Section (handling 18 U.S.C. § 1905), U.S. Department of Justice.

[13]Telephone conversations on February 25, 1982 with Mr. Charles Breece, EPA Office of General Counsel; on March 2 and 22, 1982 with Mr. James Nelson, EPA Office of General Counsel; on March 22, 1982 with Mr. John Euller, Assistant Director, Civil Division, U.S. Department of Justice; and on March 22, 1982 with Mr. James Klapps, Torts Section, Civil Division, U.S. Department of Justice.

[14]Id. Nelson, Hess, and Carver; and telephone conversations on March 11, 1982 with Mr. Larry Swales, Security Officer, EPA Office of Toxic Substances; and on March 23, 1982 with Mr. James Conn, Divisional Office for the Mid-Atlantic Region, EPA Inspector General's Office. The only known intentional unauthorized disclosure of CBI may have occurred in the area of EPA contractors voluntarily submitting information needed for the competitive bidding process. Apparently, EPA employees may have disclosed information to a contractor's competitor. In response to "blistering" letters received from irate contractors, EPA has undertaken careful investigations to determine whether criminal prosecution might be warranted. So far, the evidence has been insufficient to warrant criminal prosecution, although certain cases have in the past been referred to the Department of Justice for consideration. Conn, id.

[15]O'Reilly, supra note 11. Mr. O'Reilly claims that instances of disclosure and loss have occurred and that such incidents have been described to him "off the record" by affected parties.

[16]Id.

[17]Id.

[18]For example, H.R. 5203, supra note 4, permits limited disclosure of health and safety test data to environmental groups, but then provides for substantial civil liability if that information is then passed on improperly to a competitor of the party whose CBI is disclosed.

[19]An example of statutory authorization where this problem might arise is found under TSCA § 14(a)(3) which permits disclosure "if the Administrator determines it necessary to protect health or the environment against an unreasonable risk of injury to health or the enviornment." This provision, however, has not yet been used.

[20]Jayson, Handling Federal Tort Claims § 260.06 (Matthew Bender, 1964 and current supplements) states at 13-96:

> The breadth of Section 2680(h)'s exclusion of "any claim arising out of * * * interference with contract rights" is unclear largely because the common-law concept of the tort of interference with contract rights is not a clear-cut one. Interference with contract rights may be but one aspect of tortious conduct in the field of economic relations. The broader concept includes a variety of torts and improper conduct comprising the body of law loosely described as interference with business relations. The Restatement of Torts, in discussing this general area, deals with such subjects as engaging in business for the purpose of causing loss of business to another, fraudulent marketing, trademark infringement, disclosure of trade secrets, refusal to deal with another, inducing breach of contract or refusal to deal, and labor disputes, to mention but a few.
>
> Whether any or all of these other, closely related torts are also embraced within the Tort Claims Act phrase "interference with contract rights" is still unsettled. The legislative history of Section 2680(h) provides no answer. Prosser states that there is a definitely marked out tort "under the name of inducing breach of contract, or interference with contract." And the Restatement sets out a general principle of liability under the heading "inducing breach of contract or refusal to deal." It should be noted, however, that the phrase used in the Tort Claims Act is not precisely the same as that used by those two leading works on torts. (emphasis added).

The FTCA's exclusion of claims arising out of "interference with contract rights" is susceptible of covering not only interference with existing contractual relations but also interference with precontractual relations or prospective advantage. There has been a lack of unanimity among the cases on this question. Dupree v. United States, 264 F.2d 140 (3d Cir. 1959), a case involving the alleged negligent withholding of a security clearance by the Coast Guard, held that the exception covers interference with prospective advantage, as well as existing contractual relations. But the Ninth Circuit in Builders

Corp. of America v. United States, 148 F. Supp. 482 (N.D. Cal. 1957) rev'd, 259 F.2d 766, 769 (9th Cir. 1958), indicated doubt about this conclusion. See also Black v. United States, 389 F. Supp. 529 (D.D.C. 1975), appeal sub. nom, Black v. Sheraton Corp. of America, 564 F.2d 531, 540-41 (D.C. Cir. 1977), in which the Court of Appeals expressly rejected the government's contention that the interference with contract exception was applicable in a case involving invasion of privacy and the dissemination of information to the effect that the claimant was connected with organized crime. Another relevant case is Quinones v. United States, 492 F.2d 1269 (3d Cir. 1974), in which a former government employee was allowed to bring an action under the FTCA based on the alleged failure of the government to use due care in maintaining his personnel records, resulting in damage to his reputation. In both Black and Quinones the courts refused to stretch exception (h) beyond its specific coverage and allowed the claimants to maintain their causes of action.

[21]O'Reilly, supra note 11, noted in particular that tort law in the District of Columbia is not highly developed. He also thought that proof of the quantum of damages would be particularly difficult.

[22]Supra note 19.

[23]A primary reason for expressly subjecting the government to suit for either negligent or intentional unauthorized disclosures would be to affect agency behavior by prompting it to be more careful in its handling of CBI. With regard to criminal sanctions, the burden of proof is much higher and so the impact on the agency and its employees may be less with criminal sanctions than with civil tort liability. The product liability area is frequently cited as one in which tort liability may significantly affect behavior and prompt more careful actions. Telephone conversation on May 19, 1982 with Dr. Nickolas Ashford, Center for Policy Alternatives, Massachusetts Institute of Technology.

[24]For example, one such general problem may be the lack of a requirement in FOIA that notice be given to an information submitter prior to its release by an Agency. O'Reilly, supra note 11, discussed this problem with regard to the FDA in his testimony on July 16, 1981 at Freedom of Information Act oversight hearings before a subcommittee of the House Government Operations Committee. See hearings at 596, 599, 609-10.

[25]Supra note 6.

[26]Environmental Defense Fund, Inc. v. Gorsuch, 17 E.R.C. 1099 (D.D.C. 1982). EPA was ordered to notice the proposed National Contingency Plan revisions within 30 days from the date of the court's order on February 12, 1982. EPA met this requirement on March 12, 1982 (47 Fed. Reg. 10472). The public comment period closed April 28,

1982 and EPA now has until July 16th to publish the revised National Contingency Plan. See also NRDC, Inc. v. Train, 510 F.2d 692 (D.C. Cir. 1975) (action to compel publication of effluent limitation guidelines under the Federal Water Pollution Control Act).

[27]See, e.g., the EPA Office of Policy & Resource Management cataloging as of September 1, 1981 of industry responses to Vice President Bush's letter to industry groups soliciting comments to the Cabinet-Level Task Force on Regulatory Relief, especially at A-7, p. 2 (Prevention of Significant Deterioration -- Set I Pollutants: recommendation of mandatory deadlines in dealing with applications and reviews); at B-5, pp. 1-2 (NPDES and Consolidated Permits Programs: claims that "regulations placed great and unjustified burdens on industry with specific concerns about delays in processing applications and issuing permits; recommendation to revise regulations to establish reasonable time limits within which the entire permitting process must operate; recommendation to have government agencies work together to streamline permitting functions); at B-9 (Construction Grants: recommendation tthat states should be delegated full review responsibility because EPA review of every stage of project causes extensive paperwork and delay; and at E, pp. 4-5 (Pesticide Programs Under FIFRA: recommendation to establish procedures for reviewing data more quickly in the pesticide registration process, with specific deadlines for review and conditional granting of registration if EPA does not meet the deadline). See also the Business Roundtable report, infra note 31.

[28]M. Hamilton, "The Permit Explosion: Siting New Energy Facilities in the Western United States," (Dep't of Political Science, Colorado State University, Ft. Collins, Colorado; Presented to the State Energy Permitting Workshop of the Western Governor's Policy Office and the New Mexico Dep't of Energy & Minerals, Albequerque, N.M.; Dec. 16-17, 1980).

See also Urban Systems Research & Engineering, Inc., "Causes of Delay for Major Industrial Projects," (Draft Final Report prepared for the Council on Environmental Quality, Jan. 11, 1981), which reviewed the existing literature and attempted to provide a more comprehensive look at the effects of regulations on project schedules than had been done by previous studies. The Urban Systems analysis involved 41 case studies of non-nuclear energy projects and non-energy projects. In over half of the cases, project delays were attributable to a variety of factors. The remaining cases "were equally divided between cases where regulatory factors alone were responsible for the delays and cases where economic factors alone were responsible. The availability of labor and equipment was not a significant cause of delay. The study concluded that "while the regulatory delays can to some extent be managed (and minimized), they are often out weighed by economic difficulties which are external to the project management."

[29]EPA memorandum entitled "Briefing on Permitting, 9/1/81" from Stuart Sessions, Chief Energy Facilities Branch, Office of Policy Analysis, OPRM to Nolan Clark, Associate Administrator for Policy & Resource Management. More current information provided by Mr. Sessions as of April 30, 1982 indicated from a sample of 28% of the recently issued PSD permits that the average time from the application submittal to permit issuance was 10.5 months and from the time of submission of the last information to permit issuance was 4.9 months. It was noted that the submission of the last information is often later than when the application is declared by EPA to be complete. Thus, "the most complex permit processing takes less than a year." Infra note 30.

[30]Telephone conversation on March 12, 1982 and interview on April 27, 1982 with Mr. Stuart Sessions, Chief, EPA Energy Facilities Branch, Office of Policy Analysis, OPRM. In 1980, EPA established a specific branch in the Office of Policy Analysis for the purpose of evaluating possible improvements to the permit-processing system. See also text accompanying note 32 infra.

[31]Environmental Research & Technology, Inc., I & II Effects of the Clean Air Act on Industrial Planning & Development: Analysis of Case Studies (The Business Roundtable Air Quality Project) (July 1981). See also EPA memorandum entitled "Review of BRT Report on 'Effects of the Clean Air Act on Industrial Planning & Development," from Stuart Sessions, Chief Energy Facilities Branch, Office of Policy Analysis, OPRM to Kathleen Bennett, Assistant Administrator for Air, Noise & Radiation (Oct. 27, 1981).

[32]Supra note 30.

[33]Supra note 30 and note 29, at 5-6.

[34]EPA has established a work group to conduct an Agency-wide evaluation of whether or not various fees might be appropriately levied. A report is anticipated by mid-summer 1982. Supra note 30.

[35]Although § 165(c) of the Clean Air Act contains a mandatory requirement that PSD permits "shall be granted or denied not later than one year after the date of filing of [a] completed application," no mandamus action has ever been brought to force Agency action on a PSD permit application. Nevertheless, such an action could be brought. Interview on June 2, 1982 with Mr. Peter Wyckoff, EPA Office of General Counsel (Handling PSD Permits).

[36]Appendix B, note 54.

[37]Appendix A, page A-20.

[38]U.S. General Accounting Office, Gaines & Shortcomings in Resolving Regulatory Conflicts & Overlaps, Report to the Congress by

the Comptroller General of the United Stated (PAD-81-76; June 23, 1981).

[39]Id. at 58.

[40]Id. at 60-68.

[41]Id. at 68-79.

[42]Id. at 44.

[43]Description generally based on Rendleman, "Legal Anatomy of an Air Pollution Emergency," 2 Environmental Affairs (Boston College) 90 (1972); and Hardy, Pate, et al., "First Use of the Federal Clean Air Act's Emergency Authority, "A Local Analysis,'" 64 Amer. J. Public Health 72 (1974).

[44]Hardy, Pate, id. at 74.

[45]United States v. U.S. Steel, CA 71-1041 (N.D. Ala., Nov. 19, 1971), Transcript of Hearing before Judge Pointer, quoted in Rendleman, id. at 100.

[46]Telephone conversation with Fournier J. Gale, III, on January 28, 1982.

[47]H.R. Rep. No. 90-728 at 19; S. Rep. No. 91-1196, 91st Cong., 2d Sess. (1970).

[48]When an air alert was declared the following June, all regulations and phased curtailment plans were in place. Inspections showed that sources were complying with the plans, and that the particulate count decreased markedly when the abatement plans went into effect. Hardy, Pate, id. at 76.

[48a]Telephone conversation on May 25, 1982 with Jeff Miller, former EPA Acting Assistant Administrator for Enforcement.

[48b]Telephone conversation on May 26, 1982 with Pamela John in Contracts Management Division of EPA.

[49]See discussion supra at 66-71.

[50]Id.

[51]See discussion of enforcement discretion in City of Seabrook v. Costle, 16 E.R.C. 1676 (5th Cir. 1981).

[52]More detailed description of current and planned enforcement activities may be found in prepared materials supporting the Adminis-

trations budget proposal for F.Y. 1982 and 1983. The F.Y. 1982 materials have been reprinted in an abbreviated form in BNA: Environment Reporter, Federal Laws 51:1601-1645. The F.Y. 1983 materials are available at EPA in an unclassified publication entitled, "Justification of Appropriation Estimates for Committee on Appropriation, Fiscal Year 1983."

[53]The boundaries of protection relating to inspections and other investigations are well established under the Fourth Amendment. See, e.g., Public Service Company of Indiana v. EPA, 15 E.R.C. 1939 (S.D. Ind. 1981); EPA's inspection policy as stated in a memorandum to the Regional Administrators from the Assistant Administrator for Enforcement on "Conduct of Inspections After the Barlow's Decision" (April 11, 1979), reprinted in BNA: Environmental Reporter, Federal Laws 41:2451. Restrictions also exist in the individual pollution control statutes and under the Federal Torts Claims Act. While Agency inspections may sometimes be inconvenient and occasionally cause injury, to the extent that these impacts are unjustifiable, they may normally be avoided by court action. To the extent that the inspection results may be erroneous, EPA must enforce on the basis of the erroneous results before any actual injury would occur --thus, it is the enforcement action, rather than the inspection, that merits primary concern in the current study.

[54]The authority may be express or implied. In general, the agency provides notice of a violation prior to issuing an abatement order or proceeding to litigation even when the statute does not require such notice.

[55]See also §§ 26 and 27 of the Federal Insecticide, Fungicide and Rodenticide Act.

[56]See, e.g., § 113 of the Clean Air Act and § 309 of the Clean Water Act.

[57]See, e.g., § 120 of the Clean Air Act.

[58]Supra note 52; see also blacklisting procedures stated in 40 C.F.R. §§ 1520 et seq., Appendix A.

[59]In the recent administration's budget proposal, EPA indicated that the pesticides enforcement program would shift in emphasis to compliance assistance to both industry and the states. EPA document entitled "Environmental Protection Agency, Justification of Appropriation Estimates for Committee on Appropriation, Fiscal Year 1983" at P-48-49. This is consistent with §§ 26 and 27, which provide the States with primary enforcement responsibilities.

[60]Id. at A-110-111; WQ-114; DW-49; under the toxics and Superfund legislation there is no statutory analog to the State implementation and delegation programs that exist under other statutes.

[61]Memorandum to Regional Administrators from Kathleen Bennett (December 29, 1981). Delegation to the states is the Administrator's top priority management goal for F.Y. 1982. "Adminstrator's Management Goals for F.Y. 1982," reprinted in Senate Oversight Hearing, October 15, 1981, No. 97-H29, 97th Cong., 1st Sess., at 85.

[62]See Testimony of Administrator Gorsuch, Senate Oversight Hearing, October 15, 1981, No. 97-H29, 97th Cong., 1st Sess. at 34.

[63]Bennett memorandum, supra note 61.

[64]Id. See also draft memorandum from EPA Administrator Anne M. Gorsuch on General Operating Procedures for Civil Enforcement Program, reprinted in BNA: Environment Reporter, Current Developments (May 21, 1982) at 78, 82.

[65]See BNA: Environment Reporter, Current Developments (May 14, 1982) at 38.

[66]Senate Oversight Hearing supra note 62 at 33.

[67]A substantial effort is underway to design and implement self-auditing programs within the various regulatory media. Interview with Karen Blumenfeld, Regulation Reform Branch, Office of Policy and Resource Management, EPA. See also proposed self-certification rules for PCB generators, proposed amendment to 40 C.F.R. part 761, § 761.185, 47 Fed. Reg. 24976-88 (June 8, 1982).

[68]See discussion supra, Section III note 117.

[69]Gorsuch Draft Memorandum, § VI, supra note 64.

[70]EPA concurrence procedures have undergone several changes during the past year. See Memoranda from Enforcement Counsel to Regional Administrators (December 29, 1981 and February 26, 1982); Gorsuch Draft Memorandum, supra note 64. As currently stated, these procedures provide headquarters offices with the principal role in defining national enforcement policy, but give the Regional Offices the primary decision-making authority regarding the initiation of administrative action; no headquarters concurrence is normally required for such actions unless a new issue of national policy is raised. This rule is not absolute, however. Variations exist among the different programs, depending on prior guidance (and the need to maintain active headquarters supervision). For example, procedures involving enforcement of RCRA and CERCLA provide for headquarters participation in most aspects of administrative enforcement activity involving inactive sites -- from the listing of priority sites to the issuance of administrative orders. See Gorsuch Draft Memorandum § IV supra note 64, at 82; Memorandum to Regional Administrators from Chistopher J. Capper and William A. Sullivan, Jr. (February 23, 1982) at 8.

[71]Senate Oversight Hearing, supra note 62, at 11-32.

[72]See EPA Budget, supra note 59, at A-113, 114, 117; I-27, 28, 31; SF-24, 25, 29-30, 55. The most substantial reductions would occur in stationary air (A-106-107); water quality (WQ-109-110); hazardous waste (HW-59-60); pesticides (P-44-45) and toxic substances (TS-48-49). Although the drinking water enforcement program would not experience reductions of the same degree, it is already funded at a comparatively low level -- less than 2% of the overall enforcement budget. Only in the areas of mobile air pollution, improper waste disposal and hazardous substance response are increases anticipated.

Current resolutions from both the House and Senate Budget Committees would maintain the F.Y. 1983 enforcement budget authority at approximately the same level as F.Y. 1982. See S. Con. Res. 92; H. Con. Res. 345. However, Congress is only part of the way through the budget process and has yet to reach agreement on an overall F.Y. 1983 budget or to consider what spending ceilings should be imposed. It should be noted, moreover, that the Executive Branch has formal as well as informal options for decreasing actual expenditures, regardless of what is finally approved by Congress. Under the Congressional Budget Act, 31 U.S.C. §§ 1301 et seq., the Administration may rescind a portion of the budget (subject to congressional approval), or defer a portion (subject to congressional disapproval). Informally, the executive office traditionally exercises its discretion in committing funds to suit actual circumstances. As a practical matter, Congress must rely on specific legislative directives and oversight proceedings (as well as informal pressure) to ensure that its objectives are achieved.

[73]Research included the following sources:

1. Complaints received in response to Vice President Bush letter of March 25, 1981, regarding the need for regulatory relief.

2. Review of complaints raised by the Business Roundtable in its reports entitled The Business Roundtable, Air Quality Project, "Effects of the Clean Air Act on Industrial Planning and Development," Vols. 1 and 2 (July 1981).

3. Consultation with industry associations identified in Appendix C to this report.

4. Congressional Oversight Hearings: House Report, "Implementation of the Federal Water Pollution Control Act," No. 96-71, 96th Cong. 2d Sess. (December 1980); Senate Hearing, "Environmental Protection Agency Oversight," No. 97-H29, 97th Cong. 1st Sess. (October 15, 1981); Senate Hearings, "Implementation of the Comprehen-

sive Environmental Response, Compensation, and Liability Act of 1981," No. 97-H-31, 97th Cong. 1st Sess. (July 8 and 20, 1981); Senate Hearings, "Oversight of Hazardous Waste Management and the Resource Conservation and Recovery Act," (unnumbered publication) 96th Cong. 1st Sess. (July 19 and August 1, 1979); House Hearings, "Oversight -- Clean Air Act Amendments of 1977," No. 96-110, 96th Cong. 1st Sess. (July 30, November 27 and 28, 1979); Senate Hearings "Clean Air Act Oversight," No. 97-H12, 97th Cong. 1st Sess. (April 8, 9, May 20, June 2, 3, 4, 5, 9, 11, 22, 23, 24, 25, July 8 and 9, 1981); Senate Hearings, "Toxic Substances Control Act Oversight," No. 95-H69, 95th Cong., 2d Sess. (July 20, 21, 1978); House Hearings, "Authorization and Oversight of the Toxic Substances Control Act," No. 96-28, 96th Cong. 1st Sess. (March 8, 13, 20, 1979); Index to Publications of the United States Congress, 1978-1982, Congressional Information Service, Washington, D.C.

5. Report of the National Commission on Air Quality, "To Breathe Clean Air," March 1981.

[74]George Freeman, attorney for Hunton and Williams of Richmond, Virginia, and counsel to numerous facilities subject to EPA air pollution regulations, discussed three enforcement cases that he described as evidence of unreasonable EPA enforcement policies. All three involved EPA's use of prosecutorial discretion in a manner that resulted in significant burdens on the facilities affected. In a later conversation, Freeman indicated that while he though EPA's stance to be unnecessary, it was not wholly without legal support and he felt the primary problem exists in the 1977 Clean Air Amendments. Senate Oversight Hearings, June 4, 1981, part 2, No. 97-H12, 97th Cong., 1st Sess. at 479-82. Interview with George Freeman, July 9, 1982.

[75]Environmental Protection Agency, Senate Oversight Hearing (October 15, 1981) No. 97-H29, 97th Cong., 1st Sess. 1-11; Senate Hearings on Implementation of CERCLA (July 8 and 20, 1981), No. 97-H31, 97th Cong., 1st Sess.; House Oversight Report on Clean Water Act, No. 96-71, 96th Cong., 2d Sess. (December 1980) 53-54; Senate Oversight on Resource Conservation and Recovery Act (unnumbered) (July 19 and August 1, 1979) 96th Cong., 1st Sess. 317-622.

[76]See also report of the National Commission on Air Quality, "To Breathe Clean Air" (March 1981) at 3.8-14; BNA: Environment Reporter, Current Developments (July 24, 1981) at 414; House Hearings, Health Standards for Air Pollutants, No. 97-97, 97th Cong., 1st Sess. (October 14 and 15, 1981); House Hearings, Clean Air Act Part 1, No. 97-102, 97th Cong. 1st Sess. (October 22, 28 November 5, 10, 1981); House Hearing, Clean Air Act Part 2, No. 97-103, 97th Cong., 1st Sess. (November 19, 20, December 14, 16, 1981).

[77]See CAA § 306; CWA § 508; U.S. v. Sharon Steel Corp., 14 E.R.C. 1957, 1959 (W.D. Pa. 1980).

[78]38 Fed. Reg. 25161 (September 12, 1973).

[79]See 40 C.F.R. § 15.20(a)(3).

[80]See 40 C.F.R. § 15.20 et seq.; Appendix A; discussed in U.S. v. Sharon Steel Corp., supra note 77, at 1958-59.

[81]See, e.g., Union Electric Co. v. EPA, 593 F.2d 299 (8th Cir. 1979); Fry Roofing Co. v. U.S. EPA, 554 F.2d 885 (8th Cir. 1977); West Penn. Power v. Train, 522 F.2d 302 (3d Cir. 1975).

[82]See, e.g., Conoco Inc. v. Gardebring, 503 F. Supp. 49 (N.D. Ill. 1980), and cases cited in text. See also American Petroleum Institute v. Costle, 17 E.R.C. 1334 (E.D. La. 1982).

[83]See, e.g., Humana of South Carolina, Inc. v. Califano, 590 F.2d 1070, 1081 (D.C. Cir. 1978); Porter County Chapter of the Izaak Walton League of America, Inc. v. Costle, 571 F.2d 359, 363 (7th Cir. 1981); Rhodes v. United States, 574 F.2d 1179, 1181 (5th Cir. 1978); Winterberger v. Teamsters, Local Union 162, 558 F.2d 923, 925 (9th Cir. 1977). The question of when judicial review of administrative action may be sought also raises issues relating to the exhaustion of administrative remedies and ripeness for review. See, e.g., Hooker Chemical Company v. EPA, 15 E.R.C. 1721, 1724 (3rd Cir. 1981); Conoco, Inc. v. Gardebring, supra; U.S. V. Sharon Steel Corp., supra; U.S.I. Properties v. EPA, 16 E.R.C. 1408 (D. Puerto Rico 1981).

[84]See Blessing v. United States, 447 F. Supp. 1160 (1978), esp. fns. 14, 18 and 26.

[85]Id. at 1170.

V. CONCLUSIONS

CONCLUSIONS

A. Introduction

This section focuses on the principal question posed by Congress -- under what circumstances, if any, should indemnification be accorded any person as a result of action taken by the Administrator? Conclusions pertinent to this question are stated, along with a summary of the findings and reasoning supporting them. Documentation appears in prior text. We have not made conclusions with respect to cost or financing mechanisms because no new programs were proposed for which cost or financing recommendations were needed. However, cost and financing have been considered both in general, and in the evaluation of existing and potential programs. Findings and observations on these points are included in the body of the report.

The conclusions fall into two categories. The first is a series of findings supporting the overall determination that no new indemnification programs are needed at this time. The second category of conclusions are general ones that are more tentative and are perhaps more correctly characterized as observations based on the overall research and analysis involving the issue of government indemnification. They are included to provide assistance in the future consideration of indemnification legislation.

B. Statement of Conclusions

1. No New Indemnification Programs are Recommended at This Time

This conclusion is based on findings that (a) no justification currently exists for expanding existing EPA indemnification programs into new areas of EPA jurisdication, (b) an analysis of likely loss areas revealed no justification for recommending a new indemnification program, and (c) there is minimal current interest on the part of the regulated industry in such a remedy.

When evaluating the need for a new indemnification program, emphasis was given to the identification of current or past circumstances that would be arguable candidates for indemnification under any of the criteria identified in prior analysis, as well as to an assessment of the probability that such circumstances may arise in the future. In general, few candidates were identified. While future incidents could not be ruled out, the probability of such incidents combined with past experience suggests that these incidents will be infrequent, if they occur at all, and that they probably will not be similar if they occur. In such a case little would be gained by establishing a new program rather than by addressing each incident individually.

a. There is no justification for expanding existing programs into new areas of EPA jurisdiction.

Section 15 of FIFRA

Evaluation of the need to extend § 15 indemnification to other EPA programs indicated that TSCA would be the primary candidate for possible extension. TSCA is the only other statute administered by EPA that significantly regulates particular products, rather than processes for wastes. Application of § 15 to TSCA would be unnecessary because TSCA incorporates many safeguards for inventory losses. The Administrator is given a large variety of regulatory options to reduce risk under TSCA, but must choose the least burdensome one for each situation. Unlike FIFRA, bans under TSCA may not be made by administrative order. Instead, they must either be by rulemaking or court order, thus allowing substantial opportunities for hearing. The two TSCA bans implemented so far have been phased in and did not cover all the uses of the chemicals, thus avoiding the problem of unusable or unsaleable inventory. Limited experience under TSCA prevents a final conclusion, but at this time no FIFRA-like indemnification program seems warranted.

Section 202(a)(3)

Based upon the current situation, § 202(a)(3) indemnification also should not be extended to other EPA areas. Both of the primary candidate areas --the Clean Air Act and RCRA — are fundamentally different from the Clean Water Act in that they do not involve initial government funding of the cost of compliance. The potential for failure of innovative air pollution or solid waste technology does not appear to be a major disincentive to the use of innovative technology. Furthermore, it is questionable whether an incentive-type indemnification provision can function effectively without either the type of funding provided by § 202(a)(2) grants or a commitment to demonstration project funding. Because construction grants funding is available only for municipal wastewater treatment facilities, and because private-sector water and air-pollution control demonstration projects have been significantly reduced by budget cutbacks, such an extended indemnification program does not seem warranted. Nevertheless, if in the future significant encouragement of the development of innovative technology is deemed to be appropriate, then indemnification comparable to that under § 202(a)(3) might be considered.

Section 113(b)

Section 113(b) of the Clean Air Act allows for an indemnity in the form of attorneys' fees and other court costs when a court determines that EPA has taken unreasonable enforcement action. This is intended both to encourage persons (who would otherwise not do so) to

make a legitimate defense, as well as to deter unwarranted EPA litigation.

This provision does not exist in other EPA statutes and is probably not needed. First, there is no indication from current experience under the Clean Air Act that such a provision offers a meaningful deterrent to unreasonable Agency action, or that it is needed to provide an incentive to defend against such action. Second, with rare exceptions there is no evidence that judicial enforcement undertaken by EPA is "unreasonable" (although such a term may be interpreted in various ways). Finally, under current EPA enforcement policies and concurrence procedures, there is little probability that unreasonable judicial enforcement will occur. It should be noted that the Equal Access to Justice Act already ensures for small businesses much of the relief that might be provided if § 113(b) were extended to other EPA programs.

Section 311(i)

Section 311(i) of the Clean Water Act allows a nonliable oil spill discharger to recover voluntarily-incurred cleanup costs. The purpose is to encourage fast, effective action by the person who is first likely to know of the spill and who may be able to prevent a more costly and damaging problem by taking immediate containment and cleanup steps. Section 311(i) has worked, but such a provision is probably not suitable for spills and similar releases under other EPA statutes at the present time. A somewhat different approach has been adopted by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) that applies to all releases (other than oil spills). Although experience with CERCLA is limited, a need for further change is not now indicated.

b. An analysis of likely areas revealed no justification for recommending a new indemnification program.

The categories of losses specifically evaluated for potential indemnification were losses due to:

- Agency release of confidential business information;
- delays;
- conflicting requirements;
- emergency actions;
- unreasonable enforcement actions;
- change in Agency policy.

An evaluation indicates little justification for a prospective indemnification program under any of these categories.

Confidential Business Information

No EPA indemnification program seems warranted for losses resulting from unauthorized disclosure of confidential business information (CBI). Both negligent and intentional unathorized disclosures are arguably subject to a suit for money damages under the Federal Tort Claims Act. The extent of such disclosures appears to be quite limited, and there are both criminal sanctions against intentional disclosure and elaborate security provisions under FIFRA and TSCA which are designed to safeguard CBI. Additionally, congressionally-authorized disclosures by the Agency are comparable to other regulatory burdens that do not require compensation.

Delays

An indemnification program also does not seem warranted to deal with the alleged problem of losses due to delays in government permit processing. Both industry and EPA representatives concerned with the problem of permit delays have focused on remedial solutions other than indemnification. Furthermore, several studies have indicated that regulatory problems are not often significant causes of delays in construction of new power plants and other industrial facilities. Instead, many delays result from such problems as financing, labor and equipment availability, and management difficulties.

Conflicting Regulatory Requirements

The theoretical problem of conflicting and overlapping regulatory requirements does not appear to be a problem warranting an indemnification program. While the type of interacting requirements that allegedly posed difficulty in the Tris case may well be deemed to justify indemnification, no similar interactions appeared in a review of EPA programs. At worst, the examples found represent compliance costs made necessary by reason of other regulatory standards. This is not normally regarded as a basis for indemnification, but rather an ordinary business consequence of any regulatory program.

Emergencies

Although emergency action seems theoretically to provide increased chances for creating an indemnifiable loss, the Agency has very rarely used its emergency authority to curtail private operations. The enactment of CERCLA has provided EPA with authority for a coordinated response to any emergency caused by release of hazardous materials, according to the National Contingency Plan. Together with Superfund, which permits the government itself to take action in some cases, the new law replaces an *ad hoc* response by court

injunction with a planned, publicized and coordinated approach. This reduces the possibility of inequity, to the point that there is no current justification for recommending an indemnity program for losses caused by emergency action.

Unreasonable Enforcement

An expanded indemnity program to compensate persons subject to unreasonable administrative enforcement is probably not warranted. This is primarily because there is no evidence that clearly unreasonable enforcement exists on more than a very infrequent basis, and because EPA's current enforcement policies and concurrence procedures make such occurrences less likely than ever before. In addition, it would seem preferable to accomplish Agency restraint through traditional avenues of judicial review, rather than indirectly by the threat of indemnification. The former route would encourage loss anticipation and avoidance, while the latter route, if designed effectively, could result in excessive restraint and thus interfere with the Agency's enforcement mission.

Changes in Policy

Changes in policy may sometimes result in losses, but the changes are usually foreseeable and the losses are usually within expected risk parameters. In addition, policy changes are usually an expression of congressional policy or the result of a rational and defensible exercise of discretion delegated to the Agency and are rarely if ever due to Agency negligence or misconduct.

c. Industry consultation disclosed little interest in indemnification as a means of regulatory relief.

Consultation with representatives of the regulated industry indicated:

- Given the controlling statutory provisions, most persons felt that EPA regulatory action is usually supportable. They thought that industry is given a fair opportunity to participate in rulemaking and to avoid unnecessary losses -- especially in comparison to other federal health and safety regulatory agencies.

- Many felt that indemnification is not an important issue and not politically appropriate in the current legislative environment.

- Some expressed greater interest in other regulatory relief to solve particular problems and did not feel indemnification would satisfactorily resolve the problems experienced.

- No persons interviewed described past losses of the nature that would obviously result in an indemnity under any of the theories and factors explored (with the exception of losses related to programs already in place).

- Interest was expressed in keeping existing indemnification programs in place.

2. Other Conclusions Concerning Indemnification on Equitable Grounds

a. Whether indemnification is warranted for an inequity raises complex issues that are best considered in the context of the specific case and not resolved in advance by legislating a prospective indemnification program.

(1) Prospective inequity indemnification programs are not usually desirable unless based on a specific event.

Certain indemnification objectives require that a program be prospective in nature. These objectives include encouraging desirable private action, such as voluntary oil spill cleanup, or discouraging undesirable agency action, such as unreasonable enforcement litigation. However, if the objective is to relieve or correct some inequity, an indemnification program would not normally be necessary until it is clear that an inequity has occurred or will occur. When based on a specific event and the reasonable expectation that there will be repetitions of that event, a prospective program may be justified to avoid the costs and inefficiencies associated with piecemeal legislation.

Otherwise, it is difficult to justify such a program in view of the potential disadvantages. These include: (1) that the program will encourage undesirable behavior on the part of potential recipients (e.g., less carefulness to avoid indemnifiable losses); (2) that it will result in undesirable conduct on the part of the agency (e.g., riskier conduct, knowing that any adverse impacts may be compensated, or inappropriate restraint, in order to avoid the costs or inconveniences involved); (3) that it will be inaccurate in its forecast of the costs involved, the criteria that should be applied, or the appropriate financing mechanisms; and (4) that other significant adverse impacts may have been ignored (e.g., interference with other agency missions).

Once legislation is in place, an agency must act within its scope, regardless of whether it proves to be inappropriate in some respect. Congress, on the other hand, may offer greater assurance of its appropriateness by waiting until events requiring such legislation are clear.

(2) Specific factors supporting or oppossing indemnification may be expected to vary from case to case, and the issues raised are not readily resolved in advance by the design of a general rule.

Whether an inequity has occurred is almost always a function of circumstance and is highly dependent on the character of the injury, its cause, who was at fault (if anyone), whether the injury could have been foreseen or avoided, whether the loss could have been mitigated, and other elements typical of tort law analysis involving issues of fault and remedy. These issues are rarely clear. In fact, tort cases have traditionally provided attorneys with exceptional opportunities to practice their skills of argument and persuasion precisely because each case is unique in some respect. Under tort law, it would not be expected that the answer would be simple or fit precisely within a given rule, and there is little reason to expect for the same issues to be resolved more easily in the context of government indemnification, if any assessment of the inequity is to occur at all.

Aside from the inability to determine the precise elements of an inequity in advance of a specific event, there are other significant barriers to the design of a general rule. Such a rule requires a commitment to a specific future policy, reflecting not only agreement that certain events amount to an inequity requiring redress, but also that compensation (according to some rule of calculation) is the most appropriate means of redress. Such a commitment would be particularly suspect given the traditional rejection of a compensation remedy by Congress except in those narrow circumstances recognized under the Federal Tort Claims Act and the Fifth Amendment.

In fact, our research indicates in every case to date but one, indemnification legislation has been based on specific injuries; and in almost every case the legislation has been exceptional in character and not indicative of a recurrent policy or series of similar events. Moreover, Congress usually prefers some other form of relief, such as an exemption or variance -- or no relief at all, thus creating an incentive among those susceptible to injury to avoid it. In such a climate it appears impractical to forecast the need for indemnification by resolving highly individual policy issues in the absence of specific circumstances in which these issues will arise.

The dilemma becomes all the more apparent if one attempts the design of a theoretical model to use as a guide for inequity indemnification legislation. General criteria pertaining to the nature of the loss, responsibility for the loss, the amount of compensation, a financing scheme, and administration of the program may be readily identified. However, the relative importance of each factor may vary significantly depending upon the perceived importance of indemnification as a policy objective in comparison to other objec-

tives from which indemnfication may detract and depending on the availability of alternative loss avoidance and relief measures which may obviate the need for indemnification.

For example, a difficult indemnification administrative burden may currently be considered unjustifiable if it will require the reallocation of agency resources away from a higher priority pollution control objective to administer the indemnification program. In such a case, a variance may provide sufficient, although only partial relief. However, priorities may later shift so that the pollution control program involved is no longer rated more important when the loss occurs to a specific group, e.g., small farmers in an economically depressed area -- at least with respect to the reallocation of program resources represented by administrative costs. This problem is compounded by the number of factors other than administrative costs which may have an important role in determining the advisability of an indemnification program, as well as the almost endless alternative loss avoidance and relief mechanisms that might be made a part of the rule; and it is rendered virtually unresolvable by the infinite variations in policy preference which may arise due to unpredictable events.

b. Procedural protections may reduce the need for indemnification.

Equity-based indemnification payments have been made in situations in which full procedural due process had not been provided. While this is not the only factor supporting indemnification in those situations, nor does due process or proper procedure always work effectively to prevent a loss, suspension or absence of procedural protections is an important factor which can weigh in favor of granting indemnity.

The participation of affected parties and the public in general in regulatory proceedings provides notice of the agency's intentions, and thus a longer transition period within which to adjust to the regulatory requirements. It provides opportunities to challenge the assumptions or proposed solutions. There is less likely to be an outright error or an unfair devolution of the whole cost of a regulation on one group after public discussion of an issue.

Most environmental statutes facilitate involvement of the public at the earliest possible stage of policy conceptualization. This has been done in response to the need to avoid party actions or unreasonable regulations. There is much organized public involvement prior to any rulemaking, and the agency is frequently facilitating this involvement even when it is not specifically required to do so. However, when an emergency arises, then the procedural protections such as a hearing may be deferred until after the needed action is taken. Usually, though, either Congress or the agency recognizes the

potential danger and will undertake advanced planning to anticipate the way in which such a matter should be handled when it arises. The growing sophistication and sensitivity of the administrative process to this type of problem will probably prevent, in most cases, blunders like the DHEW announcement of the contaminated cranberries. Nevertheless, as in the past, indemnity payments are most likely to be warranted and needed where the process of orderly regulation has broken down.

c. Indemnification for inequities has not resulted in domino-like extensions of indemnification to other situations.

An argument often raised against the use of indemnification as a remedy is that it will establish a legislative precedent that will be difficult to avoid in the future. Numerous requests of a similar nature will arise as a result, with predictable adverse impacts on budget and government administration at a minimum, and possibly interference with other pressing government objectives in addition.

Although it is not possible to state categorically that such concerns are illfounded, it seems unlikely that events justifying indemnification would result in such a domino effect. Two factors would normally prevent it. First, inequities are almost always unique in character. What makes an event inequitable may usually be explained only by describing the entire event and its unique elements of person, time, place, situation, intent and misfortune. The appropriate remedy in such a case, whether it is compensation or some alternative measure of relief, may also be attributed to considerations that apply at that time to that event -- the availability of financing, the availability of an appropriate administrative mechanism, the political support or opposition, etc. These unique aspects of event and remedy should pose for future circumstances only the inconvenience of comparison, not the dilemma of inconsistency.

A second factor involves the capability of Congress to define indemnification objectives and conditions in such a way that the precedential effect is very limited. It is within the power of Congress to pass or reject indemnification legislation for almost any reason, including strictly political reasons (within constitutional limitations); however, a clear description of the factual as well as political basis would forewarn future indemnification constituencies that arguments founded on legislative precedents would be of limited persuasiveness.

A review of proposed and enacted indemnification legislation points out that events for which indemnification has been proposed in the past are unique, that the congressionally formulated remedy has been different in most cases (not always involving indemnification), and that no domino effect has occurred.

d. Some alleged inequities are not unique to EPA, and solutions, if warranted, may need to be government-wide in scope.

Certain alleged problems which might merit consideration of indemnification involve situations that are not unique to EPA and may more appropriately require consideration of broad statutory solutions outside the scope of this study. Such broad statutory solutions might involve either an indemnification mechanism or they may involve broad alternatives to indemnification.

For example, certain losses might be dealt with by amendments to the Federal Tort Claims Act which would reduce some of the Act's exceptions to the waiver of immunity. Specifically, the discretionary function and misrepresentation exceptions might be modified to permit tort suits against the government where certain discretionary functions or misrepresentations are involved. Furthermore, some actions which might not now be covered under the Federal Tort Claims Act could specifically be authorized. For example, it is not clear whether an action against the government for breach of a trade secret could be maintained under the Federal Tort Claims Act. If considered necessary, an amendment to the Act could clarify the point. But limiting consideration and the effect of such changes to EPA probably would not be wise. Piecemeal modification of the Federal Tort Claims Act does not seem advisable. If there are possible problems that are not unique to EPA, then such problems should be handled in a government-wide manner.

e. The private bill process can continue to provide relief of last resort for inequities arising from EPA action.

Private bills have historically provided a process to redress inequities that are not susceptible to a program or plan because they are so unpredictiable in nature or infrequent in occurrence. The existence of such a political process, though it is neither well known nor simple, has sometimes provided a relief valve for cases otherwise barred from the courts. In the past when Congress has become aware of a pattern of similar meritorious grievances presented in private bills, it has enacted general legislation to deal with the problem. Thus, the private-bill process can serve as an interim remedial mechanism until such time as a general relief program proves warranted.

The special jurisdiction procedure, by which Congress removes a legal impediment to an otherwise valid claim in the Court of Claims, is particularly appealing for regulatory indemnification. Congress can waive sovereign immunity or create a special exception to some barrier to relief, tailored to the particular circumstance and having no precedential value. Then it can leave to the court the determination of liability in what is usually a complex factual situa-

tion. Further, by being given jurisdiction, the court can pay any award that it makes out of its own Judgment Fund. This technique is faster, and results in more certainty of payment than the Congressional Reference procedure in which the Court of Claims only advises the Congress, and then sends its recommendation back for final congressional action.

Nevertheless, the private bill process can be lengthy, and there are no guarantees that either Congress or the Court of Claims will act favorably, because the pitfalls of the political process are involved and because all private bills request special exceptions. It should also be noted that private legislation cannot provide the incentives to private action or the disincentives to government action that are the rationale for some kinds of indemnification. Since the remedy is provided ad hoc, perhaps long after the loss and cannot be counted on in advance, it will not affect the behavior of the parties before the fact of loss.

3. Other Conclusions Concerning Indemnification Designed As An Incentive Or Disincentive

a. Indemnification has worked to provide incentives to parties outside the government.

Several indemnification programs demonstrate the benefits of using indemnification to encourage action by parties outside the federal government. These include the diseased animal livestock program at the Department of Agriculture (to encourage destruction of diseased livestock to prevent spread of the disease); the arts and artifacts indemnification program (to facilitate museum display of foreign art for which losses would otherwise be uninsurable); the Superfund contractors indemnification clause (to facilitate the removal and destruction of hazardous waste in circumstances where liability insurance is inadequate); the Clean Water Act innovative technology replacement grants (to encourage municipalities to try innovative waste treatment technology); and the Clean Water Act oil spill cleanup indemnification provision (to encourage dischargers who are not liable for cleanup to do so voluntarily in the interest of ensuring a rapid, effective initial response).

Two major advantages in these indemnity provisions were noted: in some instances they ensure accomplishment of public policy objective that could not be undertaken by the federal government (e.g., immediate, stop-gap cleanup measures); in others, they offer a more economical option than federal action because of efficiencies obtained in private enterprise. However, these programs are not without potential disadvantages. Notable areas of concern include:

- Agency supervision. To the extent that the program establishes an obligation to indemnify, design measures must

be included to ensure that only those actions consistent with Agency (or legislative) priorities are actually indemnified. Under the oil spill indemnity statute, for example, unsupervised cleanup activity could result in the allocation of funds to incidents or specific cleanup costs for a lower priority category. A mechanism employed under Superfund to prevent this occurrence is to require that all expenses be preauthorized.

- Alternative mechanisms. It is possible that the same conduct can be encouraged by other mechanisms, or that natural incentives already exist which make indemnification unnecessary. For example, if specific losses are predictable, it is possible that a procurement proceeding, with concommitant advantages gained by planning and supervision, would prove more economical or more effective. Under Superfund, tough sanction provisions and narrow defenses to liability are thought by some to be more significant cleanup motivation factors than indemnification.

- Congressional and executive oversight. Since incentive indemnification is necessarily prospective in nature, there is a greater risk that the mechanism, as designed, will be off the mark in some respect. In the diseased livestock program, for example, it was determined that federal inspectors, and not the indemnification program, controlled the spread of disease; and indemnification was viewed primarily as subsidy. This factor suggests the need for more careful monitoring and review.

b. Indemnification for the purpose of restraining certain undesirable agency action is not clearly justified based on experience under existing EPA programs. Moreover, the potential for adverse impact warrants very careful consideration before legislating an indemnification program for this purpose.

The argument that indemnification may serve as an effective disincentive to undesirable Agency conduct was raised under both § 15 of FIFRA and § 113(b) of the Clean Air Act. In the case of FIFRA, it was argued that the right to indemnification might prevent precipitous suspension actions by inducing the Agency to compare the costs of compensation to the environmental risks involved in permitting existing pesticide inventories to be used up. In the case of the CAA, it was argued that unreasonable judicial enforcement action might be prevented by awarding attorney fees to the opposing party whenever a court determined the action to be unreasonable.

Under both statutes, experience indicates that the indemnification provision has had minor if any impact as a disincen-

tive, and that other factors have been far more effective in accomplishing desired restraint. Under the CAA, for example, enforcement screening procedures for all judicial actions are so thorough (involving numerous layers of EPA and Department of Justice review), that there have been very few complaints relating to error or harrassment. Under FIFRA there is a greater likelihood that the question of indemnification may have been persuasive within the Agency as a negative factor when considering an emergency ban. However, in the relatively few cases in which suspension proceedings have ensued, the Agency has indicated that either such bans were imposed or the scientific evidence supporting a ban was insufficient. Further, it is widely felt that the burden and complexity of procedural requirements under § 6 have served as a primary disincentive to the Agency's reliance on suspensions, thus preventing the indemnification issue from arising at all except on a very infrequent basis.

As an effective disincentive, however, the indemnification provisions may be deficient for a more significant reason. Currently, neither provision has actually posed the threat of a significant adverse impact on the Agency. Administration has proven to be feasible without significant costs, and the Agency budget has not been responsible for the actual payout of awards.

In either case, it would be theoretically possible to make the disincentives more relistic -- for example, by taking award payments out of the operating budget of the office involved (without access to a supplemental appropriation, as one version of the Equal Access to Justice Act would have required), or by forcing the officials involved to undertake such burdensome administrative requirements that their primary mission would necessarily be interrupted. Such an approach would be exceedingly difficult to justify in most circumstances, however, unless the underlying regulatory mission were insignificant in comparison to the policy favoring indemnification. Two risks are raised: that the disincentive will not work, in which case the indemnification remedy would exact its toll on the Agency mission (as intended); and that the disincentive will work too well, in which case the Agency may be deterred from taking any action at all.

If restraints on Agency action are deemed necessary, it would appear more logical to address this need directly by imposing procedural hurdles, expedited review, or new statutory criteria for the action rather than indirectly by establishing economic disincentives, which may have unpredictable and costly results.

APPENDIX A

BACKGROUND ON INDEMNIFICATION

I. GENERAL COMPENSATION PROVISIONS

A. Introduction

The concept of sovereign immunity, which bars a suit against the government except with its permission, provides a key to understanding the question of indemnification by the government. Although the doctrine protects the government from being legally forced to provide compensation to injured parties, there are circumstances where, by either constitutional provision or statute, the government has allowed itself to be sued for money damages. Specifically, the Fifth Amendment requires compensation when private property is taken for public use; and contract claims and some tort suits against the government have been authorized by statute.

Judicial actions for damages, however, are narrowly prescribed, and compensation is not generally provided in circumstances not involving a taking of property, a contract claim, an action under by the Federal Tort Claims Act, or some other specific waiver of immunity. Of course, there have been exceptions to the general tendency against indemnification, but these have involved unique circumstances, and the judgment to grant indemnification has been made on a discretionary basis.

The traditional limitations on indemnification for the adverse effects of governmental actions partly involve a belief that situations that might require indemnification should be avoided so as to make such payments unnecessary. If a loss cannot be avoided, then payment of an indemnity is generally viewed as inappropriate. A large part of the attitude stems from a fear of creating precedents which would require the government to make indemnity payments for a wide range of regulatory activity. This position has been articulated and exemplified by numerous authorities, including fifth amendment taking decisions, hearings on congressional reference bills, court of claims opinions in congressional reference cases, and Federal Tort Claims Act decisions.

B. The Federal Tort Claims Act

1. Background

Over a century ago, the United States began selectively waiving its immunity from suit by enacting various laws allowing contract claims, patent infringement claims, claims arising out of the activities of government-operated railroads and utilities, and admiralty and maritime tort claims against the federal government. However, until the passage of the Federal Tort Claims Act (FTCA) in 1946, if a person suffered personal injury, property damage, or other finan-

cial loss due to the negligence of a federal employee acting on behalf of the federal government, no court action was available for the assessment of damages.[1]

Thus before 1946, a person who sustained injury from the tortious actions of the federal government was required to seek compensation from Congress. Unless the claim fell within one of the limited categories for which Congress had statutorily waived immunity (e.g., admiralty and maritime tort claims), it was necessary for the claimant to convince Congress to pass a private act covering the specific claim and appropriating funds for the payment of damages.

As early as 1832, John Quincy Adams complained that Congress was spending half of its time considering private business, and expressed concern that the system was inefficient and inconsistent. Partially in response to this concern, Congress began, in the mid-1800s, to waive immunity for certain specified claims and to allow courts to take over some of the burden. By the 1940's, increased efforts were made to find a way to relieve Congress of its burden of private legislation and to find a more equitable way to adjust the growing number of tort claims arising out of expanding federal activity. The solution adopted was passage of the FTCA in 1946, which provided that the federal government, with certain significant exceptions, could be sued for the torts of federal employees acting within the scope of their employment.[2]

2. FTCA Program Administration

Any individual, corporation, or other legal entity, with the capability to sue as such, is eligible to file a claim or pursue a lawsuit under the FTCA. There are several prerequisites for a claim:

- A personal injury, property loss or death must have been suffered;
- The injury must have been caused by the negligent or wrongful act or omission of a federal employee acting within the scope of his employment;
- The conduct causing injury must be a tort under law of the state where the conduct occurred; and
- The conduct causing injury must not be within any of the FTCA exceptions.

Before filing a lawsuit, claimants must present their claims to the appropriate agency for administrative adjustment. Agency heads have the authority to compromise or settle such claims.[3] If a claim is denied, or if the agency head takes no action on the claim for six

EXHIBIT 1

CLAIMS AGAINST THE GOVERNMENT UNDER
THE FEDERAL TORT CLAIMS ACT

	Total	Asbestos	Aviation	Swine Flu	Radiation	Admiralty	General Torts	Miscellaneous
1980								
Total Number of Claims	2370	35	204	122	11	235	1481	282
Total Amount at Issue	$7,931,523,925	$50,725,000	$1,007,206,900	$348,968,775	$65,000,000	$66,657,396	$3,409,160,495	$2,983,805,359
Judgments Against the Government (i.e., total amount awarded)	$95,681,489	$175,000	$25,298,176	$3,867,438	0	$9,375,215	$49,899,962	$7,065,698
1981								
Total Number of claims	1819	6	171	122	7	212	1124	177
Total Amount at Issue	$13,484,447,265	$34,500,000	$522,133,307	$277,274,645	$34,750,000	$67,179,290	$7,462,878,102	$5,085,731,921
Judgments Against the Government (i.e., total amount awarded)	$74,999,783	0	$13,508,536	$10,407,423	0	$3,263,809	$42,925,471	$4,894,544

months, a lawsuit may be filed. Suits under the FTCA are tried in the United States district courts by judges sitting without juries.

3. Important Exceptions to the FTCA

From the perspective of this indemnification study, the important general exceptions to the waiver of immunity are those involving discretionary functions and misrepresentation. The exception covering interference with contract rights also is relevant.[4] These exceptions effectively shield most governmental regulatory activity from tort suits, although there are a few cases where this shield has been pierced to a very limited extent. In particular, some courts have allowed personal injury suits against the government for negligently conducting a government safety inspection, such as a mine safety inspection.

a. Discretionary Function Exception

The discretionary function exception of the FTCA excludes, from the waiver of immunity claims based upon "the exercise or performance or the failure to exercise or perform a discretionary function or duty. . . ."[5] The exception applies both to negligent conduct and wrongful acts involving an abuse of discretion.

While the courts have not established an absolute definition of discretionary functions, their opinions have focused on the nature and quality of the discretion involved in the activities that are the subject of the complaint. The key determinant seems to be whether a policy judgment or the formulation of policy related to the public interest is involved. One court has noted several considerations or determinations that are usually involved in policy-oriented discretionary decisions which are immune from suit:

- The evaluation of the feasibility or practicability of government programs;
- The balancing of cost and benefit factors in government programs;
- The establishment of priorities due to limitations of available resources;
- The balancing of competing policy considerations in determining the public interest; and
- The promulgation of new policies through regulation.[6]

In recent years, courts have focused on a distinction between policy judgments and operational activities in order to interpret and apply the discretionary function exception.[7] Where the

courts have found culpability in the execution of operational tasks (such as maintenance of a road, a rescue operation at sea, auditing a federal credit union, use of an automobile, and handling hazardous materials such as explosives), they have generally found the government liable under the FTCA. On the other hand, where they have discovered culpability in the nature of the undertaking itself or in decisions at the policy or planning level, the courts have usually held that the exception applies. For example, agency decisions to issue regulations, seize and detain property, prosecute, preserve wildlife, accept bids and contract renewals, and run supersonic flights have all been considered policy or planning matters, covered by the exception and immune from liability.

Generally, when the government decides to establish and operate a particular program, that policy decision is an exercise of discretion at the planning or policy formulation level, and exempt from the waiver of immunity under the FTCA. However, once the discretion is exercised and the decision made, government employees have no discretion to operate the program negligently.[8]

The setting of standards and the application of those standards through the establishment of regulations clearly involve discretionary policy judgments. On the other hand, application of the regulation to particular parties and specific compliance, inspection, and enforcement activities might, under certain circumstances, be regarded as operational rather than discretionary. In particular, limited functions of lower level officials, which are required by rules and regulations and which clearly specify when official action is required, fall within the operational category and are not covered by the exception. Of course, a determination of whether the government official has discretionary authority requires a careful case-by-case evaluation of the particular statute or regulation involved. The courts also seem to consider whether or not the statute, regulation, or nature of the activity allows the claimant to rely upon the government activity's being handled properly.[9]

Many claims under the FTCA have been for damages alleged to have been caused by the negligent issuance or wrongful failure to issue a permit, license, contract, certificate, or other government clearance or authorization. In the great majority of cases, courts have held that the decision whether or not to issue such government authorization involves the consideration of a multitude of factors, some of which may be political and non-justiciable, thereby rendering the activity discretionary within the meaning of the FTCA exception.[10]

In governmental inspection programs, the shield of the discretionary function immunity may be breaking down. During the last decade, a number of personal injury claimants have been successful in cases based upon negligent government inspections where the courts have found the inspection to be an operational function involving professional expertise but little discretion.[11]

Consistent with the policy/operational distinction, EPA decisions to establish an Agency program, regulate a particular activity, issue policy guidelines or locate a facility would be discretionary planning or policy decisions protected by the statutory exception. Generally, licensing, permit and certification activities are similarly protected. However, a negligent action or omission by EPA personnel in implementing the programs could be the basis of a suit under the FTCA.

b. Misprepresentation Exception

As with the discretionary function exception, the misrepresentation exception to the FTCA waiver of immunity relates to the subject matter jurisdiction of the court. The misrepresentation exception prohibits "any claim arising out of . . . misrepresentation . . .," and the exception applies both to negligent and intentional misrepresentation.[12] In construing this provision, the courts have ruled that "misrepresentation" will be considered according to the traditional and commonly-held legal definition of the tort as interpreted under federal, rather than state, laws.[13] As decided by the federal courts, misrepresentation includes the failure to provide information as well as providing information that is wrong.[14]

The misrepresentation exception can cover actions involving personal injury, wrongful death, property damage, or financial or commercial loss. Most cases considering the applicability of the misrepresentation exception also involve the discretionary function exception. Generally, the courts been more likely to deny claims for commercial losses than claims involving bodily injury on the basis of the misrepresentation exception.[15]

In cases where faulty flight information from air traffic controllers has caused an accident, the controller's advice has been regarded as an operational task negligently performed, and the misrepresentation exception has been held inapplicable.[16] On the other hand, one area in which the misrepresentation exception has consistently been held to apply is in claims by disappointed bidders for the construction or repair of government property.[17]

A central issue in many misrepresentation cases is the actual source of the claimant's harm. The courts have held repeatedly that there is a distinction between negligent misrepresentation and negligent conduct, with recovery as a result of the former being barred by the misrepresentation exception to the FTCA.[18] In the regulatory context, there have been a number of misrepresentation cases involving inspections, certifications, and permits where the misrepresentation exception has shielded the government from suit.[19]

> governmental body. Only the second and third situations are thought of as takings today.[22]

The Supreme Court recently explained the reason for a restrictive approach to compensation for regulatory constraints:

> Suffice it to say that government regulation--by definition--involves the adjustment of rights for the public good. Often this adjustment curtails some potential for the use or economic exploitation of private property. To require compensation in all such circumstances would effectively compel the government to regulate by purchase. "Government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law."[23]

The Takings Clause of the Fifth Amendment traces its origins to the law of England, but it also reflects both the colonial experience and dominant legal thinking of that time.[24] Flowing first from the Magna Carta, basic rights regarding property were brought to America by the English colonists. In the eighteenth century, eminent domain also became recognized and accepted in the American colonies as an inherent and necessary power of government. At the same time, private parties were afforded compensation for the loss of their property to public use.

During the nation's first century, the taking issue was rarely raised. When the issue did arise, the concept of a compensable taking was limited by the courts to an actual seizure of land by the government. The Supreme Court's first major treatment of eminent domain and the police power came in 1887.[25] The claimant there was a brewer whose business was rendered worthless when Kansas enacted a prohibition statute. The Supreme Court concluded that the statute was a valid exercise of police power, which involved no direct invasion of claimant's property. While the statute impaired the use of the property, there was no taking found because the government had the power to regulate property in order to abate a nuisance.[26] With increasing population, rapid economic growth, and urbanization in the late nineteenth and early twentieth centuries, the courts continued to uphold regulations preventing nuisances to the community as a valid exercise of police power and not a taking.

In 1922, the Supreme Court reversed its earlier line of cases and stated that the constitutional question with respect to taking turned primarily upon the degree of economic harm imposed by the government regulation.[27] In the few cases since then, the Supreme Court has refused to adopt any binding rule for determining where regulation

ends and a compensable taking begins.[28] This ambiguity has permitted the courts to judge each case on its own merits. However, it has left no satisfactory rationale from which to define the distinction between police power and taking.

The current approach of case-by-case determinations of whether a taking has occurred began in 1922, when the Supreme Court dealt with a statute that forbade the mining of coal in such a way that would affect the structural soundness of any house.[29] The effect of the statute was to deny to the owner of mineral rights to a particular property the right to mine for coal. Since the value of coal can only be obtained if it is mined, the mineral rights became worthless. The court held that the statute was an unconstitutional exercise of the state's police power, with the diminution in value of the property being the key determinant that the statute amounted to a taking. It was the recognition that when the diminution "reaches a certain magnitude, in most if not in all cases there must be an exercise of eminent domain and compensation to sustain the act."[30] The decision thus set out the mode of analysis that the constitutional question of a taking depended upon the degree of injury imposed by the regulation. To a certain extent the court also relied upon balancing the public gain against the private loss, although the term "balancing of interests" was not stated.[31]

Thus, an unconstitutional taking can be implied from a substantial and burdensome interference by the government with a private property owner's use of the property. To constitute such an implied or de facto taking, government interference with private property rights must be so substantial as to deprive the owner of all or virtually all of his or her interest in the property. As a result, there is no taking in the constitutional sense, unless the interference is so substantial as to render the property worthless or useless.

In a 1958 Supreme Court case, owners of gold mines, closed in 1942 by direction of the War Production Board (WPB), unsuccessfully sued the federal government to recover damages for an alleged taking of property.[32] The Court stated:

> [T]he mere fact that the regulation deprives the property owner of the most profitable use of his property is not necessarily enough to establish the owner's right to compensation.[33]

Since the mine closures did not amount to a disposal of the owners' property or transfer of their workers, the Court concluded that the WPB order did not constitute a taking.

In a 1979 decision, plaintiffs were charged with violations of federal statutes prohibiting commercial transactions in protected birds.[34] The Supreme Court explained that a reduction in the value of

property was not necessarily equated with a taking, even though the most profitable use of the property was lost. In this case the specific regulation did not compel a surrender or physical invasion or restraint upon the bird artifacts. Nor was all economic benefit denied to the owners. The Court concluded that the cost of regulation is a burden borne to secure "the advantage of living and doing business in a civilized community."[35] Similarly, in a 1980 taking case, the Court upheld a rezoning of land overlooking San Francisco Bay, because the ordinance in question only limited the number of residential units that could be built on the property and did not extinguish a fundamental right of property.[36]

It is unlikely that EPA programs will result in a judicial finding of a constitutional taking. As a practical matter, the taking issue is most likely to be raised in the regulatory context where EPA may be exercising its powers to control air pollution, toxic chemicals, or the use of confidential business information submitted to the Agency. In regulatory cases, the courts seem to employ a sliding scale, balancing the public health or interest against the individual's property right. The regulatee must demonstrate a near total destruction of the usefulness and value of this property right.

In one EPA case, a number of environmental groups, state governments and utility companies sought review of regulations promulgated under the Clean Air Act to prevent significant deterioration of air quality in areas that have air cleaner than the National Ambient Air Quality Standards.[37] Responding to plaintiffs' constitutional challenge, the D.C. Circuit ruled that regulation of air pollution is within the federal government's Commerce Clause powers. Concluding that these regulations could not be an unconstitutional taking, the court explained that, while the use of private land was limited, such a limitation was not so extreme as to represent an appropriation of the land.

The First Circuit similarly upheld an EPA transportation control plan that mandated a 40% reduction in available off-street parking spaces.[38] In refusing petitioners' constitutional arguments, the court focused on the fact that this was a regulation of uses, that no title was taken, and that other uses remained available.

Recently, the 1978 FIFRA amendments relating to agency use of test data submitted by one applicant to support a subsequent pesticide registration application by another applicant has been the subject of constitutional challenge. Thus far, the courts have concluded either that plaintiffs in these cases do not have a property right in the data or that the statute does not effect a taking.[39]

A number of taking cases in the environmental field have been deemed to be premature. For example, a pre-enforcement constitutional challenge to the Surface Mining Control and Reclamation Act was held

not to be ripe because "mere enactment" of the statute did not constitute a taking.[40]

II. CONGRESSIONAL REFERENCES AND OTHER PRIVATE BILLS

Congress has historically used private legislation to provide relief to those who have suffered a loss at the hands of the government and have no other means of recovery. Precisely because they are available when exceptions to the Federal Tort Claims Act and other limitations apply, private bills have constituted a safety valve for exceptional cases.

There are three types of private legislation presently used by Congress. All can be used as relief from the strictures of sovereign immunity in exceptional circumstances. The largest category consists of private bills handled entirely within the legislative process and funded by special appropriations. Congress enlists the assistance of the Court of Claims for the two other categories of private bills, however. Congressional reference cases are those private bills referred to the commissioners of the court of claims for hearings, findings, and a recommendation to Congress. The cases are later transferred back to the legislative body for final decision, and for special appropriations if a claim is awarded. Bills of special jurisdiction provide relief indirectly in the form of lifting a jurisdictional barrier. A special jurisdication is conferred on the Court of Claims for that case only, but it is final. Judgment, if any, is paid out of the court's Judgment Fund.

A. Private Bills

Private bills are produced by a legislative process and passed by a legislative body, but they do not have the general applicability that is usually characteristic of legislation and fundamental in guaranteeing equal protection. They are specific to a particular person or situation. It can be difficult to draw a line between public and private legislation because some public legislation (some tax bills, for example) is so narrowly drawn as to apply only to a very few people, though the language seems to be general. Most private bills have nothing to do with the costs of regulation, concerning instead things such as moving expenses for government employees, pensions, and permission to immigrate.

The Constitutional basis for private legislation is found in Article I, § 8. Congress is empowered to "pay the debts . . . of the United States." This has been held by the Supreme Court for nearly 100 years to include moral or honorary debts as well as legal ones:

> The term 'debts' includes those debts or claims which rest upon a merely equitable or honorary obligation, and which would not be recoverable in a court of law if existing

facts, or written evidence that the Administration has withdrawn its opposition. Also, as a practical matter, since there is not wide interest in any bill, it would be difficult to muster the two-thirds majority in both houses to override a veto.[49] There have, in fact, been few vetos, most of them in cases in which the statute of limitations had been waived for a tax case.[50] These are explained by a very strong administrative interest in the finality of tax determinations.

The number of private bills has declined for a number of reasons. Many situations that once required private legislation may now be remedied through the regular judical system. The Federal Tort Claims Act is a prime example of a permanent waiver of sovereign immunity for cases that had previously been handled by private bills. Other similar statutes provide causes of action to prisoners for injuries suffered in prison, and to government employees for waivers of overpayment of wages.[51]

B. The Court of Claims

The Court of Claims was established in 1855 to help Congress with the large volume of private bills.[52] The original court was an advisory board, hearing claims and reporting its findings and opinions, together with recommended legislation, to Congress. It quickly became evident that this would not provide the help needed. President Lincoln thought the problem important enough to address in his first State of the Union message:

> It is as much the duty of Government to render prompt justice against itself, in favor of citizens, as it is to administer the same between private individuals. . . It was intended by the organization of the Court of Claims mainly to remove this branch of business from the Halls of Congress; but while the court has proved to be an effective and valuable means of investigation, it in great degree fails to effect the object of its creation, for want of power to make its judgments final.[53]

Two years later, the Congress had acted on President Lincoln's suggestion. The decisions of the Court of Claims were made final judgments with appeal to the Supreme Court.[54] However, the independence of the court continued to be hindered because it could not pay judgments until after appropriations had been "estimated" by the Treasury. This provision was repealed in 1866.[55] After several changes in the way judgments of the court were funded, the present system was established, giving the court maximum independence from Congress.[56] A judgment creditor need only submit a certified copy of the judgment to the General Accounting Office to be paid. Congress replenishes the

judgment fund periodically in lump sums. This minimizes the possibility that a particular claimant will be denied payment by Congress after award by the Court of Claims.

The jurisdication of the court has been expanded by a number of statutes. The best known is the Tucker Act, which describes the general jurisdiction of the court:

> The Court of Claims shall have jurisdiction to render judgment upon any claim against the United States founded either upon the Constitution, or any Act of Congress, or any regulation of an executive department, or upon any express or implied contract with the United States, or for liquidated or unliquidated damages in cases not sounding in tort. . . .[57]

The Court of Claims now has jurisdication over most money claims against the government, with the prominant exceptions of tort and pension claims.[58] In all cases the government is the defendent and there is no jury trial. In the year ending September 30, 1981, the Court of Claims heard 772 petitions involving 2,304 plaintiffs.[59]

C. Congressional Reference Cases

The desirability of having a judical body render assistance to Congress in deciding private relief bills has long been evident, but it was not until 1966 that a procedure was perfected. In 1962, the Supreme Court found the Court of Claims to be an Article III court (part of the Judicial, rather than the Legislative Branch of government).[60] Until then, both judges and commissioners[61] on the court had participated in the resolution of reference matters for Congress. Although the Court did not explicitly decide the issue, both the majority and concurring opinions suggested that congressional reference jurisdiction was incompatible with the judicial power of an Article III court because it involved advisory opinions rather than active controversies.[62] The Court of Claims thereupon largely ceased to accept new reference cases, though it continued work on those pending.[63] Four years later, Congress revised the congressional reference statutes to provide that only the trial commissioners, not the Article III judges, would take reference cases. The standard of recovery in the statute did not change:

> The trial commissioner . . . shall proceed in accordance with the applicable rules to determine the facts, including facts relating to delay or laches, facts bearing upon the question whether the bar of any statute of limitations should be removed, or facts claimed to

> excuse the claimant for not having resorted to any established legal remedy. He shall append to his findings of fact conclusions sufficient to inform Congress whether the demand is a legal or equitable claim or a gratuity, and the amount, if any, legally or equitably due to the claimant.[64]

The procedure followed for the congressional reference cases is similar to that for other private bills,[65] except that the committee passes a resolution to refer a bill to the court, rather than to pay compensation. These are one house resolutions. It is not until the case is transmitted back to Congress from the commissioners that the bill embodying the award is passed by both houses. Congress has followed the recommendation of the commissioners in nearly all of about 100 reference cases since World War II.[66]

The reference procedure is very little used now. It has been a year since the last case was referred to the court, and only five reference cases are under consideration in the Senate.[67] This may be due, in part, to the unfamiliarity of the legal profession with the reference procedure, and to the fact that congressional committees are more likely to decide the cases themselves.

Although there is still some debate about what is meant by an "equitable claim or a gratuity," the case that seems to embody the majority view is Burkhardt v. United States, where the Court said that

> [T]he term "equitable claim" as used in 28 U.S.C. 2509, is not used in a strict technical sense meaning a claim involving consideration of principles of right and justice as administered by courts of equity, but the broader moral sense based on equitable considerations.[68]

Many congressional reference cases have since read Burkhardt's definition of equity into the statute. In spite of the expansiveness of the standard, it by no means indicates that a favorable recommendation is made in all congressional reference cases.[69]

Many recent congressional reference decisions have added a more concrete standard to help separate the equitable claims from the merely gratuitous -- that the plaintiff base its claim on some unjustified act or omission of the government.[70] The requirement of fault is still a matter of controversy.

D. Special Jurisdication

The last category of private bills are those that confer special jurisdication on the Court of Claims for a particular case. These usually remove some affirmative defense of the government such as res judicata or an expired statute of limitations. The judgment of the court is final in these cases, and they are not transmitted back to Congress for approval or appropriations.

The Supreme Court has held that directing the Court of Claims to decide a case on the merits after removal of a legal impediment does not unconstitutionally interfere with the separation of powers.[71] The basis of congressional authority is the power to determine and pay debts. In Sioux Nation, the Supreme Court held that precedents "clearly establish that Congress may recognize its obligation to pay a moral debt not only by direct appropriation, but also by waiving an otherwise valid defense to a legal claim against the United States."[72]

An example of a past special jurisdication bill granting indemnification is the Mizokami Brothers spinach case. The private law directed the court to decide the case notwithstanding the fact that it clearly fell within the misrepresentation exception of the Federal Tort Claims Act.[73] The court awarded damages for the mistaken determination that the spinach was contaminated with a pesticide.

In addition to waiving a defense, special jurisdiction bills sometimes direct the Court of Claims to take particular factors into consideration in its decision. Such instructions are consistent with the rule that the sovereign may condition its consent to suit.[74] The bill providing compensation for losses due to the ban of Tris-treated children's sleepwear is a current example of a special jurisdiction bill containing criteria for decision.[75]

USDA DISEASED LIVEST[redacted] INDEMNIFICATION PROGRAM

ESTIMATED OBLIGATIONS FOR INDEMNITIES

(Dollars in Thousands)

	Brucellosis	Cholera	Scrapie	Tuberculosis	Newcastle	Total
1970 - Actual	$ 1,245	$3,748	$ 55	$ 153	$ ---	$ 5,201
1971 - Actual	1,184	2,064	33	456	---	3,738
1972 - Actual	3,175	788	17	678	6,410	11,068
1973 - Actual	4,163	3,129	21	977	24,393	32,683
1974 - Actual	4,771	46	12	627	507	5,963
1975 - Actual	8,354	---	28	1,072	41	9,495
1976 - Actual	12,821	479	38	1,446	55	14,839
TQ - Actual	2,271	912	2	167	1	3,353
1977 - Actual	10,784	2	10	1,579	854	13,229
1978 - Actual	14,768	---	124	1,761	---	16,653
1979 - Actual	14,666	---	68	329	823	15,886
1980 - Actual	18,963	---	347	2,102	740	22,152
1981 - Actual	26,548	---	358	1,293	416	28,615
TOTALS	$123,713	$11,168	$1,113	$12,640	$34,240	$182,875

Source: Division of Veterinary Services, Animal and Plant Health Inspection Service, USDA.

III. NON-EPA INSTANCES OF INDEMNIFICATION

A. Agricultural Indemnities -- Subsidies and Incentives

More indemnification programs are connected with agriculture than any other single enterprise. To a certain extent, this fact reflects a policy favoring agricultural subsidies, in keeping with the national interest in a healthy agriculture sector. It may also be a reflection of the political power of farm interests. There are also more specific and substantive reasons for the indemnity programs, however. One is that the losses to which the agricultural indemnities respond are frequent and predictable, both in the sense that farmers are certain to suffer losses of these types and that there has been sufficient experience to estimate the size and frequency of the losses. When there are a large number of losses, it is much more efficient to set up a program that can respond automatically rather than treating each one separately.

Pesticide problems are the basis for most of the agricultural indemnity programs. All except the animal disease program address the problem of a farmer caught between the conflicting goals of using pesticides to increase productivity and protecting the public food supply from contamination by dangerous residues. When food is barred from the market because of unacceptable pesticide residues, notwithstanding the farmer's lawful use of them, part of the loss has consistently been shifted to the government.

1. Animal Disease

The animal disease program is the oldest statutory indemnity program,[76] and probably the most costly. It accompanies and supports a cluster of programs aimed at the erradication of particular livestock diseases. The money paid for destruction of diseased and exposed animals acts as an incentive for farmers to cooperate.[77] Over the years the USDA has adjusted the payments so that they are high enough to induce support, but not so high as to make diseased animals a "good business."[78] There this is still an incentive for farmers to keep the herds healthy.

The program operates under regulations written by the USDA,[79] but is jointly administered with the states. Animals are inspected by either state or federal officals and, if diseased, are usually appraised at the same time. Indemnification payments are then made quickly. The amount varies, but is usually less than the replacement value of the animal. Regulations set a maximum dollar amount for each disease, with a wide variety of factors to be considered. For example, cattle exposed to tuberculosis are eligible for up to $450 per animal, but combined federal and state payments, plus

salvage, if any, may not exceed the appraised value.[80] The amounts of the awards may be challenged, though they rarely are.[81]

The program is funded by regular appropriations. Each program is separately considered in internal budget development, but none is a line item in the budget sent to Congress. Therefore, up to ten percent of appropriated funds may be shifted from one program to another without congressional approval, if estimates prove incorrect. If the Secretary of Agriculture declares a national disease emergency, funds for erradication and indemnification may be borrowed from the Commodity Credit Corporation, and later paid back by appropriations. Administrative costs are estimated at 10-12 percent of the amount paid out.[82] As the table on the previous page shows, the total amount paid out is substantial.

2. Dairy and Beekeepers

The dairy[83] and beekeeper[84] programs are not designed to induce behavior changes but to compensate for pesticide-related losses. The beekeepers program compensated for the damage done to bees by pesticides developed as substitutes for DDT.[85] Congress apparently decided last summer that the beekeepers had had enough time to adjust to the change and find ways to protect their bees. The program was thus officially terminated, after OMB had cut its budget for several years. The dairy program remains, but is much reduced from its peak, when $350,000 a year was distributed to dairy farmers who were prevented from marketing milk that had unacceptable pesticide residues through no fault on their part. Apparently, current pesticides are not as persistent, and do not prevent milk from being marketed as often, because only $40,000-50,000 a year is now being paid.[86]

One recent contamination incident threatens to upset the orderly operation of the dairy program. Unacceptable amounts of heptachlor appeared in milk from cows in Hawaii. The source appears to be pineapple wastes. Pineapple companies have been given a temporary exemption to use heptachlor to control mealy bugs. It was thought that mulching and aging the skins and tops reduced the heptachlor content sufficiently. It is not clear whether the process was faulty or whether the feed had simply not been aged long enough. The immediate problem is that there is not nearly enough money in the indemnity budget to cover the potential claims of millions of dollars. The Hawaii congressional delegation is investigating possbilities for aid to the dairy farmers.[87]

Both programs were administered by state and county agriculture stabilization and conservation committees under regulations promulgated by the USDA.[88] The delegation of authority only extended to implementation, however, and the local committees were not permitted to make modifications or waivers. Payments were made quickly, from funds included in the USDA's regular appropriations.

3. The Cranberry Scare of 1959

Early in November of 1959, then Secretary of Health, Education, and Welfare Arthur Fleming, held a news conference to urge the public not to buy cranberries grown in Washington or Oregon. It was feared that these cranberries were contaminated with the herbicide aminotriazole which had been found to cause cancer in rats. The Secretary could not assure the public that cranberries from other states were free of contamination. As a result, virtually the entire cranberry crop remained unsold at the end of the year. This threatened ruin for the cranberry growers, as almost all of their sales are for Thanksgiving and Christmas.

Apparently, the farmers were able to mobilize a great deal of political pressure and, by the beginning of February, 1960, the USDA had designated the cranberry producing states as areas in which the Farmer's Home Loan Administration could make emergency loans. During the next six months, $333,000 was loaned to 30 growers.[89] At the end of March, the White House announced an indemnity program to compensate the growers of untainted cranberries who had been unable to sell their crops due to the scare over the contaminated ones. Under the program, the growers of contaminated cranberries were ineligible to receive indemnification. The USDA used an established fund for the payments.[90]

This was the first time that the FDA had used its power of national publicity to warn the public of an imminent danger. The reaction of the consumers was so immediate and overwhelming, that just the threat of similar publicity has since motivated many other companies to institute voluntary recalls.[91]

B. Indemnity Awarded for Government Error

1. Mizokami Spinach[92]

During the summer of 1962, the Mizokami Brothers shipped ten railroad cars of spinach east from Colorado. The FDA conducted routine paper chromotography tests to check for pesticide residues. Eight of the carloads showed no residues in excess of established tolerances, but tests on two carloads indicated unacceptable residues of heptachlor. Shortly after Mizokami was notified, the two car loads were seized. The growers could not understand what had produced the contamination because they had not used heptachlor. Mizokami hired two chemists (one was the inventor of heptachlor) to do additional tests and to testify for them. Following a hearing, the FDA sent samples to Washington, for a more sophisticated gas chromotography test. The new tests showed no trace of heptachlor, and in a letter of September 24, 1962 the FDA admitted that the original paper chromotography test must have been in error.

In the interim, the Mizokami Brothers had plowed under a good deal of their 1962 crop, presumably because spinach is a fragile commodity that could not be stored until the debate had concluded. The rest of the 1962 crop was sold at reduced prices.

In 1964, a private bill conferred special jurisdiction upon the Court of Claims to hear and render judgment on the claims of the Mizokami Brothers.[93] Although the misrepresentation exception would have precluded recovery under the Federal Tort Claims Act, the court held that the private law had waived sovereign immunity and conceded liability, but had left leaving causation and damages for the court to decide.

The Mizokami Brothers were awarded $301,974.33 in 1969 from the Court of Claims Judgment Fund. Most of the award ($227,399) was for the spinach that was plowed under in 1962, and the majority of the rest for the reduced price sales in 1962 ($49,904). The court also awarded attorney's fees and court costs.

2. Marlin Toy Co.

The only other case in which the Commissioners of the Court of Claims recommended indemnification for an agency error was to the Marlin Toy Company. Two of Marlin's toys were included on a holiday list of banned products for 1973, one described as "without plastic pellets."[94] This was an error as only the version with pellets had been banned, the other was approved. Marlin was unable to rectify the mistake in time for Christmas sales. Because this was clearly a misrepresentation, Marlin had no cause of action under the Federal Tort Claims Act, and instead went to Congress for relief.

CPSC supported the private bills referring the case to the Court of Claims under the congressional reference procedure.[95] On December 19, 1978, the Review Panel advised Congress that Marlin had an equitable claim of $40,000 against the government, payment of which would not be a gratuity.[96] A bill awarding this amount to Marlin was passed by the Senate during the 96th Congress, but not acted upon by the House. No bill was reintroduced during the current Congress.

The incident also led Congress to add § 5(h) to the Consumer Product Safety Act.[97] It creates special exemptions that allow claims based on misrepresentation and deceit otherwise barred by the FTCA. However, the claim may not be made with respect to any agency action, as defined by the Administrative Procedure Act. Although originally applicable only to claims arising before January 1, 1978, the provisions have since been indefinately extended. It is not clear that the Marlin Toy Company could have been successful in making a claim under §5(h). Although the lists of banned hazardous substances are the result of adjudication or rulemaking, they are considered by the Commission to be official actions as they are published in the Federal Register after a vote by the Commission.[98]

C. Indemnification Being Considered for Policy Change

1. Tris Ban

In 1971 and 1974 the Department of Commerce and its successor in administering the Flammable Fabrics Act, the Consumer Product Safety Commission (CPSC), promulgated flame-retardant performance standards for children's sleepwear.[99] Early in 1976, the Environmental Defense Fund petitioned the CPSC to require labeling for Tris-treated garments, based on the results from salmonella mutagenicity tests. On April 7, 1977, after analyzing two rodent feeding studies done by the National Cancer Institute, the CPSC declared children's apparel containing Tris to be banned hazardous substances.

The impact of the Commission's action did not fall evenly on the industry. On the upper end of the manufacturing chain, the chemical production of Tris had apparently ceased by the time of the ban so that the chemical companies had little inventory.[100] On the lower end, the repurchase provision of the Federal Hazardous Substances Act worked well.[101] The goods held by customers were repurchased by retail stores, their merchandise was repurchased by distributors, and the distributors returned it to the manufacturers. There the flow stopped. The American Apparel Manufacturers Association brought suit to compel the CPSC to extend the original ban from just garments to include all fabric treated with Tris. Under court order, the Commission did so. But when it tried to enforce the repurchase provision by having the fabric mills buy from the manufacturers, the mills challenged on the grounds that the procedure used to extend the ban to them had lacked required notice and comment opportunities. Eventually the suits were settled, with the mills agreeing not to challenge the ban on fabric any further, if the CPSC would not enforce the repurchase provisions against them.[102] Suits brought to enforce private rights of repurchase also failed. This left the manufacturers holding the entire inventory. According to testimony in the Senate, the manufacturers are a group of about 100 companies, each having annual sales of under $10 million. The total loss in inventory due to the ban is now estimated at between $50.1 and $56 million.[103]

A public bill to reimburse businesses adversely affected by the Tris ban passed both Houses, but was vetoed by President Carter in 1978. A new legislative proposal would confer special jurisdiction on the Court of Claims to hear and render judgment on claims for losses resulting from the Tris ban.[104] It does not concede federal liability. The bill directs the court to consider many specific factors in determining the validity of the claims and the extent of losses. Among them are:

A) Whether reasonable alternatives to Tris existed at the time of the flammability standard;

B) Whether the claimant could or should have tested Tris for chronic hazards;

C) The degree of good faith of the claimant in complying with the flammability standard, the ban, and export provisions; and

D) The extent to which the claimant relied in good faith on assurances from suppliers.

Chemical manufacturers of Tris may not make claims under this statute. No compensation is allowed for lost profits, proceeds from distress sales, attorneys' fees, or interest. Although special jurisdiction bills often give the Court of Claims some direction, the Tris ban bill is unique in the specificity of its instructions. Most of the factors are aimed at sorting out the equities of the complicated factual situation.

2. Cyclamate Ban

Those holding stocks of cyclamate-sweetened goods when it was banned in 1969 have been trying ever since to obtain indemnification for their losses. The House passed a bill in 1971 that would have given the Court of Claims jurisdiction to hear claims, and specially appropriated an estimated $120 million for payment.[105] No bill passed the Senate.[106] Several years later however, the Senate passed and conveyed to the Court of Claims a congressional reference on the issue of relief for the California Canners and Growers Association.[107] After years of motions, extended discovery, and briefs, the opinion of the trial commissioner is expected soon.

The arguments revolve around the fact that cyclamates had been on the FDA's GRAS list (Generally Recognized As Safe). The industry claims that it reasonably relied on that assessment of the substance, and that it had insufficient warning of an adverse action. The government argues that the listing implied no conclusive determination, and that the industry was well aware of the growing concerns about the substance.[108] As usual, the equities of the situation are not clear, and depend upon an examination of all of the facts.

Even if the trial commissioner recommends an award, Congress will have to pass a special appropriation to fund it. Thirteen years have passed since the loss.

D. Swine Flu Vaccine Program--Specific Incentive Situation

The possibility that liability problems would drive vacine manufacturers out of the business had been a matter of concern at HEW for some time. During the spring of 1976, as the agency planned a mass innoculation against swine flu, it became a more immediate and more

critical issue. Vaccinating tens of millions of people with a new vaccine has an unquantified, but certain risk of serious side effects for some of them. In addition to this, the insurance companies worried about groundless and ultimately unsuccessful suits that they would have to face.

HEW's response to drug company concerns was proposal to assume the duty to warn through the procurement contracts. The insurance companies ultimately refused to provide liability coverage on this basis. Congress discussed indemnity legislation, but failing to agree on a solution, asked manufacturers to resume their negotiations. Into that deadlock dropped news of Legionnaires' Disease, which was suspected for four days of being caused by swine flu. New legislation was introducted giving victims a right to sue the federal government on the model of the Federal Tort Claims Act, instead of providing an indemnity. In less than two weeks the bill was passed by both Houses and signed by President Ford.[109]

In a fairly complicated arrangement, the government agreed to accept the vaccine manufacturers' potential strict product liability for personal injuries due to the vaccine. Under this scheme, an injured victim is permitted to sue only the federal government under the law of his state. If negligence is proved, then the government can in turn recover from the parties responsible for the negligence. The bill also eliminated the possbility that the manufacturers could earn a profit on the swine flu vaccine sold to the government.

Vaccines are a special case, probably not duplicated in situations under EPA's jurisdiction. They are important to public health, highly regulated, and produced by only a few manufacturers because the risks are so great. In spite of the most thorough adherence to government specifications and the greatest degree of care, vacines can cause a certain number of severe adverse reactions in the vacinated population. Swine flu is the only vaccine for which the federal government has assumed liability, however.[110]

There is a national interest in having enough vaccine to prevent an epidemic (even though a swine flu epidemic did not develop). Indemnification was used as an incentive to induce the production of swine flu vaccine, rather than as a subsidy to the entire industry. There also is an element of joint responsibility in this situation, since vaccine making is heavily regulated, and public health is a traditional concern of the federal government.

The Department of Justice has administered the entire swine flu compensation program, including claims processing, settlement and litigation. The administrative costs are paid out of the regular DOJ budget, and the awards are paid in the same manner as Federal Tort Claims Act awards.[111]

As of December 18, 1981, over 4,000 claims totaling $2.95 billion dollars had been filed. Of these, 2,773 (for $1.91 billion) have been denied, and 263 settled administratively (for $6.24 million, rather than the $115 million claimed). Some 1,500 suits have been filed; 845 of them still pending, 341 dismissed, 234 settled (for $22 million rather than the $241 million claimed). DOJ stipulated to liability in 35 cases resulting in awards of $13 million. Sixteen judgments have been for plaintiffs (most are being appealed) and 74 judgments have been for the defendant.[112]

E. Indemnity in the Form of an Ongoing Insurance Program

1. Arts and Artifacts

The Arts and Artifacts Indemnity Act[113] enables the federal government to indemnify American museums for losses incurred in exhibiting internationally loaned art or artifacts. It was passed after the previous Congress enacted special legislation for two specific exhibitions. Interested parties apparently convinced Congress that the problem needed a more institutionalized solution. The cost of insurance had grown to 2/3 to 3/4 of the total cost of putting on an exhibit, and many institutions could not afford such premiums.[114]

The program is administered under regulations promulgated by the National Endowment for the Arts. A rigorous application process insures that most of the 40 final applicants a year are accepted, because those who could not succeed are weeded out before they complete the process. Applications concern such things as packing, shipping, climate control, and security arrangements rather than aethetic merit are or political significance. The Endowment's interest in risk reduction prompts requests to add night guards and impose other conditions. Small institutions which could not handle the stringent requirements alone often go to the International Exhibition Foundation which gives them advise as well as grants. The exhibitor's valuation of the objects is reviewed by an indemnity advisory panel and then by the Federal Council on Arts and the Humanities. A contract between the Council and the museum pledges the full faith and credit of the United States. Funding is provided through special appropriations. When a loss occurs it will be investigated by the government and an assessment certified to Congress. So far, no losses have exceeded the amount of the deductible.

The federal indemnification program does not insure the entire amount of the exhibit. The institutions are required to obtain insurance from private sources to cover a deductible (which ranges from $15,000-$50,000 depending on the value of the exhibit), and the risks in excess of the federal limit of $50 million per exhibit. The program may not obligate more than $400 million at any one time. Although no payments have yet been made, the fact that the museums do not have to purchase insurance for the amount covered by federal

indemnification had saved them an estimated $800 million in insurance premiums by the summer of 1981.[115]

2. Defense Contracts

Although a contingent and uncertain liability like indemnification is usually prohibited by the Anti-Deficiency Act, Congress and the President have made exceptions for contracts that "facilitate the national defense" and are "unusually hazardous or nuclear in nature."[116] Evidently the authority to use indemnification clauses in such contracts has been used frequently, but no claims have actually been paid out by the government. In this case also, the promise of the federal government has been sufficient to accomplish the goal of obtaining services and materials, important to the national defense, that would otherwise not be obtainable because of a possibly unacceptable risk to the manufacturer.

Some agencies have apparently agreed to indemnify even without express authority if the contractors are needed to perform a vital service, such as evacuating plane loads of people from Viet Nam. The Comptroller General sanctioned one such use of indemnification in a contract between the General Services Administration and a public utility.[117]

3. Non-Defense Contractors

Some agencies, arguably within the scope of the "unusually hazardous" exception carved out by the Executive Order, have not used it because they did not want to label their activities. This has been a particular problem for NASA. Its contractors demand some protection against the possible catastrophic loss connected with an event such as the Space Shuttle crashing in a populated area. In its authorization of 1981, NASA received a special authority to indemnify users of the space shuttle against claims for property damage, death or injury to the extent the claims are not compensated by liability insurance, and to the extent that they do not result from negligence or willful misconduct by the user.

An interagency task force, co-sponsored by the Office of Federal Procurement Policy and NASA, has recently completed its draft report and recommended expansion of indemnification authority to cover possibilities of catastrophic loss, which it defines as loss beyond that can be covered by reasonably available insurance, but not necessarily resulting from "unusually hazardous" activity.[118] The National Association of Manufacturers is sponsoring a related bill to indemnify all suppliers of products to the government.[119]

EPA has had several requests from contractors for indemnification provisions in their contracts with the Agency. A potential "host site" asked that the contractors who want to test new pollution con-

trol equipment in its plant be indemnified by the government against possible damage to the plant or interrupted operations. This request was denied. In at least one case, EPA paid the insurance premiums on a special policy for a contractor conducting field operations on hazardous material cleanup. The premium cost $200,000 for $1,000,000 worth of coverage.

In one case EPA has agreed to directly indemnify contractors hired to clean up hazardous waste sites under Superfund. Private insurance for the contractors would have added 10% to the cost of the contracts. (Insurance coverage of $10,000,000 would have cost one contractor $400,000 for one year, and another $320,000 for a $25,000,000 coverage for a year.)[120] EPA designed an indemnification clause to avoid Anti-Deficiency Act problems.[121] The clause covers all damages, even those arising from contractor negligence but, it is conditioned on the availability of funds of the time a claim is made, with the specific proviso that EPA will not promise to seek funds, and that Congress is under no obligation to provide them. Apparently this was sufficient to satisfy the concerns of the contractors.[122] The indemnity clauses are excess liability only, all contractors are required to purchase one million dollars of commercial liability insurance which must be exhausted first.

FOOTNOTES TO APPENDIX A

[1]77 Am. Jur. 2d "United States" § 117 (1975); 91 C.J.S. "United States" § 184 (1955).

[2]See generally 35 Am. Jur. 2d "Federal Tort Claims Act" §§ 1 et seq. (1967); Annot., "Federal Tort Claims Act," 1 A.L.R.2d 222, § 1 (1948); Jayson, Handling Federal Tort Claims (Mathew Bender 1964); H.R. Rep. 1287, 79th Cong., 1st Sess. (1945); H.R. Rep. 2245, 77th Cong., 2d Sess. (1942); Hearings on Bills to Provide for the Adjustment of Certain Tort Claims Against the United States, H.R. 5373 and H.R. 6463, House Judiciary Committee, 77th Cong., 2d Sess. (1942); and Tort Claims Against the United States, Subcommittee of the Senate Judiciary Committee, 76th Cong., 1st Sess. (1940).

Specifically, 28 U.S.C. § 1346(b) confers jurisdiction on the federal district courts and under 28 U.S.C. §§ 2671 et seq. the United States has consented to suit, subject to the following thirteen exceptions under 28 U.S.C. § 2680:

> (a) Any claim based upon an act or omission of an employee of the Government, exercising due care, in the execution of a statute or regulation, whether or not such statute or regulation be valid, or based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused.
>
> (b) Any claim arising out of the loss, miscarriage, or negligent transmission of letters or postal matter.
>
> (c) Any claim arising in respect of the assessment or collection of any tax or customs duty, or the detention of any goods or merchandise by any officer of customs or excise or any other law enforcement officer.
>
> (d) Any claim for which a remedy is provided by sections 741-752, 781-790 of Title 46, relating to claims or suits in admiralty against the United States.
>
> (e) Any claim arising out of an act or omission of any employee of the Government in administering the provisions of sections 1-31 of Title 50, Appendix.

(f) Any claim for damages caused by the imposition or establishment of a quarantine by the United States.

(g) [Repealed]

(h) Any claim arising out of assault, battery, false imprisonment, false arrest, malicious prosecution, abuse of process, libel, slander, misrepresentation, deceit, or interference with contract rights. Provided, That, with regard to acts or omissions of investigative or law enforcement officers of the United States Government, the provisions of this chapter and section 1346(b) of this title shall apply to any claim arising on or after the date of the enactment of this proviso, out of assault, battery, false imprisonment, false arrest, abuse of process, or malicious prosecution. For the purpose of this subsection, "investigative or law enforcement officer" means any officer of the United States who is empowered by law to execute searches, to seize evidence, or to make arrests for violations of Federal law.

(i) Any claim for damages caused by the fiscal operations of the Treasury or by the regulation of the monetary system.

(j) Any claim arising out of the combatant activities of the military or naval forces, or the Coast Guard, during time of war.

(k) Any claim arising in a foreign country.

(l) Any claim arising from the activities of the Tennessee Valley Authority.

(m) Any claim arising from the activities of the Panama Canal Company.

(n) Any claim arising from the activities of a Federal land bank, a Federal intermediate credit bank, or a bank for cooperatives.

[3]In adjusting claims administratively, agency heads must follow any regulations prescribed by the Attorney General, and obtain his prior written approval for any award greater than $25,000. If admi-

nistrative adjustment proves unsuccessful and a lawsuit if filed, the Attorney General, or a designee of the Attorney General, may settle the case out of court.

[4]Supra note 2. 28 U.S.C. § 2680(h).

[5]18 U.S.C. § 2680(a). See Reynolds, "The Discretionary Function Exception of the Federal Tort Claims Act," 57 Geo. L.J. 81 (1968); and James, "The Federal Tort Claims Act and the Discretionary Function Exception: The Sluggish Retreat of an Ancient Immunity," 10 U. Fla. L. Rev. 184 (1957).

[6]Blessing v. United States, 447 F. Supp. 1160, 1178 (E.D. Pa. 1978).

[7]See generally, 35 Am. Jur. 2d "Federal Tort Claims Act" §§ 15 et seq. (1967); Annot., "FTCA-Permits, etc.," 35 A.L.R. Fed. 481 (1977); Annot., "Law Enforcement as Discretionary," 36 A.L.R. Fed. 240 (1978); Annot., "Maintenance of Public Property," 37 A.L.R. Fed. 537 (1978); Annot., "Federal Tort Claims Act," 99 A.L.R.2d 1016 (1965); Annot., "FTCA-Exceptions," 6 L. Ed. 2d 1428 (1962).

[8]For example, in Eastern Airlines v. Union Trust Co., 221 F.2d 62 (D.C. Cir. 1955), it was held that the government's determination of the location of an air traffic control tower is a discretionary planning decision which falls within the discretionary function exception to the FTCA. However, an operator's negligence in clearing two planes for landing on the same runway at the same time is not protected by the discretionary function exception.

[9]For example, a party may be entitled to rely upon the government's non-negligent handling of a rescue operation at sea or the proper enforcement of mine safety standards under a safety inspection program. See, e.g., Eastern Airlines, id. and Raymer v. United States, 482 F. Supp. 432 (W.D. Ky. 1979).

[10]Barton v. United States, 609 F.2d 977 (10th Cir. 1979) (temporary discontinuance of livestock grazing permits, Bureau of Land Management); Thompson v. United States, 592 F.2d 1104 (9th Cir. 1979) (permit to sponsor motorcycle race on public property, Bureau of Land Management); Myers & Myers, Inc. v. United States Postal Service, 527 F.2d 1252 (2d Cir. 1975) (award of transportation contract); Coastwise Packet Co. v. United States, 398 F.2d 77 (1st Cir. 1968), cert. denied, 393 U.S. 937 (1968) (certificate of inspection, Coast Guard); Boruski v. Division of Corp. Finance, 321 F. Supp. 1273 (S.D.N.Y. 1971) (registration approval, Securities and Exchange Commission); Hooper v. United States, 331 F. Supp. 1056 (D. Conn. 1971) (permit to construct power-generating station, Corps of Engineers); Marr v. United States, 307 F. Supp. 930 (E.D. Okla. 1969) (pilot's license and certificate of convenience and necessity, Civil Aeronautics Board).

[11]In Griffin v. United States, 500 F.2d 1059 (3d Cir. 1974), a decision involving negligent inspection and approval of oral polio vaccine, the court found that the inspector's action was of a non-policy, professional nature and that the discretionary function exception was not applicable.

In a mine safety inspection case the discretionary function exception was held not applicable to protect the government against liability resulting from injury when an inspector allowed an extension of time for the correction of an obviously hazardous condition. Raymer v. United States, supra note 9. Noting the clear statutory mandate for vigorous enforcement, the court held that the inspector's function was operational in that he had no discretion to grant a time extension and he was negligent to do so.

[12]28 U.S.C. § 2680 (h). United States v. Neustadt, 366 U.S. 696 (1961). See generally Tort Claims Against the United States, Subcommittee of the Senate Judiciary Committee, 76th Cong., 1st Sess. 39 (1940); 35 Am. Jur. 2d "Federal Tort Claims Act" § 46 (1967); Annot., "FTCA-Deceit," 30 A.L.R. Fed. 421 (1976); Annot., "FTCA-Exceptions," 6 L. Ed. 2d 1465 (1962).

[13]Id.

[14]Cenna v. United States, 402 F.2d 168 (3d Cir. 1968).

[15]There has been a particular reluctance to apply the misrepresentation exception to personal injury claims of medical malpractice or negligent flight information. United States v. Neustadt, 366 U.S. 696 (1961); Redmond v. United States, 518 F.2d 811 (7th Cir. 1975); Marival, Inc. v. Planes, Inc., 306 F. Supp. 855 (N.D. Ga. 1966).

[16]Ingham v. Eastern Airlines, Inc., 373 F.2d 227 (2d Cir. 1967), cert. denied, United States v. Ingham, 389 U.S. 931 (1967); United Air Lines, Inc. v. Wiener, 335 F.2d 379 (9th Cir. 1964), cert. dismissed, 379 U.S. 951 (1964);

[17]Ramirez v. United States, 567 F.2d 854 (9th Cir. 1977).

[18]For example, in medical malpractice cases an erroneous diagnosis communicated to the patient is simply a misrepresentation and falls within the exception to the waiver of immunity. If the physician were simply a diagnostic consultant and not responsible for the care of the patient, the government would not be liable for the misrepresentation. But if, as is more often the case, the diagnosing physician is also the treating physician, who is under an affirmative duty to give proper treatment, liability could be based on the negligent conduct of the physician in treating the patient. Scanwell Laboratories, Inc. v. Thomas, 521 F.2d 941 (D.C. Cir. 1975); Covington v. United States, 303 F. Supp. 1145 (N.D. Miss. 1969).

[19]In a case where the exception was found applicable, a grain importer unsuccessfully claimed that the government had negligently processed a request for amendments to its import permits and had failed to advise of a written policy prohibiting the types of imports which he planned to ship to the United States. Because of these alleged events, the claimant had its corn shipped to this country only to have it destroyed upon arrival. Cargill, Inc. v. United States, 426 F. Supp. 127 (D. Minn. 1976).

[20]One example of a taking is the situation in Kaiser Aetna v. United States, 44 U.S. 164 (1979), in which the Supreme Court determined under the facts of the case that the government could not, without paying compensation, force the petitioner to admit the public to a private lagoon which had been connected to a public bay. A second taking example is Pete v. United States, 531 F.2d 1018 (Ct. Cl. 1976), in which the government condemned all the land surrounding a lake and prohibited use of gasoline powered engines on the lake. The court concluded that the government's action constituted inverse condemnation compensable under the Fifth Amendment because it effectively destroyed the usefulness of three large houseboats permanently placed upon the lake. This was not a pure regulatory taking, though, because the regulatory restriction accompanied the physical taking of real estate. A third example is Hernandez v. City of Lafayette, 643 F.2d 1188 (5th Cir. 1981), in which the Court of Appeals remanded for trial a case where a city allegedly took property by refusing to rezone land because it was going to build a highway through the property and wanted to keep the depressed value of the land that the current zoning represented.

[20a]Sweet v. Rechel, 159 U.S. 380 (1895). See 58 Am. Jur. 2d "Nuisance" § 206 (1971); 35 Am. Jur. 2d "Food" § 65-66 (1967).

[21]South Terminal Corp. v. EPA, 504 F.2d 646, 678 (1st Cir. 1974) (transportation control plan which mandated a 40% reduction in available off-street parking spaces held not a taking).

[22]Id. at 679.

[23]Andrus v. Allard, 444 U.S. 51, 100 S. Ct. 318, 326 (1979) (substantial restriction on Indian artifacts containing feathers of protected birds not considered a taking because owner continued to be allowed to possess and transport property, to donate or devise the protected birds and could exhibit the artifacts for an admission price). The court in Andrus also stated:

> [T]he denial of one traditional property right does not always amount to a taking. At least where an owner possesses a full "bundle" of property rights, the destruction of one "strand" of the bundle is not a taking,

> because the aggregate must be viewed in its entirety. . . When we review regulation, a reduction in the value of property is not necessarily equated with a taking. . . At any rate, loss of future profits--unaccompanied by any physical property restriction--provides a slender reed upon which to rest a takings claim. Prediction of profitability is essentially a matter of reasoned speculation that courts are not especially competent to perform. Further, perhaps because of its very uncertainty, the interest in anticipated gains has traditionally been viewed as less compelling than other property-related interests.

Id. See Appendix A page A-9, A-10.

[24]F. Bosselman, D. Callies & J. Banta, The Taking Issue: An Analysis of the Constitutional Limits on Land Use Control (Gov't Printing Office, Washington, D.C. 1973).

[25]Mugler v. Kansas, 123 U.S. 623 (1887).

[26]The Court in Mugler stressed the fact that there was no physical invasion of property, ruling there was no taking since it was within the government's power to regulate property to eliminate a nuisance. The Court stated that:

> the destruction of property which is itself a public nuisance, or the prohibition of its use in a particular way, whereby its value becomes depreciated is very different from taking property for public use. . . . In the one case, a nuisance only is abated; in the other, unoffending property is taken away from an innocent owner.

Id. at 668-69.

[27]Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 413 (1922). The Court stated:

> One fact for consideration in determining such limits is the extent of the diminution. When it reaches a certain magnitude, in most if not in all cases there must be an exercise of eminent domain and compensation to sustain the act. So the question depends upon the particular facts. The greatest weight is given to the judgment of the legislature, but it always

> is open to interested parties to contend that the legislature has gone beyond its constitutional power.

[28]Kaiser Aetna v. United States, 444 U.S. 164 (1979); Andrus v. Allard, supra note 23; Penn Central Transportation Co. v. City of New York, 438 U.S. 104 (1978); Goldblatt v. Town of Hempstead, 369 U.S. 590 (1962). For a recent overview of the taking issue, see Note, "Reexamining the Supreme Court's View of the Taking Clause," 58 Tex. L. Rev. 1447 (1980). See also Kanner, "The Consequence of Taking Property by Regulation," 24 Prac. Law. 65 (1978). For an evaluation of various theoretical models for analyzing the taking question, see Berger, "A Policy Analysis of the Taking Problem," 49 N.Y.U.L. Rev. 165 (1974).

[29]Supra note 27.

[30]260 U.S. at 413.

[31]Id. at 413-14.

[32]United States v. Central Eureka Mining Co., 357 U.S. 155 (1958).

[33]Id. at 168.

[34]Supra note 23.

[35]Supra note 23.

[36]Agins v. City of Tiburon, 100 S. Ct. 2138 (1980). See also Goldblatt v. Town of Hempstead, 369 U.S. 590 (1960) (prohibition of excavation of sand and gravel below water table not a taking); Penn Central Transportation Co. v. City of New York, 438 U.S. 104 (1978) (denial of right to exploit air space by building office building above Grand Central Station not a taking).

[37]Sierra Club v. EPA, 540 F.2d 1114 (D.C. Cir. 1976). See also Chesapeak Bay Village, Inc. v. Costle, 502 F. Supp. 213 (D. Md. 1980) (no taking where plaintiff's plans to develop land into subdivisions jeopardized because of insufficient sewer facilities due to federal government giving insufficient grant for sewage treatment facility); and Creppel v. U.S. Army Corps of Engineers, 500 F. Supp. 1108 (E.D. La. 1980) (taking claim rejected in action to compel Corps of Engineers to authorize flood control project in accordance with original plans).

[38]Supra note 22.

[39]Chevron Chemical Co. v. Costle, 641 F.2d 104 (3d Cir. 1981), cert. denied, 101 S. Ct. 3110 (1981) (concerning §§ 3(c)(1)(D) and 10

of FIFRA). See also Mobay v. Costle, 517 F. Supp. 252 (W.D. Pa., No. CA 79-591D, June 12, 1981), which expressly followed the holding of the Chevron case; and Union Carbide Agricultural Products Co. v. Gorsch (S.D.N.Y., No. 76 Civ. 2913), in which a preliminary injunction issued by the district court was vacated on appeal by the Second Circuit.

[40]Hodel v. Virginia Surface Mining & Reclamation Ass'n, 452 U.S. 264, 101 S. Ct. 2352 (1981) (steep slopes provision did not prohibit surface mining, but only regulates conditions of performing mining operations). See also Hodel v. Indiana, 452 U.S. 314, 101 S. Ct. 2376 (1981) (same situation as Hodel above except challenge centered upon prime farmland requirement); Nance v. EPA, 645 F.2d 701 (9th Cir. 1981) (taking issue not ripe because not yet established that strip mining on Northern Cheyenne Tribe's reservation is subject to PSD nor that the land is suitable for strip mining). See also San Diego Gas & Electric Co. v. City of San Diego, 450 U.S. 621, 101 S. Ct. 1287 (1981) (Supreme Court found 5-4 in challenge to city's open space plan and rezoning that California state court decision was not final in that California court decided monetary damages were not appropriate but not if there was indeed a taking).

[41]United States v. Realty Co., 163 U.S. 427, 440 (1896). The Supreme Court has recently reaffirmed the authority of Congress to define and pay the debts of the United States, by appropriation or by waiving an otherwise valid defense to a claim against the government. Sioux Nation v. United States, 448 U.S. 371, 100 S. Ct. 2716 (1980). The right to petition the government for redress of grievances is also cited as authority.

[42]Those of the House are codified in the Rules of the Subcommittee on Administrative Law and Governmental Relations, House Committee on the Judiciary.

[43]Telephone conversation on March 26, 1982 with Bill Shattuck, Counsel to House Judiciary Committee, Subcommittee on Administrative Law and Governmental Relations. The Comptroller General may also recommend bills, though the authority is rarely used, 31 U.S.C. § 236.

[44]Note, "Private Bills in Congress," 79 Harv. L. Rev. 1684, 1689 (1966).

[45]If one member objects strongly to a bill, he can usually persuade one of his colleagues to object along with him. Thus, in practice a single objection can kill a private bill, according to Shattuck, supra note 43.

[46]In the 95th Congress 1,552 private bills were introduced, 283 passed. In the 96th Congress 1,334 were introduced, of which 181 passed. The 97th Congress is not yet over, but so far 962 private

bills have been introduced and 75 passed. The percent passing has dropped from 18%, to 13.5% to less than 8%.

[47]Id., Private Bills, supra note 44. For example, the CPSC testified in favor of relief for Marlin Toy Co.

[48]For example, although 67% of the private bills introduced in the 97th Congress concerned immigration, 85% of those passed were immigration bills. See also Private Bills, supra note 44 at 1693.

[49]Apparently only six vetoes of private bills have been overridden, none of them in the last-fifty years. Id. at 1693.

[50]Id. at 1701.

[51]Supra note 43.

[52]Act of Feb. 24, 1855, ch. 122, 10 Stat. 612.

[53]Cong. Globe, 37th Cong., 2d Sess., App. 2 (1862).

[54]Act of March 3, 1863, ch. 92 § 5, 12 Stat. 765, 766. Appeal is now available only on writ of certiorari.

[55]Repealed after the Supreme Court refused to review a judgment on the grounds that Congress's remaining power over the court's judgments was inconsistent with its exercise of judical power. Glidden v. Zdanok, 370 U.S. 530, 554 (1962).

[56]31 U.S.C. § 724a.

[57]28 U.S.C. § 1491. The district courts have been given concurrent jurisdication on these cases where the claim is less than $10,000. 29 U.S.C. § 1346(a)(2).

[58]However, the court of claims may hear appeals of FTCA cases from federal district courts with the consent of appellees. 28 U.S.C. § 1504.

[59]"Annual Report to Congress, January 25, 1982" by Office of the Clerk, Court of Claims.

[60]Glidden, supra note 55.

[61]In cases falling under general jurisdiction, trial commissioners hold hearings and make recommendations to the court. 28 U.S.C. § 792 (1925).

[62]Glidden, supra note 55.

[63]Glosser, "Congressional Reference Cases in the United States Court of Claims: A Historical and Current Perspective, 25 Am. U. L. Rev. 595 (1976).

[64]28 U.S.C. § 2509(c); 28 U.S.C. § 1492. Congressional reference cases are tried under rules which closely follow the regular rules of the court. 28 U.S.C. § 2509(b). For an explanation of procedure, see Glosser, supra note 63, at 605-17.

[65]For more detail on procedure, see Glosser, id.

[66]M.T. Bennett, "Private Claims and Congressional References," 9 A.F. Jag L. Rev. No. 6 (Nov.-Dec. 1967)

[67]Telephone conversations on March 26, 1982 with Linda Nucessian, Counsel to Subcommittee on Agency Administration, Senate Judiciary Committee and Frank T. Peartree, Clerk, U.S. Court of Claims.

[68]113 Ct. Cl. 658, 667 (1949). Though the language is clear, Burkhardt has caused confusion because the court found that the plaintiffs had more than a merely equitable or honorable obligation. The more expansive definition was not necessary to reach the holding.

[69]168 Ct. Claims 318, Cong. Ref. No. 11-58 (1964). In Drake America Corp. v. United States for example, the court found that a claim for additional compensation for a contract to develop a high-speed snow plow for the Air Force had neither a legal nor an equitable basis within the meaning of the statute. The record did not support the plaintiff's claim that it reasonably relied to its detriment on a promise that additional funds would be approved, and the court found that the plaintiff had been sufficiently compensated for the work performed.

[70]See, Innocent Victims of the Occupation of Wounded Knee, South Dakota v. United States, Cong. Ref. No. 4076 (June 10, 1981); Burt v. United States, 199 Ct. Cl. 897; Glosser, supra note 63 at 620-22.

[71]Cherokee Nation v. United States, 270 U.S. 476 (1926), discussed in Sioux Nation v. United States, supra note 41.

[72]Sioux Nation, id. at 397.

[73]Mizokami v. United States, 118 Ct. Cl. 736, 414 F.2d 1375 (1969).

[74]Pope v. United States, 323 U.S. 1 (1944) discussed in Sioux Nation, supra note 41, at 399.

[75]S. 823 discussed supra at page A-22.

[76]21 U.S.C. § 114(a), 134(d)

[77]"Indemnification Under Animal Disease Control Programs with Special Emphasis on Foot-and-Mouth Disease," Nasser A. Aulaqi and W.B. Sundquist, Department of Agricultural and Applied Economics, University of Minnesota, Economic Report ER 77-2, February 1977, at 4.

[78]Telephone conversation with Dr. M.J. Tillery, USDA Animal, Plant Health and Inspection Service.

[79]9 C.F.R. §§ 50-56.

[80]Id.

[81]See Julius Goldman's Egg City, 566 F.2d 1096 (1977).

[82]Estimate by Division of Veterinary Services USDA, contained in Background Draft by ICF, Inc. "Costs Associated with USDA Animal Disease Indemnification Programs" at 6.

[83]7 U.S.C. 450j.

[84]7 U.S.C. 135b.

[85]Although less harmful to humans, and less persistant in the environment, they are more damaging to bees.

[86]Figures from a telephone conversation with Gerald Schiermeyer, Agricultural Stabilization and Conservation Service, USDA.

[87]Telephone conversation on July 12, 1982 with Marcy Farden, legislative aid to Rep. Akaka.

[88]7 C.F.R. § 760.

[89]Gellhorn, "Adverse Publicity by Administrative Agencies," 86 Harv. L. Rev. 1380, 1408 (1973) (quoting from internal FDA memorandum).

[90]Each year an amount equal to 30 percent of the gross receipts from duties collected under the customs law the preceeding year is appropriated to the fund authorized by 7 U.S.C. § 612c. It is used to encourage agricultural exports, and domestic consumption, and to "reestablish farmer's purchasing power." The food stamp and school lunch programs are run under the authority of this section. Approximately $8.5 million was paid to 12 claimants representing 1,215 growers, based on a schedule of prices per barrel of cranberries.

[91]Gellhorn, supra note 89 at 1408-10. The enabling legislation of the Consumer Product Safety Commission requires notice to the parties similar announcements on product safety are made. 15 U.S.C. § 2055.

[92]Much of the following description is based on Mizokami v. U.S., 414 F.2d 1375, 188 Ct. Cl. 736 (1969).

[93]Priv. L. 88-346, 78 Stat. 1195 (1964).

[94]38 Fed. Reg. 29400, 29404 (1973).

[95]S. 3666, 120 Cong. Rec. 34000 (1974); H.R. 17652, 120 Cong. Rec. 41832-33 (1974).

[96]Cong. Ref. Nos. 2-74 & 1-75, (Dec. 19, 1978).

[97]15 U.S.C. 2054(h), P.L. 94-284.

> (h) Civil action against the United States
>
> Subsections (a) and (h) of section 2680 of title 28 do not prohibit the bringing of a civil action on a claim against the United States which --
>
> (1) is based upon --
>
> (A) misrepresentation or deceit before January 1, 1978, on the part of the Commission or any employee thereof, or
>
> (B) any exercise or performance, or failure to exercise or perform, a discretionary function on the part of the Commission or any employee thereof before January 1, 1978, which exercise, performance, or failure was grossly negligent; and
>
> (2) is not made with respect to any agency action (as defined in section 551(13) of title 5).
>
> In the case of a civil action on a claim based upon the exercise or performance of, or failure to exercise or perform, a discretionary function, no judgment may be entered against the United States unless the court in which such action was brought determines (based upon consideration of all the relevant circumstances, including the statutory responsibility of the Commission and the public interest in encouraging rather than inhibiting the exercise of discretion) that such exercise,

performance, or failure to exercise or perform was unreasonable.

(Emphasis added.)

[98]Conversation with Mana Jennings, Office of General Counsel, CPSC.

[99]FF 3-71, FF 5-74: The working paper, "Tris Ban" prepared for the Regulatory Impacts Branch, OTS by The Conservation Foundation notes only 40-50% of the garments sized 12 months to 6X used the flame retardant Tris to meet the standard. After Tris was banned, clothing manufacturers had to use a more expensive chemical flame retardant for a short time, but by 1978 they were meeting flammability standards by using inherently flame-retardant fabrics at costs comparable to Tris.

[100]Telephone conversation with Mana Jennings, Office of General Counsel, CPSC, March 1982.

[101]The requirement to repurchase banned hazardous substances is no longer automatic. 15 U.S.C. § 1261. The 1981 Authorization of CPSC added an informal adjudicatory hearing on which the Agency order to repurchase must be based.

[102]Supra note 100.

[103]Supra note 99, and S. Rep. 97-130, accompanying S. 823.

[104]S. 823 was passed by the Senate in June of 1981; the House Judiciary Subcommittee on Administrative Law held hearings on June 16, 1982.

[105]H.R. 4264, H.R. 4180, Cyclamates Compensation: Hearings Before Subcommittee No. 2 of the House Committee of Judiciary, 92d Cong., 1st Sess. 44 (1971).

[106]Although the legislation never passed, it raised issues that were deemed important enough to be considered by high level officials in a series of meetings and memos. A memorandum for the Honorable John C. Whitaker, The White House, on "Indemnification of Business Losses Arising from Federal Regulatory Activities, (March 15, 1971)" signed by Wilmot R. Hastings, General Counsel recounted some of this activity, and the positions of various participants, including John Dean, Richard Kleindiest and Jim Lynn.

[107]S. Res. 225 referred to the Court of Claims S. 1894 and S. Rpt. 95-576 on Nov. 28, 1977.

[108]Briefs are filed at Court of Claims. According to defendant's final brief, the proposed rule was published two months before the

Association had to make a decision on how to pack that year's crop. Apparently the Association discussed the situation with many people, including its bankers. One reason that it may have decided to go ahead and take the risk was that for the period just before the ban, 15% of the sales of the Association involved cyclamate-packed products, but they contributed 50% of the profits.

[109]42 U.S.C. § 247(b), P.L. 94-380.

[110]For one account of the political, profesaional, and economic stakes in the dispute over a swine flue vaccination program, see The Swine Flu Affair; Decision-Making on a Slippery Disease, Richard E. Neustadt and Harvey V. Fineberg, M.D. According to Neustadt the impetus for swift passage of the swine flu act (through both Houses and signed by Ford in two weeks) was a feared link to Legionnaire's Disease.

[111]Telephone conversation with Jeffrey Axelrod, DOJ.

[112]Id.

[113]20 U.S.C. 971, 89 Stat. 844 (1976).

[114]1975 U.S. Cong. and Admin. News 1640.

[115]Telephone conversation with Alice Martin, Indemnification Administrator for National Endowment for the Arts, February 1982.

[116]50 U.S.C. § 1431 and Executive Order 10789.

[117]59 Comp. Gen. 705 (Sept. 3, 1980).

[118]"Draft Report of the OFPP Interagency Task Force on Indemnification," (January 28, 1982).

[119]H.R. 1504; cf. Stencel v. United States, 431 U.S. 66 (1977).

[120]Memorandum from Paul Martin, Acting Director Procurement and Contracts Division to William Coleman, Indemnification Task Group, OFPP, September 8, 1981.

[121]Internal EPA Memorandum from Don Nantkes, OGC to Paul Martin, OTC, (June 28, 1981).

[122]Telephone conversation on May 26, 1982 with Pamela John, EPA, Procurement Contracts Management Division.

APPENDIX B

REGULATORY AND LEGISLATIVE ALTERNATIVES TO INDEMNIFICATION

I. INTRODUCTION

One important corollary to the general tendency against indemnification by the government is that there are numerous alternative mechanisms available to address many of the same losses, concerns, or problems, to which indemnification could be made to apply. While indemnification has rarely been provided in federal statutes and administrative programs, some of the available alternatives are quite common.

In this appendix, several major alternatives to indemnification are identified and defined. Part II of the appendix describes the operation of ten important alternatives that address the types of losses with which indemnification may be concerned. Part III examines how alternative mechanisms are presently used to remedy or prevent loss situations or to provide incentives under existing environmental programs. Part IV suggests a framework for choosing between indemnification and an alternative relief mechanism.

II. THE OPERATION OF ALTERNATIVES

EPA-sponsored indemnification theoretically may operate in two ways. Either payment of indemnification arises after the fact of loss resulting from a situation determined to be indemnifiable, or the offer of indemnification arises prior to any loss and operates as a pledge of compensation for harms resulting from defined indemnifiable situations. The former type of indemnification may be an ad hoc response to an unforeseen or unpredicted harm that is thought, in fairness, to require indemnification. It requires no advance authorization from Congress, but can be authorized entirely as a one-time response to particular circumstances.[1]

In contrast, any indemnification program that is established by statute or regulation is, by definition, of the second type. A program may approximate the first type of indemnification by providing only the most general description of indemnifiable situations or harms.[2] However, its more important effect may be to provide a pledge upon which specified parties may rely in encountering the indemnifiable situation. The pledge will affect those parties' conduct either explicitly and intentionally[3] or indirectly and diffusely.[4]

Alternatives to indemnification may also operate, in either of the two ways described above, to achieve some or all of the same results achievable through indemnification. The available alternative responses to a potential or actual loss situation may be loosely grouped into four categories, depending on whether they are aimed at:

- Eliminating the harms resulting from otherwise indemnifiable situations;
- Spreading or shifting such harms;
- Reducing the severity of such harms; or
- Improving the ability of affected parties to absorb harms generally.

A. Alternative Means of Eliminating Harms

1. Financial Assistance

Many environmental regulatory programs include some element of financial assistance for persons affected by them.[5] Such assistance may take the form of direct cash payments -- grants and subsidies, for example -- or they may be less direct forms of assistance, such as tax credits. Both direct and indirect financial assistance is given out to those who satisfy certain qualifying criteria.

Unlike some social welfare "entitlement" programs where aid is given to all who qualify, most financial assistance programs in the environmental field involve some further limitation beyond the minimum qualifying criteria. This may take the form of a rating system in which various applicants are rank-ordered,[6] or it may be no more than first-come-first-served rationing. In any form, such financial assistance is often subject to the exercise of a certain amount of administrative discretion in selecting recipients. This discretion may be structured by regulation in order to facilitate identification of likely recipients in advance of their applying for assistance.[7]

Federal financial assistance is nearly always accompanied by a variety of conditions to which the recipient must agree. Often these conditions limit, in minute detail, the disposition of the funds involved. Some of the conditions may have very little relationship to the main objective of the financial assistance itself, but may be included to foster other governmental policy goals.[8]

Clearly, indemnification is one form of financial assistance. However, in several important ways, indemnification differs from other forms of assistance. Indemmification is generally measured by the magnitude of the harm, while other forms of financial assistance may be measured by whatever reasonable formula has been adopted. Moreover, financial assistance awards typically place the government in the role of benefactor who may restrict or condition assistance as seems reasonable. Indemnification, however, differs from other financial assistance in that it places the government in the position of remedying harms that result from certain indemnifiable situations, and thus, when such situations arise, the government is unlikely to impose such restrictions.

2. Exceptions and Waivers

An exception is a statutory or regulatory provision that operates to restrict the general applicability of the language of the provision.[9] The effect of an exception is to excuse compliance with the general provision by those to whom the exception applies.[10] A waiver is an individual determination that a particular party should be excused from compliance.[11]

Both exceptions and waivers can be alternatives to indemnification because they can have the effect of eliminating the harms associated with application of a statutory or regulatory provision. In general, statutory or regulatory exceptions are provided when it is possible to define in advance the precise class of parties or situations to which a standard should not apply.[12] In such a case, an exception operates as an alternative to the second type of indemnification noted above, since it serves as a statement that the harms of regulation will not be imposed in certain defined "exceptional" circumstances.

When such a definition is not possible, and the determination of whether the standard should apply depends upon a balance of competing considerations, the waiver mechanism is appropriate. A waiver mechanism established by statute or regulation may specify, in general terms or in minute detail, the considerations to be balanced in granting or denying the waiver.[13] When waiver considerations are stated very generally, the waiver mechanism most closely approximates an alternative to the first type of indemnification noted above, since it can be an ad hoc response to an unforeseen harm caused by imposition of a regulatory standard.

The formal grant of a regulatory exception constitutes administrative rulemaking; the formal grant of a waiver constitutes adjudication. Both exceptions and waivers may also exist informally, however, in the exercise of administrative prosecutorial discretion. The practical effect of an administrative decision not to pursue a particular class of violators[14] or an individual violator is the same as if a formal exception or waiver had been granted.

Exceptions and waivers may be total, or they may involve the concept of tiering. Tiering is an administrative mechanism which allows the stringency of a regulation to vary in proportion to some other factors -- the degree of hazard, the impact on the regulated community, etc.[15] Thus, a provision may except one class of parties from one regulatory requirement, but subject it instead to a less stringent requirement.[16] Similarly, a waiver may excuse compliance with a particular standard provided that a lower standard is met.[17] Clearly, both exception and waiver mechanisms can be designed with as many or as few tiers as seems appropriate.

3. Facilitated Participation and Review

Under the Administrative Procedure Act, EPA rulemaking activities are generally subject to the requirement that affected parties be given, at a minimum, notice of proposed regulations and an opportunity to comment on them.[18] Similarly, affected parties are entitled to participate in agency adjudicatory decisions.[19] In a few circumstances, however, EPA may take limited actions without affording such participation, either because of the immediacy of the problem being addressed[20] or because the action constitutes neither rulemaking nor adjudication. When this occurs, the risk of producing undesired harms is, of course, increased since there is no mechanism for bringing the possibility of such harms to the attention of EPA before the action is taken.

One method of dealing with this increased risk is to provide for an expeditious hearing on the EPA action after it is taken, so that it can be rescinded or modified to avoid the harm, as appropriate, at an early date.[21] Even where a hearing has been held or notice and comment procedure has been followed, the same objective of expedi-

tious review, modification, rescission or confirmation may be desirable in minimizing or eliminating untoward consequences of EPA actions. In such circumstances, facilitated judical review may be appropriate.

Every final administrative action -- except for those committed to agency discretion by law -- is subject to judicial review.[22] Thus, judicial review is virtually always available as a mechanism for undoing or modifying certain actions in appropriate cases. In a few situations, Congress has chosen to facilitate judicial review of administrative action. This is often accomplished by designating a particular district or circuit court (such as those of the District of Columbia) as having exclusive jurisdiction over challenges to the agency's action, or by providing the direct judicial review is to occur at the Court of Appeals level.[23] Such expedited review is most often regarded as benefiting the affected administrative agency, either by avoiding a proliferation of judicial evaluations of its actions or by permitting the agency to have a quicker evaluation of its actions, less subject to reversal by a higher court. However, in a few circumstances, expedited judicial review may operate as a benefit to the party affected by EPA action, by accelerating the implementation of modifications to that action.

Both facilitated participation and expedited review serve as alternatives to indemnification when they operate to modify or terminate quickly a course of EPA regulatory action that is imposing harms on aggrieved parties. Like exceptions and waivers, these alternatives operate to eliminate such harms by removing the necessity of complying with the standard at issue. The value of facilitated participation and expedited review, therefore, is derived primarily when an EPA action is ultimately modified, rescinded or overturned.

B. Alternative Means of Spreading or Shifting Harms

1. Restoration Funds

A restoration fund is a sum of money set aside to pay compensation under specified circumstances. Moneys for the fund are normally collected by means of an "injury tax" or surcharge on a product or activity related to the purpose of the fund. Thus, for example, Superfund is a restoration fund financed (in part) from a tax imposed on crude oil received at a United States refinery, imported petroleum products, crude oil exports and uses,[24] and 42 specific chemical products.[25]

A restoration fund differs from indemnification, although both involve payments measured by certain defined harms, in that the amount of the fund is collected in advance in anticipation of the necessity of payouts. The fund is kept separate from other revenues and may continue to grow year after year until payouts are necessary.

Eligibility for compensation from the fund may be limited by the total amount available[26] at the time of the discovery of the loss, or it may be measured only by the indemnification formula established.[27] The levels of the injury tax may theoretically be made to vary in proportion to the fund's payout experience. In contrast, indemnification is normally financed from general revenues and its amount is measured only by the indemnification formula established.

Payments from a restoration fund are typically conditioned on a triggering event.[28] Such events must be statistically foreseeable, even if they are not actually predictable, and their probability may vary with an activity upon which the tax or surcharge can be levied.

The existence of a restoration fund in the first instance clearly obviates the need to provide indemnification, and thus serves as an alternative to indemnification. Restoration funds do not shift the costs of harms to EPA, however, as indemnification would, but rather distribute those costs among those contributing to the fund. Requiring payments into a restoration fund in anticipation of a triggering event such as might be the subject of indemnification thus forces industry members to share the risks involved in their enterprises. Restoration funds are therefore essentially mechanisms for spreading the risks of certain activities among all those engaged in the activity, rather than letting the untoward consequences of those activities fall on an unlucky few, or on the government agency providing indemnification.

2. Limitation of Liability

A limitation of liability is a statutory declaration that a party whose conduct or product causes harms will not be held accountable for all of those harms.[29] A limitation of liability is an alternative to indemnification when the harms being addressed would initially fall on a diffuse group of parties who, in the absence of such a limitation, would claim compensation from the responsible party who, in turn, would be in need of indemnification from the government. Like indemnification, a limitation of liability shifts the relevant risk away from the party engaged in the activity or producing the product creating the risk. Thus, like indemnification, a limitation of liability removes an economic impediment to a particular activity or product in order to stimulate those who would otherwise be willing to engage in the activity or develop the product.[30] However, unlike indemnification, the limitation of liability shifts that risk to those who initially suffer the harm,[31] rather than to a government body providing indemnification.

A limitation of liability may be a feasible alternative to indemnification when it operates to shift harms to a group who are readily able to absorb them, and to spread those harms among members of that group. Since this shift occurs without significant transac-

tion costs, it can prove to be a relatively trouble-free alternative. Indeed, a limitation of liability will nearly always be an alternative of lower cost than indemnification in situations to which it can be made to apply.

C. Alternative Means of Reducing the Severity of Harms

1. Postponement of Compliance Deadlines

A postponement of compliance deadlines occurs when compliance is excused for a period of time after a statutory or administrative regulatory action is taken.[32] Such postponements are quite common, and are usually conceived of as necessary in order to give notice to the affected parties that the regulatory action has occurred, and an opportunity for such parties to adjust their activities in response in an orderly fashion within a reasonable time.

Many regulatory actions are taken with a general postponement of their effective date accompanying them. Thus, for example, a regulatory standard may be promulgated with an effective date a specified length of time after its Federal Register publication.[33] Alternatively, the regulation itself may state that the affected activity must comport to the regulatory standard by a specific future date.[34]

In theory, if not often in practice, postponements may be made applicable to some classes of regulated parties, and not to others.[35] More common are policies, adopted either by regulation or otherwise, not to require compliance with a regulatory standard by all those against whom enforcement is regarded as not immediately appropriate, for example, because of their difficulty or expense in complying.[36] A formal grant of a postponement in such circumstances constitutes an administrative adjudication. However, a less formal postponement may be regarded as a mere exercise of prosecutorial discretion.

As a practical matter, postponements are also often bargained for in the course of prosecution and defense of enforcement actions.[37] Thus, even when a decision is made to prosecute such an action, the key objective of enforcement -- compliance with the standard -- may be achieved (and more quickly) by means of a settlement including a legally enforceable compliance deadline, rather than by protracted litigation.

Postponements may be regarded as alternatives to indemnification to the extent that they will reduce the severity of harms associated with a regulatory activity. In some circumstances, postponements merely delay those harms and arguably do not reduce their severity. However, where compliance is facilitated or made more orderly by a postponement, harms may be made less severe without the need for indemnification.

2. Forebearance with Publicity

There are a number of ways available to EPA to achieve some or all of its regulatory goals without actually engaging in rulemaking or adjudication.[38] One such way is to act merely to publicize the fact or action that might otherwise be the subject of regulatory concern.[39] Rather than to prohibit the action, or ban the product in question, EPA may simply inform merchants, retailers and the public of the possible environmental risks at issue.

Such an action would not constitute rulemaking, would not compel any particular response from the affected parties and would not be subject to judicial review. The affected party is left free to behave, in response to the publicity, in whatever manner it deems appropriate. By publicizing that behavior, however, EPA may stimulate market or other forces to induce proper behavior. In an appropriate case, the primary objective will be achieved in either event, but if EPA has done no more than publicize the party's activity, it will have done nothing that, in fairness, can be the basis for indemnification. Indeed, the total harm to the affected party will likely be less, since it will be left free to devise its own solution to the environmental problem at hand.

Foregoing regulatory action in favor of an alternative such as publicity operates as an alternative to indemnification in the sense that it reduces the adverse consequences of regulatory activity. This reduction may be achieved at some cost in the health or environmental benefit to the public, but it allows regulated parties to design their own response to the problem, in proportion to market incentives or threats of liability.

D. Alternative Means of Improving Ability to Absorb Harms

1. Education and Information Transfer

One important function of regulatory agencies, closely related to forebearance with publicity, is to educate those affected by their actions and to provide information to the regulated community and the public concerning the need for agency action, the risk being addressed, the rationale for the regulatory strategy followed and the means of complying with, or otherwise accommodating, the agency action.[40] Such education and information transfer serve as an alternative to indemnification by improving the ability of affected parties to absorb harms they have incurred.

Effective educational and information programs can reduce resistance to regulatory activity; produce a cooperative relationship between the agency and the regulated community; improve the quality of participation in a regulatory program by the regulated community and the public, and lower the overall costs imposed by regulatory action.

Thus, they can be an important alternative to indemnification. When the harms arising out of regulatory action can be reduced significantly through educational efforts by the agency (for example, on the lowest cost method of meeting a new regulatory standard), the need for indemnification is correspondingly reduced. If educational efforts can reduce the adverse impacts of EPA action to a level reasonably absorbed by affected parties, no indemnification will be required at all.

2. Resource and Technology Pooling

Resource and technology pooling consists of joint efforts among one or more federal agencies, other levels of government or private firms to share technological innovations, research and development, economic or other resources in order to reduce the costs associated with regulatory action and to foster innovation.[41] Resource pooling occurs when funds or capital resources are contributed to a single venture or activity addressed to a common regulatory impact. Technology pooling occurs when specific equipment or technology is shared with others who are engaged in parallel activity in response to regulatory action.

Resource and technology pooling can occur without any government involvement at all -- at least in those circumstances where antitrust laws do not interfere. However, there is much that the federal government can do to participate in such pooling or to encourage participation by others. For example, EPA might pursue a policy of liberalized licensure of patents held by the government for those participating in resource or technology pools. Similarly the Agency could tie other benefits to such participation.

Resource and technology pooling is obviously a means of improving the ability of affected parties to absorb the harms associated with regulatory activity, and thus can be regarded as an alternative to indemnification in this sense. When pooling results in lower individual costs being incurred in response to administrative action -- for example, when technology is shared to take advantage of economies of scale -- the desired objective is achieved without indemnification and resistance to the action may be reduced. This, for example, appears to be the purpose of the pooling of data and study results under TSCA.[42]

However, creation of a pool does not, by itself, always guarantee amelioration. For example, where administrative action is designed to force technology, a resource pool designed to undertake research and development may achieve the necessary breakthrough, but it may also fail.

3. Partial Financial Assistance

Financial assistance may provide something less than full cash payment to its recipient. Thus, once it is determined that a particular sum is required, that sum may be loaned, rather than paid, or an interest subsidy or repayment insurance[43] may be written to facilitate private funding, or a smaller amount may be paid.[44]

Although partial financial assistance is generally a mechanism for improving the ability of assisted parties to absorb the impact of regulatory activity, rather than to eliminate those harms as would full cash assistance, they are structurally otherwise identical.

III. LEGISLATIVE TREATMENT OF LOSS SITUATIONS

When the various statutes administered by EPA are examined in relation to the possible loss situations that can arise under them, the most striking conclusion is the consistency with which the various situations have been treated by Congress across the range of environmental legislation. A strong pattern emerges, reflecting a congressional routine -- whether it amounts to a congressional preference is unclear -- for avoiding or responding to these situations. With a few exceptions, congressional consistency appears to be far greater than one might have expected from a political forum.

Clearly Congress has often acted more to avoid loss situations than to create a remedy for them. Repeatedly, Congress has demonstrated its willingness to compromise primary statutory objectives rather than face the likelihood of creating loss situations requiring indemnification. This suggests a congressional willingness to assign even important legislative objectives relatively less weight than loss situation avoidance. To the extent that this desire can be translated into a congressional policy, the implication to be drawn is that indemnification ought not to be rejected in a particular case merely because a legislatively mandated program objective would be compromised by payment. Rather, congressional policy seems to be that the harms suggested in the indemnification situations are usually of greater concern than the objectives of the statutory scheme.

On the other hand, it is also clear that indemnification is not a favored response to loss situations. Rather, other measures are nearly always provided most of them designed to avoid the situations entirely. Thus, a second congressional policy to be derived from this analysis is that indemnification should be regarded as a strategy of last resort, to be pursued only when no acceptable alternative appears and compromise of the legislative objective is impossible.

A. Emergency Powers

This situation involves EPA emergency actions which prove to be ill-conceived but which are excluded from the Federal Tort Claims Act[45] because they arise out of the exercise of EPA discretion. Although, in emergency situations, EPA can make errors of judgment in promulgating regulations, formulating policy, or taking remedial action, Congress has never formally addressed such errors in its legislation.

Where EPA error is not the basis for indemnification, the exercise of emergency powers has given rise to the mandate for indemnification in only one instance. This mandate appears in § 15 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).[46] No other

suggestion appears in any other environmental statute, however, that the threat of emergency action should give rise to the need to provide indemnification.

B. Change of Regulatory Policy

A loss situation may occur whenever new information or understanding produces a change in EPA's regulatory program. Such a change may be most abrupt when EPA reverses a prior position generally approving or even positively sanctioning a particular product or activity. However, the loss situation may also arise after EPA acquiescence or complete nonaction with respect to a product or activity.

The usual response to the policy change situation is to grant a temporary variance from, or postpone the deadline for compliance with, the newly necessitated regulatory requirement.[47] In some instances, the effectiveness of any new requirement is explicitly delayed for a period of time. In others, its application to those who seem to have the greatest stake in the prior state of affairs is delayed.[48] In still others, elaborate safeguards are included before changes can be made -- thus eliminating the possibility of suddenness.[49]

These treatments of the policy change situation reflect congressional willingness, noted above, to compromise the primary objectives of EPA's programs, rather than to disrupt affected activities with policy or regulatory changes. This willingness may perhaps be explained by the realization that environmental regulation continues to be an inexact process, involving some measure of guess work as well as hard data and analysis. Where technical uncertainty is acknowledged, it is obviously most difficult to insist on regulatory action as if such uncertainty were eliminated. Rather, it may be justifiable to seek to minimize disruption when such uncertainty causes sudden changes in EPA's regulatory program.

On the other hand, detrimental reliance by an affected party on a regulatory policy or provision, which, when rescinded causes that party to and suffer a harm is often cited as an important regulatory relief concern. None of the environmental statutes explicitly deals with the detrimental reliance situation.

C. Tort Situations Potentially Not Covered Under the Federal Tort Claims Act: Delays and Ineffective EPA Action; Unreasonable Enforcement; and Disclosure of Confidential Business Information

These situations occur whenever EPA commits a tortious act that is not compensable under the Federal Tort Claims Act.[50] Although there are many conceivable tortious acts that EPA could conceivably commit, the three cited are most often mentioned.

The problem of unreasonable enforcement is considered, but only once, in the various enviornmental statutes. Section 113(b) of the Clean Air Act,[51] which deals with enforcement actions by the Administrator of EPA, authorizes the award of litigation costs to a party against whom an unreasonable action was brought. No obvious explanation appears for the existence of this particular provision, limited to air enforcement actions, when no similar provisions exist under other environmental statutes. In general, however, the Clean Air Act is the most complex of the environmental statutes and the one which underwent perhaps the most extensive revision after its initial enactment. Regulatory relief provisions are thus more common in the Clean Air Act than in the other environmental statutes, and this political and historical reason may account for the existence of this provision.

Other tortious EPA conduct is ignored throughout the various statutes.

D. Conflicting Requirements

This situation occurs when a federal environmental regulation or statute mandates or effectively compels conduct that is prohibited by another state or federal provision. It also occurs when a federal environmental provision prohibits an activity that is mandated or effectively compelled by another federal or state program.

The conflicting requirements situation rarely occurs in practice. There is an ample body of rules governing conflicts of law designed to assure that such situations will not arise.[52] Nevertheless, various state and federal enactments do have differing (and arguably conflicting) objectives, and these conflicts do need to be resolved.

The various envionmental statutes contain many provisions for avoiding the conflicting requirements situation but not for remedying it. These avoidance mechanisms consist of either (1) rules for assigning primary responsibility to one regulatory regime when a conflict appears;[53] and (2) requirements that regulatory actions be coordinated.[54]

E. The Incentive Situation

This situation occurs when EPA wishes to provide an incentive for an activity or conduct involving risk, which the party to whom the incentive is provided would not undertake because of that risk. The situation seems most likely to arise where a new technology is desired to be encouraged, but any desired activity involving risk may give rise to this situation.

The "classic" example of this situation is represented by § 202(a)(3) of the Clean Water Act.[55] That section provides for

indemnification for the cost of constructing innovative and alternative wastewater treatment facilities that later fail to perform as expected. Clearly this section is designed to encourage investment in such facilities by reducing the fear of failing to meet performance specifications.

The environmental statutes are replete with provisions designed to encourage particular types of conduct. Few, however, provide that incentive by means of risk absorption, despite the high degree of technical uncertainty in environmental regulation and the various technology forcing policies reflected in the statutes.

Section 1441 of the Safe Drinking Water Act,[56] offers an example of an incentive situation. In an earlier paragraph of that section, Congress provided for a certification of need to be issued to any person who uses chlorine or other chemicals for treating public water supplies and who determines that the amount of such chemicals reasonably available to him will be inadequate to treat that water effectively. When the certification is issued, it is accompanied by an order to an appropriate manufacturer, producer or processor, directing sale of the needed chemicals to the certified treatment facility.

Paragraph (d) then provides:

> There shall be available as a defense to any action brought for breach of contract in a Federal or State court arising out of delay or failure to provide, sell or offer for sale or exchange a chemical or substance subject to an order issued pursuant to subsection (c)(1), that such delay or failure was caused solely by compliance with such order.

Thus, this section authorizes EPA to eliminate one of the risks of drinking water treatment -- loss of chemical supplies -- by a certification procedure designed to guarantee the supply. In this situation, the desire to guarantee a continuous flow of safe drinking water makes indemnification an unsuitable device for risk absorption, and supply guarantees a preferred strategy.

IV. A FRAMEWORK FOR CHOOSING BETWEEN INDEMNIFICATION AND ALTERNATIVE RELIEF MECHANISM

The choice between indemnification and an alternative relief mechanism depends largely on the circumstances of the particular loss situation involved or the nature of the incentive desired. For any particular situation defined, the choice depends on the answer to two questions

- Will an Alternative Produce a Remedial Result Comparable to Indemnification?
- How will Use of the Alternative Affect Program Objectives?

Table I illustrates how the answers to these two questions assists in the selection between indemnification and an alternative.

WILL AN ALTERNATIVE PRODUCE A REMEDIAL RESULT COMPARABLE TO INDEMNIFICATION?

		Yes At Least at Effective as Indemnification	Not as Effective as Indemnification		
			Enough to Obviate Need for Indemnification	Enough to Narrow Range of Indemnification Situation	Indemnification Still Needed
How will use of an alternative affect program objectives?	Beneficial	A	B	C	E
	No or Neutral Effect	A	B	C	E
	Adverse Effect No Worse Than Indemnification	A	B	C	E
	Adverse Effect Not Unacceptably Worse Than Indemnification	A	B	D	E
	Adverse Effect Unacceptably Worse Than Indemnification	B	E	E	E

A = reject indemnification; choose alternative (threshold analysis)
B = consider alternative as factor in deciding whether to indemnify (balancing analysis)
C = choose alternative; redefine indemnification situation more narrowly; repeat Step 1 (iterative analysis)
D = consider whether to choose alternative and redefine indemnification situation more narrowly; repeat Step 1 (balancing and iterative analysis)
E = reject alternative; other factors determine whether to indemnify

FOOTNOTES TO APPENDIX B

[1]If passed, the Tris Indemnification Bill, S. 823 (97th Cong., 1st Sess.) would be an example of post-hoc authorization of indemnification. See "Payments of Losses incurred as a Result of the Ban on the Use of the Chemical Tris," Report of the Committee on the Judiciary, U.S. Senate, 97th Cong., 1st Sess. (1981).

[2]Section 113(b) of the Clean Air Act, 42 U.S.C. § 7413, is arguably the least specific of the existing indemnification provisions in environmental statutes. While it defines indemnifiable harms with some precision ("costs of litigation"), its definition of the indemnifiable situation ("unreasonable" enforcement action) is fairly open to interpretation.

[3]Section 202(a)(3) of the Clean Water Act, 33 U.S.C. § 1282(a)(3), offers such an explicit and intentional incentive for constructing innovative and alternative wastewater treatment facilities.

[4]It has been suggested, for example, that § 15 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. § 126m, provides an indirect incentive for pesticide manufacturers not to engage in certain research and development activities, but rather to rely on the pesticide registration process, because indemnification will be available if EPA determines that marketing and use of the pesticide must end before stocks are depleted.

[5]The Construction Grants Program under the Clean Water Act, 33 U.S.C. §§ 1281-1297, for example, is generally regarded as a means of overcoming the burden imposed on local governments by the Act's requirement of secondary treatment of municipal effluent. 33 U.S.C. § 1311(b)(1)(B).

[6]Construction grant funds, for example are allocated according to a formula set forth in 33 U.S.C. § 1285. As described by one observer:

> This program provides grants to states based on (a) severity of problems, (b) existing population affected, and (c) need for preservation of high quality waters. . . .During FY 1976 $4.9 billion were obligated for this program. The data elements used in this program are state population estimates for July 1975, published by the Bureau of the Census, and various components of need determined by a survey to estimate cost of construction of publicly owned wastewater facilities. In determining these needs, the projected population for 1990, prepared by the Bureau of

> Economic Analysis (BEA) and based on Census Series I-E, is compared with the population for July 1975. This program includes both a House formula and a Senate formula. The House formula is additive with three components: (a) a needs factor that includes costs for secondary treatment plants, weighted double . . . ; (b) a needs factor that includes rehabilitation of sewers and control of sewer overflow . . . ; (c) and state population for July 1975. Each factor is a ratio of the state estimate to the sum for all states. The Senate formula chooses the larger of the state population ration and the ratio of a third set of needs estimates for the state. . . .These initial entitlement estimates are prorated so that they sum to 100 percent. The next step is to check that the Senate percentage for each state is at least .5 percent. This process is repeated until the sum of the state percentages based on the Senate formula equals 100 percent. After both the House and Senate formulas have been computed, the compromise state entitlement percentage is obtained by weighting the two estimates equally.

Gonzalez, "Characteristics of Formulas and Data Used in the Allocation of Federal Funds, 34 American Statistician 200, 207-08 (1980).

[7]See Gilhooley, "Standards and Procedures for the Discretionary Distribution of Federal Assistance," in Administrative Conference of the United States, 3 Recommendations and Reports 422 (1974).

[8]Some of these are enumerated in Cappalli, "Mandates Attached to Federal Grants: Sweet and Sour Federalism," 13 Urban Law. 143 (1981).

[9]Jensen v. Garrison, 241 F. Supp. 523 (D. Ore. 1965); Sands, Sutherland's Statutory Construction § 47.11.

[10]Many statutory provisions except activities from regulation when it would be nonsensical to compel compliance. For example, the Noise Control Act prohibits removal of noise abatement devices from products, 42 U.S.C. § 4909(a)(2), but excepts from the prohibition the removal of such devices for repair purposes. Id. Other exceptions appear when the cost of compliance appears not to be justified in light of the expense. TSCA's exception from requirements to submit reports and data that EPA already has is an example. 15 U.S.C. § 2607(a)(2).

[11]See, e.g., 33 U.S.C. § 1342(e), authorizing a waiver of the requirement that states notify EPA of every permit application

received under the National Pollution Discharge Elimination System (NPDES) and of every action related to the consideration of such permits.

[12]Thus, for example, the Clean Air Act exempts certain non-profit health or education facilities from "prevention of significant deterioration" (PSD) review. 42 U.S.C. § 7479(1).

[13]See, e.g., the Clean Air Act's provision for waiver of the continuous emissions reduction technology requirement for primary non-ferrous smelters where the requirement is found to be likely to cause a cessation of operations. 42 U.S.C. § 7419(d)(2).

[14]An example of such a decision occurred when EPA announced that it would not enforce the 1980 annual report requirement for hazardous waste generators and owners and operators of hazardous waste treatment and disposal facilities. 46 Fed. Reg. 8395 (January 26, 1981). The requirement has since been suspended.

[15]A key criticism of EPA's regulatory program under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 et seq., for example, has been its failure to incorporate tiered exemptions based on the degree of hazard of each particular waste. Compare Cal. Health & Safety Code § 25115 (defining "extremely hazardous waste"). See Chemical Manufacturers Association, A System for Management of Hazardous Wastes by Degree of Hazard under Subtitle C of RCRA (updated).

[16]RCRA, for example, excludes from solid waste regulation those discharges that are already regulated under the arguably less stringent Clean Water Act. 42 U.S.C. § 6903(27).

[17]For example, § 301(c) of the Clean Water Act, 33 U.S.C. § 1311(c) authorizes EPA to excuse point sources from meeting effluent limitations based on "best available technology economically achievable" (BAT) if they achieve "maximum use of technology within the economic capability of the owner or operator."

[18]5 U.S.C. § 553.

[19]5 U.S.C. § 554.

[20]The Toxic Substances Control Act (TSCA), for example, permits certain types of rules to be effective immediately upon their proposal. 15 U.S.C. § 2605.

[21]In the TSCA provision noted supra note 20, for example, such an expeditious hearing is provided. 15 U.S.C. § 2065(d).

[22]5 U.S.C. §§ 551, 702.

[23]TSCA, for example, provides for judicial review of most regulations issued under the Act in the District of Columbia Circuit Court of Appeals. 15 U.S.C § 2618(a).

Judicial review may, as a practical matter, be facilitated in other ways as well. For example, an agency can facilitate review of a praticular activity by designating it as final agency action and thus removing any question of its ripeness for review. Another example occurs when an agency's governing statute sets a review standard for agency action that is more precise or better defined than the "arbitrary and capricious" and "substantial evidence" standards of the APA.

[24]Internal Revenue Code, 26 U.S.C. § 4611.

[25]Internal Revenue Code, 26 U.S.C. § 4661.

[26]Under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Hazardous response Trust Fund is to be funded from the tax revenues noted supra notes 24, 25, as well as by direct appropriations of $44 million per year. 42 U.S.C. § 9631(b)(2).

[27]See, e.g., 42 U.S.C. § 9631(c)(2).

[28]Cf. 42 U.S.C. § 9631(c)(1).

[29]See, e.g., 42 U.S.C. § 9611(a).

[30]A limitation of liability provision appears in § 141(d) of the Safe Drinking Water Act, 42 U.S.C § 300j(d), but this provision was allowed to expire on September 30, 1979.

[31]In Duke Power Co. v. Carolina Environmental Study Group, Inc., 438 U.S. 59 (1978), the U.S. Supreme Court characterized liability limitation as "a classic example of an economic regulation--a legislative effort to structure and accommodate 'the burdens and benefits of economic life.'" 438 U.S. at 83, quoting Usery v. Turner Elkhorn Mining Co., 428 U.S. 1, 15 (1976).

[32]Forcing such parties to absorb such harms, however, is unlikely to amount to a sufficient ground for declaring the limitation of liability unconstitutional. See id., Duke Power Co.

[33]Sands, supra note 9, at § 20.24.

[34]See, e.g., the Noise Control Act's provisions postponing compliance with product noice emission standards until six months after proposed standards are published in order to facilitate orderly design modifications. 42 U.S.C. § 4905(b).

[35]The Clean Water Act's effluent limitation provisions, 33 U.S.C. § 1311, for example, specify a timetable for achieving best practicable control technology (BPT), generally by July 1, 1977, and best conventional pollutant control technology (BCT) generally by July 1, 1984. 33 U.S.C. §§ 1311(b)(1)(A), 1311(b)(2)(E).

[36]See, e.g., 42 U.S.C. § 7419, which authorizes primary nonferrous smelter orders postponing application of State Implementation Plan (SIP) requirements to such smelters if they are unable to comply by the applicable date because no means of emission limitation is available.

[37]Compare § 301(c) of the Clean Water Act, 33 U.S.C. § 1311(c), with § 119 of the Clean Air Act, 42 U.S.C. § 7419.

[38]See, e.g., United States v. Homestake Mining Co., 26 Fed. Rules Serv. 2d 194 (D.S.D. 1978); 33 U.S.C. § 1319(a)(5)(B).

[39]The existence of formats of agency action other than rulemaking and adjudication was recognized by the U.S. Supreme Court in I.T.T. Corp. v. Electrical Workers Local 134, 419 U.S. 600 (1975). In that case a labor union appealed an order of the National Labor Relations Board based on a finding that the union had committed an unfair labor practice. The appeal cited an alleged violation of § 5 of the APA, 5 U.S.C. § 554, and argued that under the section it was improper for the same individual to act first as a hearing officer at the hearing concerning the charges held pursuant to § 10(k) of the National Labor Relations Act, 29 U.S.C. § 10(k), and then later to prosecute the unfair labor practice charge.

The Court held that the § 10(k) determination was only a preliminary administrative determination to resolve a dispute, and therefore was not within the scope of § 5:

> If one were to start with the proposition that all administrative action falls into one of two categories, rulemaking or adjudication, the Section 10(k) determination certainly is closer to the latter than to the former. But such light as we have on the intention of Congress when it enacted the Act does not indicate that this is a sound starting point. Knowledgeable authorities in this field observed shortly after the passage of the Act that "certain types of agency action are neither rulemaking nor adjudication." Ginane, "Rule Making" "Adjudication" and "Exemptions Under the Administrative Procedure Act, 95 U. Pa. L.Rev. 621 633, (1947); Netterville, The Administrative Procedure Act: A Study in

Interpretation, 20 Geo. Wash. L. Rev. 1, 33 (1951); Cf. Attorney General's Manual on the Administrative Procedure Act 40 (1947). . . ."

The Ginane article cites, as an example of the point made, the investigation of aircraft accidents by the Civil Aeronautics Board. Such an investigation results in findings as to the accident's cause and also in recommendations for operational changes, if necessary. It does not result in the issuance of an order (adjuciation), or of an agency statement proscribing further conduct (rulemaking).

[40]See, e.g., National Ornament & Electric Light Christmas Ass'n v. CPSC, 526 F.2d 1368 (1975). Professor Ernest Gellhorn in "Adverse Publicity by Administrative Agencies," 86 Harv. L. Rev. 1380 (1973) (based upon report prepared for the Administrative Conference of the United States), examines the lack of standards for issuing such publicity and proposes reforms intended to better control the use of adverse publicity.

[41]The various environmental statutes are replete with provisions of this type. See, e.g., the Noise Control Act, 42 U.S.C. § 4904(b), requiring publication of reports on major sources of noise and on techniques for noise control, in order to facilitate compliance with noise emission standards.

[42]See, e.g., JRB Associates, Inc., Checklist Papers of Alternatives and Supplements to Direct Regulation for Environmental Protection, 26-1 (EPA Contract No. 68.01.4991)(1980).

[43]15 U.S.C. § 2604(b)(2)(B).

[44]See, e.g., 33 U.S.C. § 1293, providing loan guarantees for POTWs where credit is otherwise unavailable.

[45]See, e.g., 33 U.S.C. § 1282(a)(1), providing for EPA to assume a portion of the cost of construction of POTWs.

[46]28 U.S.C. § 2680(a) [FTCA discretionary function exception].

[47]7 U.S.C. § 136m.

[48]See, e.g., Clean Air Act, 42 U.S.C. §§ 7413(d)(8) (delaying termination of postponement orders to avoid undue hardship); 7419 (e) (delaying termination of primary nonferrous smelter orders until no undue hardship would result).

[49]See, e.g., Clean Water Act, 42 U.S.C. §§ 1316(d) (protecting complying point sources from new performance standards for ten years); 1326(c) (providing similar protection from thermal discharge limitations).

[50]See, e.g., FIFRA, 7 U.S.C. § 136d. Other provided responses include:

(a) TSCA

15 U.S.C. § 2605(d):	expeditious hearing on immediately effective proposed rules.

(b) Clean Air Act

42 U.S.C. § 7525(b):	expedited judicial review of suspension or revocation of motor vehicle emission certifications.
42 U.S.C. § 7525(g):	nonconformance penalty option in lieu of suspension or revocation of heavy duty vehicle emission certification.

[51]The exceptions to the FTCA waiver of sovereign immunity are contained in 28 U.S.C. § 2680.

[52]42 U.S.C. § 7413.

[53]See generally Sands, Sutherland's Statutory Construction.

[54]For example:

(a) TSCA

15 U.S.C. § 2602(b):	excludes from TSCA those substances regulated under FIFRA, the Atomic Energy Act, FDA and other statutes.
15 U.S.C. § 2608(a):	assigns primacy to all statutes not administered by EPA.
15 U.S.C. § 2617:	preemption of state law.

(b) Safe Drinking Water Act

33 U.S.C. § 300q-3:	authorizes state regulation of safe drinking water.

(c) Clean Water Act

33 U.S.C. § 1370:	authorizes state clean water regulations.

(d) Noise Control Act

42 U.S.C. § 4905(c): requires consideration of other federal regulatory standards before promulgation of products standards.

(e) RCRA

42 U.S.C. § 6905(b): provides for integration with other environmental statutes.

42 U.S.C. § 6963: requires all federal agencies to cooperate with EPA.

(f) Clean Air Act

42 U.S.C. § 7402: encourages cooperative state activities and uniform laws.

5633 U.S.C. § 1282(a)(e).

APPENDIX C

CONSULTATION WITH INDUSTRY

I. INTRODUCTION

During the final phase of the study, representatives of industry were contacted to obtain more information relating to specific circumstances warranting indemnification and the general reaction of industry to the indemnification option.

In order to reach persons who might be familiar with EPA regulatory problems on an industry-wide basis, trade associations were the primary target for consultation. Over 30 trade associations representing industries likely to have environmental concerns were contacted; in most cases, telephone discussions with several people within each association were conducted.

Many persons contacted were unfamiliar with the concept of indemnification. Frequently, persons requested a written description of the study and of information that might be provided. In response to this type of request, nine letters were sent to trade associations (see attachment). Most persons who requested that letter be sent to them indicated their intention to distribute copies of the letter among trade association members or to circulate the letter among the professional staff. Therefore, it is likely that a much larger, but indeterminate, number of persons are aware of the study and our request for industry information.

Frequently, trade association representatives referred us to specific individuals within corporations who might be helpful to us or have special experience or insight. Follow-up interviews of these corporate representatives were conducted.

II. INDUSTRY CONTACTS

Alcoa
The Aluminum Association
Amax
American Consulting Engineers Council
American Insurance Association
American Iron and Steel Institute
American Mining Congress
American Paper Institute
American Petroleum Institute
Atlantic Richfield
Battery Council International
Business Roundtable
California League of Food Processors
Chemical Manufacturers Association
Chemical Specialties Manufacturers Association
Chevron
Commercial Union Insurance
Consolidated Coal
Dow Chemical Company
E.I. dePont de Nemours & Co.
Edison Electric Institute
Electrical Power Research Institute
Exxon Monsanto
Food and Drug Law Institute
Formaldihyde Institute
Motor Vehicles Manufacturers Association
National Solid Waste Management Association
National Agricultural Chemicals Association
National Association of Manufacturers
National Federation of Independent Business
National Food Processors Association
National Forest Products Association
National Insulation Certification Institute
National Small Business Association
NCASI--National Council of the Paper Industry for Air and Stream Improvement
Pharmaceuticals Manufacturers Association
Procter and Gamble
J.R. Sinplot
Shell Oil
Smith Kline Corporation
U.S. Chamber of Commerce
U.S. Steel
Water Pollution Control Federation

III. EXAMPLE LETTER

Dear _____:

I appreciate the interest in our study on indemnification that you expressed earlier today. In response to your request for more information, The Research Group is currently participating in a study of the feasibility and desirability of indemnifying affected industries for significant compensable losses caused by EPA actions. Indemnification may also be appropriate as an incentive for industries to protect or enhance the environment or as a means of ensuring that EPA will consider the economic impact of regulatory acts. This study will ultimately be presented by EPA to Congress as mandated by § 25(a) of the Toxic Substances Control Act.

We are reviewing all EPA programs including air, water, pesticides, waste disposal, and toxic substances to identify those EPA programs to which Congress might apply an indemnification scheme. The study includes an analysis of all environmental statutes, together with their legislative history, implementation, and the potential economic impact of government indemnification. We are conducting interviews with Agency personnel, persons involved in the legislative process, and public interest representatives to obtain relevant information. In order to present a well-balanced study, we are also seeking information and opinions from industry.

To date, indemnification has not been favored by Congress as a general regulatory relief or remedial mechanism. Its use has been confined to narrow circumstances under the Federal Insecticide, Fungicide and Rodenticide Act, as amended; agricultural indemnities to farmers for losses due to diseased livestock, contaminated milk, etc.; the Consumer Product Safety Act; and several occasions warranting a special Congressional indemnification bill. It is most often proposed as a viable regulatory mechanism in situations where an Agency has committed (or may commit) a mistake which causes substantial losses to a regulated party. It has also been suggested that indemnification may be appropriate where the Agency merely exercises bad judgment or later reverses a policy decision creating losses within a given segment of industry which relied on the original policy decision. Apart from a "fault" base rational, it has also been argued that indemnification may provide a mechanism for ensuring rapid, cooperative response in circumstances warranting emergency actions and thus assist in accomplishing an important goal of a statute. It might also serve as a disincentive to Agency use of certain extraordinary relief mechanisms, except in cases where alternatives are insufficient.

Mr. XXXXXXXXXX
Date
Page Two

In order to present a thorough and fully informed report to Congress on this issue, it is very important that representatives of industry, such as the Chemical Manufacturers Association, consider the potential impact of an indemnification program for regulated parties and provide us your opinion and any other relevant information that would assist us in our consideration of the issue. If your organization or its members support the concept of indemnifying regulated parties in certain situations, we would like to document or discuss specific factual events or circumstances in which compensation would have been desirable, either as a matter of fairness or to obtain the appropriate regulatory or legislative results.

We will be pleased to discuss the TSCA § 25(a) study or answer questions you may have regarding situations possibly warranting indemnification. Please contact me at (804) 977-5690. We ask that you respond to us, at least informally, by February 17, 1982. If you would like to submit a formal or written response, please let us know so that a workable deadline may be established that will ensure full consideration of your views in the draft report to be submitted to EPA.

Thank you very much for your interest and cooperation. We look forward to hearing from you.

Sincerely,

APPENDIX D

INDEMNIFICATION FINANCING SYSTEMS

I. INTRODUCTION

Government programs can be financed in a number of ways. This appendix provides a brief overview of financing alternatives most pertinent to indemnification programs. It also provides guidelines for appropriately matching a financing system to a particular indemnification program. A wealth of literature exists on the use of tax credits, interest subsidies, and similar devices for use as incentives. As much of the literature discusses the relative advantage of one devise over another in specific circumstances, it would be helpful in designing the financing for a particular indemnification program. This appendix is not intended as a review of all of this information, but as an introduction to the possibilities and their implications for indemnification.[1]

II. FINANCING SYSTEM OPTIONS

Financing systems have two basic components:

- Benefit distribution component -- mechanism by which economic benefits are transferred to firms which suffer eligible losses.
- Funding component -- mechanism by which the economic resources to be transferred to eligible firms are collected.

There are four basic options for distribution of benefits:

- Cash payments -- direct payments to eligible parties.
- Assumption of liability -- transfer of responsibility for a potential liability to the government.
- Tax assistance -- selected tax relief for eligible firms.
- Credit assitance -- reduced cost of borrowing or access to otherwise unattainable loans.

There are also four basic options for funding programs:

- Appropriations by Congress from general tax revenues -- either regular or special appropriations.
- Appropriations by Congress from dedicated or "ear-marked" revenue sources.
- Revolving fund account -- budget initially may be provided by general tax revenues or ear-marked tax receipts but fund is perpetuated by repayments (e.g., of loans) or recoveries of expended funds.
- Tax expenditures -- reduced tax revenues resulting from a special deduction, credit, deferral, or other special tax concession.

Each of the benefit distribution and funding options has variations, resulting in many possible alternative structures for a financing system. For purposes of providing an overview of the range of alternatives, we discuss the following systems:

- Cash payments from regular appropriations.

- Cash payments from special appropriations after the indemnifiable event.
- Cash payments from dedicated tax revenues.
- Cash payments from a revolving fund.
- Direct assumption of liability.
- Special tax credit resulting in reduced tax revenues.

A. Cash Payments From Regular Appropriations

Under this alternative, indemnified parties would receive government checks in the amount for which they are eligible. These payments would be funded by appropriations from general tax revenues. The appropriations could have many different combinations of features with respect to: limits on the amount of funds available, the agency's authority (or lack thereof) to carry over the unobligated funds from one year into the next, and the timing of the agency's requirements to request new budget authority.

An example of a regularly funded indemnification program is USDA's payment of compensation for contamination of milk, milk products or dairy cattle by pesticides that were registered under FIFRA at the time of their use.[2] The compensation awards are paid by U.S. Government checks, drawn on a USDA general fund expenditure account. In making its regular budget request each fiscal year, USDA includes an amount to cover expected payouts plus a margin for unexpected claims. At the end of each fiscal year, unobligated funds for this account are returned to the Treasury.

This alternative can be relatively efficient in handling frequent and predictable compensation claims. Although this alternative is flexibile in the amounts of funding it can handle, the expected requirements should be large enough and frequent enough to justify the permanent staff. Failure to provide adequate funding for expected requirements will tend to disrupt normal agency operations (i.e., by forcing normal operating budgets to be diverted to cover indemnification claims) or to undermine the incentive effects of the program since actual payment of claims cannot be assured.

Another example of this alternative is the Court of Claims Judgment Fund which is entirely financed by appropriations from general revenue. It is replenished from time to time in bulk and funding decisions seem unrelated to individual claims drawn from it. Many different kinds of claims are paid from this fund after decision by the Court of Claims. The Mizokami Brothers were paid from it for their losses associated with an erroneous FDA determination that their spinach was contaminated.

B. Cash Payments From Special Appropriations After The Indemnifiable Event

This alternative differs from the previous alternative in that the funding is requested after an indemnifiable event occurs. By not seeking funding until after the event, there is less certainty that payment will be made but more certainty about the amount needed. Therefore, this alternative may be less effective than the previous alternative in motivating private parties or government agencies. However, the certainty may be increased by statutory guarantees or administrative pre-arrangements.

An example of special appropriations is the Art and Artifacts Indemnification Program,[3] administered by the National Endowment for the Arts (NEA). Under this program, the NEA is authorized to enter into agreements with museums and other institutions to indemnify these parties for loss or damage to works of art, rare manuscripts, and other specified artifacts while on exhibition in the United States or overseas. Any party that desires to receive coverage for a particular exhibition must apply to the NEA. Upon approval of the application, the NEA and the party wishing to be covered enter into a formal indemnity agreement, specifying the amount of coverage to be provided, subject to certain statutory limitations. No premiums are paid to the NEA for this coverage. In the event of an eligible loss, the NEA would certify its investigation of the loss to Congress under a statutory arrangement. Congress would then appropriate money for compensation. Although appropriations are not made until after the loss, the certainty of receiving them is high because the statute allows NEA to pledge the full faith and credit of the United States.

For programs where claims will occur on a non-routine and infrequent basis and where the amounts of claims are unpredictable, "after-the-fact" special appropriations usually will be more appropriate. Backed by statutory authority to ensure eventual payment, this approach provides crediblity to the program while avoiding unnecessary budgeting of funds.

C. Cash Payments From Dedicated Tax Revenues

This alternative differs from the previous two in that revenues come from dedicated sources such as special taxes or fees assessed on a designated class of individuals (i.e., the users of a certain product) or companies or a designated product (i.e., certain chemicals). The revenues could be generated either continuously to meet routine and predicted requirements or periodically to meet non-routine and infrequent needs or to replenish the fund from previous payouts.

The exact relationship between the use of the funds and the individuals, firms or products on which the taxes are assessed can

vary and can be designed in such a way as to create a variety of incentives or disincentives on the part of the taxed parties or the users of affected products.

In the case of Superfund, most of the fund comes from taxes on certain chemicals that are either directly or indirectly (as chemical building blocks) most frequently associated with hazardous chemicals that come into contact with the environment. The primary objective of this approach to funding was to create an incentive for companies that generate these chemicals to exercise greater care in managing them so as to avoid spills or other releases into the environment.

A secondary objective was to free the fund to some extent from the requirement to have new funds appropriated from Congress each year. However, to prevent the loss of congressional control a portion of the fund still comes from general revenues and the entire fund still is subject to appropriations acts.

To establish this financing system, several issues have to be decided. The first is whether the assessments of firms, individuals or products will be a regular, ongoing activity, almost like an insurance program, or will occur only after eligible losses. Other issues are the definition of the types of firms that would be assessed and the basis for collecting the assessment (e.g., a per-unit tax on certain types of goods paid by the manufacturer). These issues have to be decided as the program is established. Otherwise, funding may never happen because agreement as to the correct magnitude of the claims and as to the basis for contributing to the fund will not occur.

D. Cash Payments From a Revolving Fund

A revolving fund is a pool of money out of which indemnity payments are made, which is regularly replenished through the repayment or recovery of expended funds. It is not unusual for such funds to be initially funded and even continually supplemented from general or special appropriations or from special assessments, fees or penalties from parties affected by or in some way related to the indemnifiable events.

The key aspect of revolving funds is that they take on some form of self reliance. This reduces the need for continued appropriations and can provide an incentive for good fiscal management by the agencies responsible for the program. This same aspect tends to make the program somewhat independent of Congress, thereby circumventing one of the more effective means of congressional oversight. For this reason, expenditures from such funds still may be made subject to annual appropriations acts even though funds are not coming from tax revenues.

Section 311 of the CWA and Superfund both have revolving fund characteristics. Funds expended for cleanup activities are later recovered if possible (i.e., if a responsible party can be found who is financially viable).

This type of system requires a pre-existing administrative apparatus to determine the rules for who pays, how much, and when.

E. Direct Assumption of Liability by the Government

An assumption of the underlying risk by the government can provide a substantial economic benefit though no payment is made. The government might or might not establish a means of paying for the loss before it occurs.

The swine flu program is a good example. Vaccine manufacturers were so concerned about potential suits that they demanded protection. The Congress finally agreed to make the sole cause of action one against the government. In addition to assuming the liability, the Department of Justice has absorbed the considerable cost of defending against the four thousand suits filed.

F. Special Tax Credit Resulting in Reduced Tax Revenues

A number of alternatives exist involving the government foregoing tax revenues for specific purposes. Foregoing tax revenues or making indemnification payments have the same net effect on the amount of government funds available for other purposes.

Losses suffered by reason of agency actions are usually eligible for deductions as ordinary business expenses. Thus, some tax assistance is already available. At times Congress has been explicit in declaring these losses eligible for a deduction, but not for indemnification. The tax bill of the summer of 1981 contained such a provision. Truck certificates which had formerly had considerable value were rendered worthless when the trucking industry was de-regulated. Congress used the tax bill to make clear its view that the trucking firms could take a deduction for the value of the certificates.[6]

Tax credits could provide a much greater benefit for losses considered more than ordinary expenses. Eligible firms would be allowed to reduce their tax liability by some specified amount. An important aspect of this alternative is the formula or set of guidelines that would specify the amount of the special tax credit. The amount of the credit would be related to the eligible losses suffered. For firms with tax liabilities that are less than the amount of the allowable special tax credit, the program could be designed to allow application of the credit to other years or could allow the credit to be sold to another firm.

Tax credit devices are administratively simple to operate, reducing the complexity of transfering an economic benefit to the indemnified parties. However, they should only be applied to very large programs affecting many people or firms. The required changes in tax forms and reference materials can only be justified by a widespread use of the new provision.

III. SELECTION OF AN APPROPRIATE FINANCING SYSTEM

The five financing system alternatives provide a sense of the spectrum of possible systems. In the discussion of each, dimensions along which it seems most appropriate to differentiate programs emerged, e.g., programs relying on regular appropriations may be most appropriate when indemnifiable events are predictable. Exhibit 1 summarizes important characteristics of the financial systems of existing indemnification programs.

In this section, guidelines are presented and discussed that can be used to help define the kind of financing alternative most appropriate for a particular indemnification program. The four aspects of an indemnification program are as follows:

- Purpose of the indemnification program;
- Cost of the event relative to an individual party's financial capability;
- Need for indemnification payments to be immediately available;
- Frequency and predictability of events.

A. Purpose of the Indemnification Payment

Indemnification programs usually exist for some combination of the following objectives:

- Remedying inequities;
- Creating disincentives to inappropriate or unreasonable action;
- Creating incentives for private parties or otherwise facilitating public goals.

For remedying inequities there is no inherent bias on the selection of funding methods. The key is that relief reach the correct parties and in an effective manner. Cash payments are the most direct distribution method, but tax credits or other forms of indirect relief can be just as valuable and effective under the right circumstances.

The second two objectives are somewhat independent of distribution methods, but can be affected substantially by the choice of funding methods. For example, a program whose "objective is to encourage greater industry care in handling hazardous materials" might choose special taxes on chemicals as a source of revenues for indemnifying

parties against the voluntary assistance in cleanup activities. Likewise, a program aimed at discouraging ill-founded enforcement actions might draw some or all of its funds directly from agency operating budgets.

Creating incentives for private parties also may depend upon the degree of certainty the parties feel. If the indemnification program is established and funded in advance, private parties are more likely to believe in the program and thus to be motivated by it. However, some parties require more certainty than others. The contractor hired to clean up abandoned waste sites were satisfied with a contingent promise to consider indemnifying them when a loss occurs. Swine flu vaccine manufacturers transfered their entire potential liability (except that resulting from negligence) before they began to manufacture the vaccine.

B. Need for Immediate Payment

The need for immediate receipt of funds to respond to the indemnifiable event has a bearing on the choice of financing system. Some indemnifiable events involve large costs to individuals or firms. If immediate payment is not forthcoming, serious economic harm may occur. Also, for some incentive programs, immediate payment is important to the success of the programs.

The USDA animal disease indemnification program[5] provides an example of this point. If the Secretary of Agriculture declares a national disease emergency for some animal disease situation, funds for eradication and indemnification are made available from the Commodity Credit Corporation. These funds must subsequently be paid back through congressional appropriations. The success of these disease emergency situations depends on quick government action and on industry cooperation. That cooperation is in turn dependent on the availability of indemnification funds to replace animals destroyed as part of the eradication program. Thus, speedy distribution of indemnification payments is essential, and hence, the need for a funding arrangement such as borrowing the Commodity Credit Corporation funds. However, the administrative costs necessary to provide quick response can only be justified by the expectation of a series of losses.

C. Frequency and Predictability of Events

Another major factor to consider in choosing the financing system is the likely frequency and predictability of the indemnifiable events. Some events recur with a regularity that allows for estimating the expected annual costs and requires an administrative apparatus to handle claims. Other events might occur so infrequently and with widely varying costs as to make the total required payments unpredictable. In cases where the event is frequent, up-front financing through insurance-like mechanisms or regular appropriations

can be appropriate. Up-front financing becomes less attractive, if events occur infrequently and with widely varying costs.

IV. CONCLUSION

There are many financing mechanisms appropriate to indemnification programs. Choosing between them should be done in the context of a particular program to ensure that the financing components are compatible with the aims of that program.

EXHIBIT

CHARACTERISTICS OF EXISTING INDEMNIFICATION FINANCIAL SYSTEMS

Program	Benefit Distribution Method	Funding Method	Purpose of Program*	Costs of Events Relative to Financial Capability	Need for Immediate Payment	Frequency and Predictability of Events	Unique Aspects
USDA Animal Disease	Cash payments	Regular Appropriations	3	Can be very high	Yes	High	Ability to borrow funds from Commodity Credit Corp. for emergencies.
EPA § 113(b) Clean Air Act	Cash payments	Appropriations to Insufficient Claims and Judgments Fund	1,2	Low	No	Low	
EPA § 202(a)(3) Clean Water Act	Cash payments	Regular Appropriations**	3	Uncertain	No	Low	
EPA § 15 FIFRA	Cash payments	None established	1, 2, 3	Low-Moderate	No	Low	Relied on industry consolidation of claims in Silvex case.
Arts and Artifacts	Cash payments	Special Appropriations	3	Can be high	No	Low	
EPA § 311 Clean Water Act	Cash payments	Special Appropriations plus recoveries of funds from responsible parties	3	Can be high	No	High	

*1 = Remedying inequities.
2 = Creating disincentives to inappropriate or unreasonable government action.
3 = Creating incentives for private parties or otherwise facilitating a public goal.

** Payment of the indemnity is not a certainty. If a grantee qualifies for the indemnity, they must still compete for the funds with other potential uses.

FOOTNOTES

[1]A more detailed discussion of this area can be found in "Identification and Preliminary Evaluation of Basic Financing System Options for an EPA Indemnification Program," EPA, Prepared by American Management Systems, Inc., December 1979.

[2]Equal Opportunity Act of 1964, § 331(a) (rider to EOA).

[3]Arts and Artifacts Indemnity Act, Public Law 94-158, 20 U.S.C. §§ 971 et seq.

[4]This assumes that the firms have played some part in bringing about the situation requiring correction.

[5]21 U.S.C. §§ 114(a), 134(d).

[6]26 U.S.C. 165 (note), 95 Stat. § 266 (Aug. 13, 1981).

APPENDIX E

COSTS AND IMPACTS OF INDEMNIFICATION

I. GENERAL APPROACH

An approach to estimating the cost and impact of an indemnification program is first discussed in general, and then illustrated by application to a hypothetical TSCA indemnification program, and a hypothetical ban of a pesticide under FIFRA.

The costs to the government for an indemnification program are largely a function of (1) the number of indemnifiable events and (2) the cost of each event. Estimates of the number of indemnifiable events require:

- definition of what constitutes an indemnifiable event,
- specificity of estimates by type of event, and
- estimates of expected values and likely upper bounds on the number of events of each type.

Estimates can be formed on the basis of a review of past experience of the program, review of similar programs, and opinions of experts.

The cost of each indemnifiable event must also be estimated. These estimates require:

- definition of the coverage of the program,
- data on costs of similar events or other relevant data, and
- data by type of indemnifiable event.

Total costs of a program are estimated as the product of the number of events and the cost of each event. A range can be established around this estimate using ranges determined while estimating the number and cost of events. The range of estimates provides a measure of the uncertainty associated with the estimates.

Only after the costs are reliably estimated can any analysis of the impacts of the cost be made. The impact is the effect that the cost has on the economic viability and behavior of the parties directly and indirectly affected.

Although the methodology is straightforward, applying it is not. The § 15 model limits indemnifiable costs to inventory. This is a comparatively concrete and verifiable measure. It is not the only measure of loss that could be used. However, using any other measure would add to the problems of estimating cost. For example if indemnification is desired to compensate for all of a company's loss when a

product is banned, some way would have to be found to value the research and development costs, the overhead sunk into the product, the future profits now lost, the cost of substitutes for customers, etc. This would be much more difficult to reliably estimate since the lack of definiteness leaves room for argument, and since the amounts would vary so much depending upon when in a product's life cycle the regulation was imposed, what kind of product it was, and whether the firm was a manufacturer, distributor, or user.

Estimating the frequency of unplanned events, especially new programs dissimilar to existing programs, may produce widely varying costs depending on assumptions. This is especially true for programs involving events that occur infrequently. Another complicating factor is that the existence of the program itself may alter behavior of the government, individuals, or firms. For example, a government agency might be more likely to act in a situation which would result in indemnification payments because the affected parties would be less severely impacted by the action with the availability of compensation. The government agency could also be envisioned to be less likely to act because it might have to make large indemnification payments. These impacts on behavior are difficult to pin down since they must be based on good cost estimates, but will also affect the cost of the program. The descriptions of impacts also rely on the hypothesis that a government agency faced with a potentially costly decision will react in the same way that a "reasonable economic man" would. This hypothesis may well be incorrect. The only thing that can be said with some certainty is that the total cost of an indemnification program will not approach the magnitude necessary to have an impact on the overall federal budget or the economy of the country. The cost of a program might well be large enough to affect the budget of an individual agency or program.

Estimating costs of each event is also difficult, especially where there is great variability between different events. One can deal with "average" events, but if the number of events is small, high uncertainty will be associated with the estimate of program costs. Another difficulty can occur in obtaining data for the analysis. Some of the key data items may not be publicly available and those with the data may not cooperate by supplying it to the analysis. Assumptions and estimates can be made from the data that are available, but the results will be less certain than otherwise.

The difficulty and uncertainty associated with estimates of indemnification program costs can be a deterrent to establishment of an indemnification program. With high uncertainty in what the program will cost, the actual costs could far exceed what is estimated to be the expected cost. Over a number of years, the estimate of expected annual costs could be expected to more closely approximate the running average of the actual costs than would the expected average cost approximate the actual cost for any particular year. It could be dif-

ficult to "sell" a program with greatly fluctuating costs even if the expected average annual costs approximated the actual average annual costs.

There are cost continment techniques that could be used to over come the problem of uncertainty, though they would limit the amount of indemnification received and thus possibly reduce the effectiveness of the program. A ceiling can be placed on the size of individual claims, or on the amount of expenditures that the program could make in any one year. The indemnification program might only be authorized for a year or two to give Congress an opportunity to reconsider based on actual experience.

In part II of this appendix, the costs of a hypothetical TSCA indemnification program are analyzed, and in part III an attempt is made to analyze the impacts of a hypothetical pesticide ban under FIFRA.

II. COST OF A TSCA INDEMNIFICATION PROGRAM

A. Introduction

The Toxic Substances Control Act (TSCA) does not provide indemnification for any costs incurred by individuals and firms as a result of TSCA actions taken by EPA. In this paper, we analyze the costs that would be associated with a hypothetical TSCA indemnification program -- one patterned after the Federal, Insecticide, Fungicide, and Rodenticide Act (FIFRA) § 15 indemnification program.

We hypothesize that the TSCA program would apply only to chemicals which have made it through the TSCA § 5 premanufacture notification (PMN) review process and for which the manufacture, processing, distribution, use, or disposal is subsequently prevented by EPA action under § 6 or 7. Indemnification would be provided to compensate for the cost of the chemical held by any individuals or firms at the time of the EPA action.

B. Costs

The cost to EPA of a TSCA indemnification program of this type is a function of the number of chemicals likely to be banned and the cost of the inventory in those chemicals when the bans are imposed. Each of these factors will be discussed in turn.

1. Number of Banned Chemicals

The number of chemicals likely to be banned is a function of the thoroughness of the PMN review and the frequency that EPA uses product bans with no inventory sell off as a regulatory device. The thoroughness of the review process is of course relative. Because of this, it is useful to compare the PMN review process with the pesticide preregistration review process that occurs under FIFRA. With a sense of how these review processes compare, we can review the FIFRA registration cancellation experience and analyze what general implications it might have for the number of chemicals that make it through the PMN process and would subsequently be regulated. Of course, there are basic differences between pesticides and other chemicals which limit the usefulness of comparisons between the review processess.

In a previous comparison[1] of the PMN and FIFRA review processes, we concluded that the two processes are very different. The most significant difference is that TSCA requires none of the testing that is the backbone of the FIFRA process. The testing required for approval of a new pesticide is quite lengthy and costly. The PMN process, on the other hand, is intended as an initial screening and reporting mechanism and is not intended to provide a examination of all risks.

Even with the thorough review process before pesticides are registered, there still have been over ten pesticide registrations cancelled or notices of intent to cancel issued. This indicates that a preregistration review process does not ensure that unreasonably unsafe pesticides will be prevented from being registered.

This FIFRA experience implies that some number of chemicals that make it through the PMN review process will be subsequently regulated by EPA. The FIFRA experience, however, cannot reasonably be used to estimate the number of chemicals involved. This is because pesticides by their nature are more toxic than the average chemical and therefore cannot be considered representative of chemicals in general. The criteria for subsequent EPA regulation are also different for pesticides than they are for other chemicals.

EPA has to date initiated very few regulatory actions under § 6 of TSCA. None of these § 6 actions have been directed at chemicals that have made it through the PMN review process. Because most of the chemicals now on the market were introduced before TSCA was implemented, we would expect to see over the next decade very few EPA actions taken against chemicals that have been reviewed prior to commercial production. Additionally, product bans represent an extreme regulatory action and would be expected to occur infrequently. For these reasons, over the long term an assumption of one product ban every two years involving a chemical that made it through the PMN process could be considered a conservative upper bound on the actual number of such bans that will occur over time.

2. Value of Inventory of Banned Chemical

The value of the inventory of a banned chemical depends on the chemical's production volume, price and use patterns. In a previous analysis[2] of a sample of 1,459 chemicals from the TSCA Chemical Inventory which were candidates for a § 8 reporting rule, we determined the distribution of these chemcials across a series of production categories. This information is shown in Exhibit 1. If we assume that all chemicals within a production category are produced at the production volume represented by the midpoint of the category, the average production volume can be calculated to be approximately 88 million pounds.

EXHIBIT 1

PRODUCTION VOLUME DISTRIBUTION OF SAMPLE OF 1,459 CHEMICALS FROM THE TSCA CHEMICAL INVENTORY

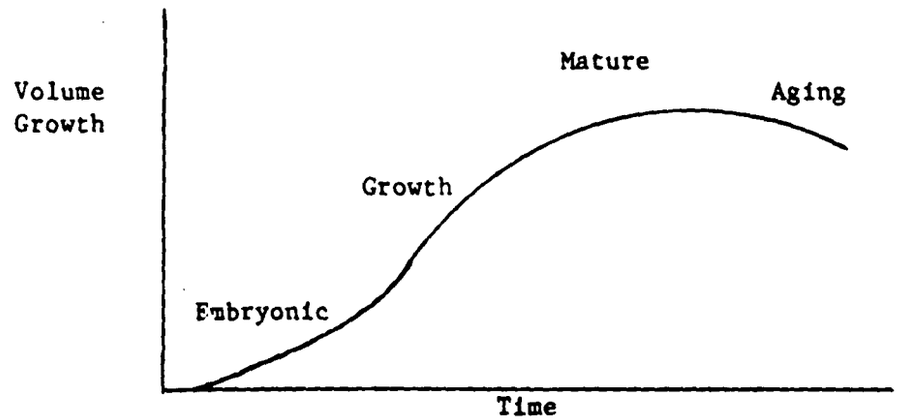
Production Range (lbs)	Percentage of Chemicals in Category % a/
0 - 1,000	11.5
1,000 - 10,000	7.8
10,000 - 100,000	11.2
100,000 - 1 million	14.4
1 million - 10 million	15.8
10 million - 50 million	14.8
50 million - 100 million	7.0
100 million - 500 million	13.0
500 million - 1 billion	2.4
greater than 1 billion	2.1

a/ These percentages relate only to the chemicals in the sample of 1,459 for which production volume was reported.

Source: "Analysis of TSCA § 8(a) Small Manufacturer Exemption," ICF Incorporated, May 1981.

There are three reasons why this average may be higher than the average production volume of chemicals that have been banned after having made it though the PMN process. Firstly, because economic impact would be factored into consideration of a product ban, we would expect higher volume chemicals to be less likely to be banned than lower volume chemicals. Secondly, the sample of 1,459 chemicals may have been biased toward larger production volumes because these chemicals were selected on the basis of the degree of hazard they potentially presented. This means that larger production volume chemicals would be over-represented because, everything else being equal, they represent more hazard than do lower production volume chemicals. The third reason that the 88 million pounds might be biased upwards as an estimate of the average production volume of PMN "cleared" chemicals that are subsequently banned, relates to the difference in age of the 1,459 chemicals versus PMN "cleared" chemicals. The production volume of a chemical typically follows a life-cycle as shown in Exhibit 2. Newer chemicals will tend to be of lower production volume than more mature chemicals. Therefore, one would expect the production volumes for the 1,459 chemicals to be higher than a sample of relatively new chemicals. However, over time the universe of chemicals which have "cleared" the PMN process will increase and their age profile will become closer to the age profile of the 1,459 chemical sample. For purposes of this analysis, we will use the 88 million pound average, recognizing that it probably is an inflated estimate.

EXHIBIT 2
TYPICAL CHEMICAL LIFE-CYCLE



Source: "Impact of TSCA Proposed Premanufacturing Notification Requirements," Arthur D. Little, Inc., December 1978.

The volume of manufacturers' sales associated with the 88 million pounds of chemicals can be estimated by multiplying by the average price of a pound of chemicals. Most commercial chemicals sell for under $1 per pound.[3] For purposes of this analysis we will assume a $.75 per pound price for the average chemical. Therefore sales for the average chemical equals $66 million.

In 1979, for a sample of 75 chemical companies, the average ratio of sales to inventories was 6.9.[4] Applying this ratio to the $66 million in sales for the average chemical yields $9.6 million in manufacturers' inventories associated with the average chemical. Additional inventories in the chemical are held by distributors and users.

Most chemicals are intermediate materials sold to other manufacturers who process them into end products.[5] Also, most large chemical users buy direct from the manufacturers; less than 12% of all chemicals are sold through distributors.[6] We assume that the inventory holding practices of distributors and users is the same as the manufacturers. We therefore assume that the distributors and users combined hold an additional $9.6 million in inventories of the average chemical.

We assume that the values of inventory we have estimated are based on firms valuing their inventories on retail prices. With that assumption we can use the same factors EPA used to estimate inventory cost in calculating the level of indemnification to be payed in the Silvex registration cancellation under § 15 of FIFRA. In the Silvex situation, the cost of the manufacturer's inventory was set at 70% of

the invoice price, and the cost of the users' and distributors' inventory was set at 115% of the invoice price. The cost of manufacturers' inventories of the average chemical are therefore $6.7 million and the cost of the distributors' and users' inventories are $11 million. The total cost of inventories is therefore $17.7 million.

We have assumed that every two years there will be one production ban involving the payment of indemnification funds for the cost of inventory. Therefore $17.7 million in indemnification will be paid out every two years or an average of about $9 million per year.

C. Indemnification Impacts

1. Government

It is not clear how the requirement to pay indemnification for inventory losses associated with product bans would influence the government's decision regarding the ban. Product bans are an extreme regulatory action that are unlikely to be used except where their need is clearly warranted. This would imply that an indemnification provision would not have a significant influence on whether or not to declare the ban. However, there may arise decisions regarding product bans that are close calls. The availability of indemnification funds could result in not banning the chemical because of the need to pay out a large amount of compensation to the industry. The availability of indemnification funds could also have the opposite effect in influencing the government to ban the chemical because the economic impact to the industry would be softened, though this does not seem likely.

2. Manufacturers

The decision to invest in the production of a new chemical involves consideration of the expected returns from that investment and the uncertainty associated with those returns. An indemnification provision which would cover the cost of an inventory loss as a result of a product ban under TSCA would make investment in new chemicals more attractive.

The degree to which an indemnification provision would increase the attractiveness of investment in new chemicals is a function of the ratio of the amount of losses covered by indemnification to the amount of total losses. In our analysis of the FIFRA § 15 indemnification provisions, we found that, for the pesticide we studied, the indemnification program should not significantly alter the initial investment decision. This same conclusion applies to chemicals similar to the pesticide we studied. It is likely that with product bans an uncommon regulatory approach, manufacturers' investment behavior in new chemicals should not change significantly.

3. Distributors

As we have pointed out, distributors handle only a small part of chemical sales. Their losses due to a product ban would be mostly their inventory cost. If this is indemnified, their losses would be small. Without indemnification, they would tend to hold smaller inventories and perhaps diversify more in the products they handle. However, as product bans do not occur often, distributors are unlikely to significantly alter their behavior.

4. Users

The primary users of chemicals are chemical manufacturers themselves. Without indemnification, these users would tend to hold smaller inventories and might be less likely to use chemicals that have a high probability of being banned. However, the predominant factor in choosing between chemicals would relate to how well they serve the users' purposes.

III. SOME INDEMNIFICATION IMPACTS OF FIFRA PROGRAM

The direct benefit of indemnification to qualifying manufacturers, distributors, and users is the payment of the cost of finished pesticide inventory in stock at the time of cancellation that cannot be sold or used. Cost is not defined in the statute; however it may not exceed the fair market value of the inventory. The cost of such inventory is different for each part of the pesticide distribution chain. In the Silvex situation, the cost of the manufacturer's inventory was set at 70% of the invoice price, and the cost of the users' and distributors' inventory was set at 115% of the invoice price. We have not been able to determine the basis for these percentages, however they appear consistent with price markups in the pesticide industry.

A. Manufacturers

The impacts of pesticide registration cancellations on the manufacturers are determined by the timing of the cancellation. A manufacturer must typically invest large amounts of funds in research and development, production, and promotion over a period of years before a pesticide begins to be profitable. For many years, the cash flow from the investment is negative. One estimate is that sales begin for the average pesticide eight years after it is first synthesized.[7] Therefore, if a pesticide is cancelled soon after registration, the manufacturer will take a heavier loss than if the cancellation occurs later in the pesticide's life cycle.

Also, a manufacturer's inventory of a pesticide varies over the year because while production is relatively constant, usage is seasonal. Generally speaking, inventories are highest immediately before the growing season and lowest immediately afterwards. Hence, a registration cancellation immediately before the season will result in higher potential inventory losses to manufacturers than would a registration cancellation after the season.

In making investment decisions regarding the production of a new pesticide, a manufacturer considers the expected return from the investment and the uncertainty (risk) associated with that return. Because returns and the risks associated with those returns are positively correlated (i.e., high returns are usually associated with high risks), a manufacturer must accept some risk to achieve a desired level of expected return.

To a manufacturer of pesticides, the possibility that EPA might cancel a registration at some future time translates into increased uncertainty (risk) associated with investment in a particular pesticide. The fact that indemnification payments might be available

(under certain conditions) for some cancellations theoretically could provide some incentive to a manufacturer to invest more in pesticide research and development and production than would otherwise be invested. This is because some of the investment risk is removed by the availability of the indemnification payments.

The degree to which the availability of indemnification payments for inventory losses may affect manufacturers' investment decisions can be assessed to some extent through analysis of the expected cash flows associated with a typical pesticide. Framing the analysis in this way can provide important insights in this regard. However, a full assessment of the impact of indemnficiation payments on manufacturers' investment decisions would involve detailed study of a representative sample of pesticides. Perhaps some particular category of pesticides (e.g., moderate volume pesticides involving small research and development costs) would be more (less) sensitive to the availability of indemnification payments than would other categories. Such an approach was beyond the scope of our available time or budget.

Exhibit 3 provides cash flow information of the insecticide TH 6040. TH 6040 was discovered in 1969, and extensive research and development expenditures were necessary before the first registration was obtained at the end of 1975. Presumedly the pesticide will be a viable, commercial product until the end of the century. We can apply the net present value (NPV) method, commonly used in business, to determine the viability and profitability of an investment, to analyze alternative registration cancellation scenarios and the impact of indemnification payments on the initial investment decision. With NPV, the timing of the cash flow and the discount rate assumptions can be as important as the magnitude of the case flows themselves.

The relative riskiness of an investment project is reflected in the discount rate assumptions; in essence, the higher the risk, the higher the discount rate. Intuitively, this means that future dollars, being more uncertain, are valued less; the more uncertainty associated with the future, the higher the discount rate. For the development of commodity type pesticide chemicals, the discount rates often range from 10 to 15 percent.[8] For new innovative high-risk pesticides, they can range from 15 to 25 percent. In the NPV analysis of TH 6040, we bound the analysis by using discount rates of both 10 and 20 percent.[9] The discounted cash flows from the pesticide, given no cancellations, are shown in Exhibits 4 and 5. If no cancellations occur, TH 6040 is expected to be very profitable.

The effects of cancellation one, five, and 10 years after registration are shown in Exhibits 6 and 7. Inventory losses are not shown because they depend on the inventory level assumptions. Each pesticide manufacturing plant is assumed to be worth 40% of its original cost as salvage value.[10] This is a very rough estimate, subject to a large variance. Clearly, a plant could be worth a great deal more

EXHIBIT 3

EXPECTED CASH FLOWS OF TYPICAL PESTICIDE - TH 6040
($ in thousands)

Year	Production (lbs)	R&D Costs	Sales at $16/lb	Production and Distribution Costs	Capital Costs 1/	Pre-Tax Cash Flow	Gross After-Tax Cash Flow	After-Tax Depreciation Benefits 2/	Net After-Tax Cash Flow
1969	0	-875.0				-875.0	-437.5	0	-437.5
1970	0	-875.0				-875.0	-437.5	0	-437.5
1971	0	-264.0				-264.0	-132.0	0	-132.0
1972	0	-540.0				-540.0	-270.0	0	-270.0
1973	0	-1,060.0				-1,060.0	-503.0	0	-503.0
1974	0	-1,230.0			-1,125.0	-2,355.0	-1,177.5	56.3	-1,121.3
1975	0	1,450.0			-1,125.0	-2,575.0	-1,287.5	112.5	-1,175.0
1976	3,675	-642.0	58.8	-191.1	0	-774.3	-387.2	112.5	-274.7
1977	79,163	-359.0	1,266.6	-604.2	0	303.4	151.7	112.5	264.2
1978	223,994	-30.0	3,583.9	-1,396.8	0	2,157.1	1,078.6	112.5	1,119.1
1979	370,356	-30.0	5,925.7	-2,197.7	-1,125.0	2,573.0	1,286.5	168.8	1,455.3
1980	682,106	-30.0	10,913.7	-4,074.7	1,125.0	5,684.0	2,842.0	225.0	3,067.0
1981	1,155,788		18,492.6	-6,666.8	0	11,825.8	5,912.9	225.0	6,137.9
1982	1,557,338		24,917.4	-9,035.2	-1,125.0	14,757.2	7,378.6	281.3	7,659.9
1983	1,889,013		30,224.2	-11,021.3	-1,125.0	18,077.9	9,039.0	337.5	9,376.5
1984	2,220,744		35,531.9	-12,836.6	0	22,695.3	11,347.7	281.3	11,629.0
1985	2,388,700		38,219.2	-13,755.7	0	24,463.5	12,232.0	225.0	12,457.0
1986	2,392,881		38,286.1	-13,778.6	0	24,507.5	12,254.0	225.0	12,479.0
1987	2,395,288		38,324.6	-13,791.0	0	24,533.0	12,266.0	225.0	12,491.0
1988	2,355,394		37,686.3	-13,573.5	0	24,113.0	12,056.0	225.0	12,281.0
1989	2,274,256		36,388.1	-13,129.5	0	23,259.0	11,629.0	168.8	11,798.0
1990	2,192,200		35,075.2	-12,680.4	0	22,395.0	11,197.0	112.5	11,310.0
1991	2,018,181		32,290.9	-11,728.1	0	20,563.0	10,281.0	112.5	10,394.0
1992	1,752,188		28,035.0	-10,101.5	0	17,934.0	8,967.0	56.3	9,023.0
1993	1,485,206		23,763.3	-8,640.5	0	15,123.0	7,561.4	0	7,561.4
1994	1,204,725		19,275.6	-7,003.1	0	12,273.0	6,136.0	0	6,136.0
1995	948,225		15,171.6	-5,531.0	0	9,641.0	4,820.0	0	4,820.0
1996	679,850		10,877.7	-4,062.4	0	6,815.0	3,408.0	0	3,408.0
1997	455,075		7,281.2	-2,661.3	0	4,620.0	2310.0	0	2,310.0
1998	273,044		4,368.7	-1,665.2	0	2,704.0	1,352.0	0	1,352.0
1999	91,013		1,456.2	-668.1	2,700.0	3,487.1	1,743.6	0	1,743.6

Source: SRI, New Innovative Pesticides, 1977, with additions cited in the footnotes below.

1/Three $2.25 million plants was assumed to have been required to manufacture the pesticides. Salvage value of the plants was assumed to be 40 percent of the original cost.
2/Ten year straight line depreciation, assuming a 50 percent tax rate.

EXHIBIT 6

EFFECTS OF CANCELLATION ON THE NPV
OF CASH FLOWS, BEFORE VALUE OF INVENTORY IS CONSIDERED*
($ in thousands)

	No Cancellation	Cancellation After 1 Year	Cancel-lation After 5 Years	Cancel-lation After 10 Years
Cumulative Cash Flows (less salvage value of plant)	41,833	-4,619	1,930	22,317
Salvage Value of Plant(s)	78	677	923	860
NPV	41,911	-3,942	2,853	23,177

*Assumes 10 percent discount rate.

EXHIBIT 7

EFFECTS OF CANCELLATION ON THE NPV
OF CASH FLOWS, BEFORE VALUE OF INVENTORY IS CONSIDERED*
($ in thousands)

	No Cancellation	Cancellation After 1 Year	Cancel-lation After 5 Years	Cancel-lation After 10 Years
Cumulative Cash Flows (less salvage value of plant)	11,989	-5,368	-1,497	7,056
Salvage Value of Plant(s)	9	520	503	303
NPV	11,998	-4,848	-994	7,359

*Assumes 20 percent discount rate.

than 40% of its original cost if it can serve, with minimal change-over, to produce another pesticide or chemical. A plant could be worth much less if the machinery, building and location are unsuitable for production of an alternative. The results would not be materially affected for TH 6040 if a 0 or 100 percent salvage value were assumed.[11]

Research and development expenditures for one pesticide often can benefit the development of other pesticides. In an ideal and most certainly non-existent cost accounting system, the percentage of research and development expenditures that would benefit other pesticides would be allocated to these pesticides. We assume that this has been done in the case of TH 6040, although it would not materially affect the analysis if the proper allocations had not been made.

Exhibits 6 and 7, before considering inventory effects, show the significant impacts of a cancellation one year after registration. Even a cancellation 10 years after registration reduces the NPV significantly. However, the effects of finished inventory in stock at the time of suspension can be indemnified. To determine those effects, we must estimate the levels of inventory that would exist at the time of suspension.

Immediately before the Northern Hemisphere pesticide application season, pesticide inventories are at a peak. Industry representatives have stated that inventory could amount to as much as 100% of a year's production.[12] Immediately after the Northern Hemisphere application season, the pesticide inventories are apt to be at the lowest levels. We will assume 10% of a year's production to be a safe lower bound, 50% as a seasonable average inventory level, and 100% as an upper bound.

Exhibit 8 shows the after tax value of the pesticide inventory, assuming the manufacturer receives the full wholesale price of $10 a pound (62.5% of retail) in indemnity payments. We assume that the TH 6040 manufacturer is in effect "selling" its inventory at the wholesale price, therefore they make a profit on the transaction.[13] Without indemnification, the manufacturer loses the variable costs of producing the inventory (remember the fixed costs have already been counted). Depending on what assumptions are chosen, the indemnification program would raise the after-tax NPV of TH 6040 from $24,000 to $4,810,000.

These are not insubstantial sums, but the crucial question is their impact on the investment decisions of the firm. In other words, how much is the expected NPV of an investment changed by the indemnification program. Cancellation of a pesticide regulation, after all, is a rare event; only nine of any significance have occurred since 1970.[14]

EXHIBIT 8

NET PRESENT VALUE OF INVENTORY GAINS/LOSSES:
WITH AND WITHOUT INDEMNIFICATION
($ in thousands)

Inventory Levels as a Percentage of Production

10% Discount Rate		WITH INDEMNIFICATION			WITHOUT INDEMNIFICATION		
		100%	50%	10%	100%	50%	10%
Years After Registration	1	249	125	25	-71	-35	-7
	5	3032	1516	303	-706	-353	-71
	10	3902	1951	390	-907	-454	-91

20% Discount Rate		100%	50%	10%	100%	50%	10%
Years After Registration	1	191	96	19	-54	-27	-5
	5	1652	826	165	-384	-192	-38
	10	1374	687	137	-319	-160	-32

We will assume a high expected cancellation rate for TH 6040 to magnify the effects of the indemnification program on the NPV. We will assume that the probability of cancellation increases as the pesticide becomes older, its use becomes more widespread, and any chronic health effects would have had time to develop. We assume a 1% chance of cancellation a year after registration, a 5% chance of cancellation five years after registration, and a 10% chance of cancellation ten years after registration. For purposes of illustration, we assume a 10% discount rate and an inventory level of 50% of the production of the year following cancellation.

Exhibit 9 shows that, even with these very high cancellation probabilities, the expected NPV of TH 6040 is only increased $336.00 by the indemnification. This amount, less than 1% of the expected NPV, is not large enough to significantly influence decision making for most companies.

The conclusions of this analysis agree with anectodal evidence gathered from industry representatives, both during the original legislative hearings and in recent interviews.[15] The current indemnification program should have had little effect on the amount of money invested in the research and development, production, or marketing of pesticides of the type represented by the pesticide we have analyzed. For pesticides with lower research and development or capital costs, overall losses associated with cancellation would be more senitive to inventory losses. On the other hand, pesticides with expected low research and development costs are likely to be more similar to chemicals currently registered and thus are probably less likely to be more similar to chemicals currently registered and thus are probably less likely to be cancelled than a truly innovative pesticide such as TH 6040. Furthermore, a pesticide would have to have very much lower research and development and capital costs than TH 6040, even assuming identical expected cancellation probabilities, for the availability of indemnification payments to make much difference in the investment decision.

B. Distributors

The distributors of pesticides typically invest very little except the cost of inventory in any given pesticide. If a pesticide registration is cancelled, they can usually sell a substitute product. The substitute product may be more or less profitable and the routine of business may be disrupted, but on the whole the majority of the cost of cancellation to a distributor is captured in their cost of inventory. The § 15 indemnification program is aimed at reimbursing these costs. Without indemnification, distributors would have incentives to keep inventories low and to diversify into handling more different pesticides. Any higher risk of loss would be translated into higher retail prices, i.e., they would require a higher return to accept the higher risk.

EXHIBIT 9

IMPACT OF INDEMNIFICATION ON THE NET PRESENT VALUE OF A PESTICIDE
($ in thousands)

With Indemnification				Without Indemnification				Amount Gained by Indemnification
Probability		Amount		Probability		Amount		
0.84	x	41,911	= 34,205	0.84	x	41,911	= 34,205	
0.10	x	25,128	= 2,513	0.10	x	22,723	= 2,272	
0.05	x	4,368	= 218	0.05	x	2,500	= 125	
0.01	x	-3,817	= -38	0.01	x	-3,977	= -40	
		NPV	$36,898				$36,562	$336

$$\frac{\$336 \text{ (Amount Saved with Indemnification)}}{\$36,562 \text{ (Original NPV without Indemnification)}} = 0.9\% \text{ of original NPV is indemnity}$$

Assume: 10% discount factor
50% of production in inventory
10% probability of imminent hazard cancellation after 10 years
5% probability of imminent hazard cancellation after 5 years
1% probability of imminent hazard cancellation after 1 year

C. Users

The users of pesticides invest relatively little in pesticides. Farmers are major users and less than 10% of their annual variable costs per acre are pesticide purchases.[16] However, if a pesticide of choice is not available, the farmer will have to depend on an alternative, probably inferior pesticide until an adequate substitute is available. Therefore, the losses to a farmer from a registration cancellation are predominantly dependent on the annual losses sustained by using an inferior alternative and the number of years the alternative must be employed. One would expect that the amount of money invested in the cancelled pesticide itself to be a small percentage of the total losses. Indemnification against these losses would not significantly alter a farmer's choice of pesticides. The absence of such indemnification payments might influence some farmers to hold less pesticides in storage for future needs.

An illustrative example of the registration cancellation losses to a farmer is provided by the case of Silvex use on sugar cane in Florida.[17] For three years after the cancellation of Silvex, the pesticide 2,4-D would have to be substituted on Florida sugar cane resulting in average yield loss.

EXHIBIT 10

CANCELLATION AND INDEMNIFICATION EFFECTS ON A USER:
SILVEX VS. 2,4-D USE ON FLORIDA SUGAR CANE

Pesticide	Amount of Pesticide Used (lb/acre)	Pesticide Unit Cost ($/lb)	Pesticide Cost ($/acre)	Private Application Cost ($)	Total Pesticide Cost Per Acre ($)	Tons of Cane Yield Per Acre	Value of Cane ($/ton)	Pre-Tax Revenue ($/acre)
Silvex	1	5.50	5.50	2.00	7.50	30.4	20.06	609.82
2,4,D	2	2.13	4.26	2.00	6.26	21.3	20.06	427.28

Pretax Revenue per Acre:	$609.82	Silvex
	-427.28	2,4-D
	$182.54	
Less difference in pesticide cost:	-1.24	
Difference in gross revenue per acre:	$181.30	

Assumptions:
- For 3 years after cancellation, no substitute except 2,4-D.
- After 3 years a perfect substitute.
- Transition costs are zero.
- Prices hold constant.
- No shifting of cane growth from current average.
- 1979 dollars.

FOOTNOTES

[1]"Economic Analysis of Final Section 5 Notice Requirements, Appendix F: Comparison of TSCA Premanufacture Notification Procedures, the Pre-Market Procedures under FFDCA, and the Registration Process under FIFRA," ICF Incorporated, July, 1981.

[2]"Analysis of TSCA Section 8(a) Small Manufacturers Exemption," ICF Incorporated, May 1981.

[3]"Preserving Innovation Under the Toxic Substances Control Act," Chemical Manufacturers Association, January 20, 1982, p. 26.

[4]Kline Guide to the Chemical Industry, Fourth Edition, Charles H. Kline and Co., Inc., Fairfield, N.J., Susan Curry, Editor, 1980, p. 46.

[5]Id. at 66.

[6]Id. at 67.

[7]J.D. Riggleman, Presidential Address at the 33rd Annual Meeting of Northeastern Weed Science Society, Boston, January 3, 1979.

[8]Based on interviews with new product development personnel at several major pesticide manufacturers.

[9]These discount rates are net of inflation. The effect of inflation has been eliminated from the analysis by using constant dollars.

[10]Based on interviews with new product develoment personnel at several major pesticide manufacturers.

[11]A pesticide formulation plant would probably be worth considerably more than 40% of original cost, because of the ease of transition from one formula to another. We do not specifically consider the case of the formulation plant in this example.

[12]Testimony on H.R. 4152 by Richard Wellman, Vice President and General Manager, Union Carbide Company before the House Committee on Agriculture, March 1971.

[13]We could have alternatively assumed the manufacturer would only receive their variable costs of producing the product as inventory payments. If this were the case, the manufacturer might be able to sell the inventory to customers in countries that do not recognize EPA cancellation actions.

[14]EPA Pesticide Cancellations/Suspensions: A Survey of Economic Impact, Office of Pesticide Programs, March 1980.

[15]Based on testimony before Congress and recent conversations with personnel of two major pesticide producers.

[16]Economics of the Pesticide Industry, ICF Incorporated, for EPA Office of Pesticide Programs, August 1980, page 3.

[17]Data taken from The Biologic and Economic Assessment of Silvex. A report of the USDA-States-EPA Silvex RPAR team, Draft Final Report, March 2, 1981.

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