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THE NATIONAL ENVIRONMENTAL POLICY ACT’S FIRST FIVE YEARS

By Stuart L. Deutsch*

The National Environmental Policy Act became effective with the new decade of 1970.¹ In the first five years of NEPA’s history it has been interpreted in several sets of guidelines prepared by the Council on Environmental Quality (CEQ)² and other federal agencies.³ In addition, it has been extensively interpreted and analyzed by federal courts in almost 500 cases,⁴ and has been widely discussed in many law review articles⁵ and other literature.⁶ As a result of the extensive activity and debate engendered by NEPA, the effects of some aspects of NEPA on federal agency activity have been clearly defined and established. But other aspects of NEPA’s impact on federal agency behavior have been substantially confused and obfuscated.

This article will survey the requirements of the National Environmental Policy Act (NEPA) within the framework of relevant federal guidelines and court decisions of major significance reported prior to January 1, 1975. It is hoped that this article will provide the reader with a broad overview of NEPA of a sort not often provided in NEPA literature, while referring the reader to works of a more specific nature (including other articles in this issue of ENVIRONMENTAL AFFAIRS), which treat in greater depth points made generally by this article.

The first section of the article will analyze the statute as passed by Congress together with the applicable executive order and CEQ regulations. Court interpretations will be discussed in a later section.

I. NEPA, EXECUTIVE ORDER 11514, AND THE CEQ GUIDELINES

A. Purposes of NEPA

Section 2 of NEPA sets out the purposes of the Act:

To declare a national policy which will encourage productive and enjoy-
able harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.\footnote{7}

The act is divided into two titles;\footnote{8} the first entitled “Declaration of National Environmental Policy” and the second entitled “Council on Environmental Quality.”

**B. Title One**

Title I both establishes broad policy goals which are intended to set a tenor and a style for governmental activity, and imposes specific obligations on all federal agencies. It will be helpful for analysis to separate the specific “action-forcing” requirements of the Title from the broader statements which may or may not create enforceable agency obligations and individual rights.\footnote{9}

**1. Broad Policy Statements**

NEPA begins with a subsection which declares a general Congressional concern for the complex interdependencies of natural and human life, and an expectation that federal agencies will take into account such interdependencies before engaging in any activity. The goal of this agency forethought is to restore and maintain environmental quality\footnote{10} since there is a direct relation between that quality and “the overall welfare and development of man.”\footnote{11}

Accordingly, the section states:

[T]hat it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.\footnote{12}

This policy is not focused exclusively on environmental factors, since other goals such as social and economic well-being are also recognized as important to the general welfare.\footnote{13} Thus, the continuing responsibility of Federal agencies to carry out NEPA's broad policies is tempered by the requirement that agency actions be “consistent with other essential considerations of national policy.” Federal agencies need only “use all practicable means” to achieve NEPA's ends.\footnote{14}
More specific enunciation of Congress' broad environmental goals is offered in subsection 101 (b):

1. [To] [f]ulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. [To] [a]ssure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;
3. [To] [a]ttain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. [To] [p]reserve important historical, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
5. [To] [a]chieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
6. [To] [e]nhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.\textsuperscript{15}

This listing of goals touches upon many factors and themes, but can be capsulized as an expression of an almost utopian hope to establish conditions in which the material, spiritual and cultural needs of the living will be satisfied as fully as possible, while maximizing environmental quality and preserving the nation's cultural heritage for the benefit of present and future generations.

Notably, through NEPA: "The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment."\textsuperscript{16} In addition to individual agency effort, Congress also hoped to encourage cooperation between various components of state, national, and international organizations by asserting that:

The Congress authorizes and directs that, to the fullest extent possible: . . . (2) all agencies of the Federal Government shall—. . .

(E) Recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(F) Make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment.\textsuperscript{17}

Finally, Congress attempted to alter the attitude and posture of
the federal government and its components toward environmental preservation:

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter, and (2) all agencies of the Federal Government shall —

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man’s environment; . . . .

(D) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources; . . . .

(G) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(H) assist the Council on Environmental Quality . . . .


NEPA’s broad policy declarations provide the background for specific action-forcing procedural requirements which have had a dramatic and substantial impact on federal agency decision-making. The most significant of these provisions is § 102(2)(C), which establishes the requirement for an environmental impact statement:

All agencies of the Federal Government shall—. . . . (C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on —

(i) The environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statements and the comments and views of the appropriate Federal, State and local agencies,
which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public . . . . and shall accompany the proposal through the existing agency review processes. . . .

The requirement for an environmental impact statement is not the only action-forcing provision. Subsection (B) states that federal agencies shall

identify and develop methods and procedures, in consultation with the Council on Environmental Quality . . . which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations.

NEPA also required an immediate review of

present statutory authority, administrative regulations, and current policies and procedures for the purpose of determining whether there are any deficiencies or inconsistencies therein which prohibit full compliance with the purposes and provisions of [NEPA]. . . .

and required that by July 1, 1971 the President be apprised of "such measures as may be necessary to bring their authority and policies into conformity with the intent, purposes, and procedures" of NEPA.

3. Expansion of Functions

Title I also includes provisions which make it clear that NEPA is to be interpreted as an addition to the functions and duties of all parts of the federal government, and not as a substitute for existing obligations. NEPA states that its provisions will not

in any way affect the specific statutory obligations of any Federal agency (1) to comply with criteria and standards of environmental quality, (2) to coordinate or consult with any other Federal or State agency, or (3) to act, or refrain from acting, contingent upon the recommendations or certification of any other Federal or State agency.

The Act goes on, in a later section, to state explicitly that the "policies and goals set forth in this chapter are supplementary to those set forth in existing authorizations of Federal agencies."

C. Title II

The second part of NEPA establishes the Council on Environmental Quality and defines its membership and duties. Besides assisting in the preparation of the annual Environmental Quality
Report, CEQ is to monitor "conditions and trends in the quality of the environment", and "analyze and interpret" its findings to determine "whether such conditions and trends are interfering, or are likely to interfere, with the achievement of the policy . . . [of NEPA]." CEQ also is authorized to develop national environmental policies and goals, and gather and assess various kinds of relevant environmental data. Most important from the viewpoint of federal agencies, CEQ is given an oversight role with regard to NEPA's implementation since it is empowered to review and appraise the various programs and activities of the Federal Government in the light of the policy set forth in . . . [NEPA] for the purpose of determining the extent to which such programs and activities are contributing to the achievement of such policy, and to make recommendations to the President with respect thereto.

D. Executive Order 11514

Executive Order 11514, issued March 5, 1970, is the key document specifying the duties of the Council on Environmental Quality regarding environmental impact statements and its interrelationship with other government agencies whose actions are affected by NEPA. The Order directs CEQ to perform many functions, including evaluation of existing and proposed activities and public education programs relating to the environment. Most significantly, the Order authorizes CEQ to

(h) Issue guidelines to Federal agencies for the preparation of detailed statements on proposals for legislation and other Federal actions affecting the environment, as required by section 102(2)(C) of the Act.

(i) Issue such other instructions to agencies, and request such reports and other information from them, as may be required to carry out the Council's responsibilities under the Act.

It is under this authority that CEQ Guidelines and recommendations for NEPA's implementations have been promulgated.

E. CEQ Guidelines

Under the authority granted it by the President through Executive Order 11514, CEQ has promulgated four sets of guidelines for federal agencies to use as a basis for promulgating their own regulations implementing NEPA. Interim guidelines were published in May, 1970 and were replaced by guidelines dated April 23, 1971. In May, 1972, a memorandum for agencies was published. The guidelines currently in force were promulgated on August 1, 1973.
The new guidelines apply to all environmental impact statements (EIS's) prepared after January 28, 1974. It should be noted that federal courts have generally stated that the Guidelines are advisory rather than mandatory, since CEQ has no statutory authority to promulgate them. However, courts have used the guidelines to determine a reasonable approach to an issue raised by NEPA and have required compliance where the guidelines have been adopted by agencies as their own.

1. The First Permanent Guidelines

Although now officially superseded, it will be useful to consider the April 23, 1971 guidelines in detail, since they have been the operating guide during much of the life of NEPA, and since many of their procedures were incorporated into the present guidelines.

The guidelines established the basic structure of the environmental impact statement requirement for federal agencies. First, the guidelines make it clear that “all agencies of the Federal government” must comply with NEPA requirements. However, in a specific instance an agency may be freed of the duty to file a particular EIS otherwise required if “existing law applicable to the agency’s operations expressly prohibits or makes compliance impossible.”

Not only are all agencies included in the requirement, but “[a]s early as possible and in all cases prior to agency decision concerning major action or recommendation . . . that significantly affects the environment, Federal agencies will . . . assess in detail the potential environmental impact . . . .” To carry out this requirement, each agency was required to draft formal procedures for compliance with NEPA. The agency regulations must cover such aspects of compliance as identifying agency action which will require an EIS; consultation and review process for drafting and revising the EIS; designation of officials responsible for drafting the EIS; and a procedure for “timely public information on federal plans and programs with environmental impact.”

The guidelines attempt a detailed analysis of what is “a major federal action significantly affecting the quality of human environment.” “Actions” include:

(i) Recommendations or favorable reports relating to legislation including that for appropriations . . .

(ii) Projects and continuing activities: directly undertaken by Federal agencies; supported in whole or part through Federal contracts, grants, subsidies, loans or other forms of funding assistance; involving a Federal lease, permit, license, certificate or other entitlement for use;
According to the 1971 CEQ guidelines, the phrase "major federal action significantly affecting the quality of the human environment" is to be treated expansively in federal agency regulations implementing NEPA, and is to include a maximum number of situations. Thus, "the overall, cumulative impact of the action proposed" is to be considered, and even if the effect is only "localized" it may still require an EIS "if there is potential that the environment may be significantly affected."52

The cumulative impact of a series of actions must be considered, even if the actions are not exclusively taken by one agency,53 and an EIS prepared whenever there is a cumulatively significant impact.54 To determine whether there is a sufficient cumulative impact, the agency should include in its consideration federal actions begun prior to the passage of NEPA.55 However, if the basic program cannot be reviewed, the agency should consider at least the effects of program increments occurring after NEPA's effective date.56 And, in all cases where the government action "is likely to be highly controversial" an EIS should be prepared.57

The EIS must consider the proposed agency action in light of the widest possible "range of aspects of the environment."58 and must recognize "both beneficial and detrimental effects, even if, on balance, the agency believes that the effect will be beneficial."59 Detrimental effects are to be defined broadly in federal agency regulations to include "both those that directly affect human beings and those that indirectly affect human beings through adverse effects on the environment."60 These effects could include degradation of environmental quality, loss of some beneficial uses of the environment61 and actions that "serve short-term, to the disadvantage of long-term, environmental goals."62

The 1971 CEQ guidelines specified that each federal agency's EIS's shall include a description of the proposed action in sufficient detail to allow others to assess the likely environmental impact.63 Furthermore, each EIS must set forth the agency's analysis of the probable environmental impact of the proposed action, including both primary and secondary impacts.64 The CEQ guidelines specifically mentioned that "the implications, if any, . . . for population distribution or concentration"65 and "the effect of any possible change in population patterns upon the resource base"66 should be discussed in agency EIS's. Unavoidable adverse effects on the environment, moreover, had to be specified.67
The EIS must discuss "[a]lternatives to the proposed action" so as to provide "[a] rigorous exploration and objective evaluation of alternative actions . . ." and prevent foreclosure of preferable options.68 It must also discuss "[t]he relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity."69 As a related concern the EIS must specify "[a]ny irreversible and irretrievable commitments of resources" which might result from implementation of the proposal.70

Finally, the EIS must discuss "problems and objections" raised by "Federal, State and local agencies and by private organizations and individuals" in connection with their examination of draft EIS's which are to be circulated to them for comment.71 To enable such comments to be meaningful, the guidelines required that a draft EIS be written and circulated as soon as a draft statement could be prepared which would provide an adequate foundation for comment.72 To facilitate circulation of draft EIS's, the guidelines suggested a list of agencies to be consulted for specific impacts.73 To ensure that the review process was effectual, the agency proposing action was directed by the guidelines to establish minimum periods of at least 30 days for comments from other agencies.74 Further, the regulations stated:

To the maximum extent practicable no administrative action . . . is to be taken sooner than ninety (90) days after a draft environmental statement has been circulated for comment . . . [N]either should such administrative action be taken sooner than thirty (30) days after the final text of an environmental statement . . . has been made available . . . .75

Where legislative proposals are involved, the EIS must have been made available during consideration of the legislation.76

Finally, the regulations emphasized that public involvement and input into federal decision-making should be expanded to the maximum possible.77 Public hearings were recommended whenever appropriate.78

2. The May, 1972 Recommendations

The May, 1972 Memorandum was a supplementary group of "Recommendations for Improving Agency NEPA Procedures."79 It was intended to answer specific questions which had arisen under the 1971 Guidelines as they were applied to a broad range of actions.

The first CEQ recommendation was that "[a]gencies should
develop a list of the full range of impacts likely to be involved in the typical types of actions they undertake." This list would include secondary as well as primary impacts, and would assist in the determination of whether a major action with a significant impact was involved.

The recommendations also emphasized that "the range of impacts cannot be limited to the traditional area of agency involvement or expertise." Rather, the agency must consider impacts and problems beyond its ordinary area of operation, and, indeed, must even consider reasonable program alternatives which it cannot carry out under present authorization.

The Memorandum also clarifies the obligation of agencies to balance advantages and disadvantages of proposed actions, especially where non-environmental factors enter the balance. The non-environmental factors must be mentioned and briefly discussed in the EIS.

Related to this balancing problem is the problem of balancing opposing views of the proposed action and its results. The Memorandum makes clear that "responsible views", from whatever source, should be acknowledged and discussed in the EIS. To assure full compliance, "all substantive comments received on the draft should be attached to the final statement, whether or not each such comment is thought to merit individual discussion . . ."

The Memorandum also makes clear that when discussing alternatives to a specific action, an agency should consider "the alternative of no action."

The recommendations deal with several important procedural points as well. Each agency was expected to develop "an appropriate early notice system" to inform other agencies and the public of its plans to draft an EIS. More specifically, each agency was to adopt measures to assure that draft EIS's were publicized and made available early in the review process so as to allow maximum time for analysis and reply by interested agencies and individuals. The Memorandum noted that each EIS should clearly indicate the source and availability of the factual statements and findings relied upon by the agency in the EIS so that such agency information would be open to the criticism of outside commentators.

The CEQ recommendations also defined more clearly the concept of a "lead agency" first introduced in the 1971 guidelines to deal with situations where several agencies are involved in a project. The purpose of designating a "lead agency" is to allow a given EIS to be written under the direction of a single agency which fully
evaluates all the environmental effects of a project executed by two or more agencies. However, if it seems more efficient to draft a joint statement, agencies may elect to do so as long as the resultant EIS meets the required standards.91

Finally, in many instances an agency develops a series of individual projects which are really part of one program. Here, CEQ recommended that a general program EIS be drafted if it will serve a useful purpose. But particular impacts of individual projects also should be detailed in a separate EIS “in order to complete the analysis.”92

3. The Present Guidelines

The guidelines now in effect were issued in August, 1973 and cover all draft and final EIS’s filed with the CEQ after January 28, 1974.93 Most of the principles and basic procedural framework established by the earlier guidelines have been incorporated into the current version. However, the new guidelines exhibit greater precision and clarity of purpose. For example, under present procedures, it is clear that environmental considerations are to be treated as co-equal with other, more traditional ones: “initial assessments of the environmental impacts of proposed action should be undertaken concurrently with initial technical and economic studies ....”94

The EIS review process is also more precisely shaped to provide a forum for the discussion of alternatives to the proposed action: “In particular, agencies should use the environmental impact statement process to explore alternative actions that will avoid or minimize adverse impacts ....”95

The guidelines make clear that NEPA has made environmental protection part of the raison d’etre of every federal agency: “[e]ach agency shall interpret the provisions of the Act as a supplement to its existing authority and as a mandate to view traditional policies and missions in the light of the Act’s national environmental objectives.”96 However, the present guidelines go on to recognize that in exceptional cases agency authorizing legislation could “expressly prohibit or make compliance [with NEPA] impossible.”

As before, there is a definition of “major federal actions significantly affecting the quality of the human environment.” The words “major” and “significant” are expressly defined as setting “thresholds of importance and impact that must be met before a statement is required.”97 “Federal” denotes a sufficient level of “control” and “responsibility” for the action on the part of the federal actor.98

The new guidelines more explicitly define the obligation to draft
broad program statements. They are to be developed "to assess the environmental effects of a number of individual actions on a given geographic area . . . or environmental impacts that are generic or common to a series of agency actions . . . or the overall impact of a large-scale program or chain of contemplated projects . . . ."

Where appropriate, additional statements are required for individual segments of the program if their environmental aspects have not yet been previously analyzed in full. Furthermore, "[a]gencies engaging in major technological research and development programs should develop procedures for periodic evaluation to determine when a program statement is required for such programs." To satisfy this requirement the agency should take into account "the magnitude of Federal investment in the program, the likelihood of widespread application of the technology, the degree of environmental impact which would occur if the technology were widely applied, and the extent to which continued investment in the new technology is likely to restrict future alternatives."

The appropriate time for preparing such a program statement can be very difficult to determine. Therefore, the regulations attempt to provide guidance:

Statements must be written late enough in the development process to contain meaningful information, but early enough so that this information can practically serve as an input on the decision-making process. . . . In any case, a statement must be prepared before research activities have reached a stage of investment or commitment to implementation likely to determine subsequent development or restrict later alternatives.

If at any stage in development of a program a decision is made to defer preparation of a program EIS or not to prepare a program EIS at all, an "evaluation" must be written to justify the decision:

"[T]he agency should prepare an evaluation briefly setting forth the reasons for its determination that a statement is not yet necessary. This evaluation should be periodically updated, particularly when significant new information becomes available concerning the potential environmental impact of the program."

The appropriate scope of such a program statement can be difficult to determine. The guidance offered in the guidelines is general, but clearly demonstrates an intention to stimulate thorough studies of alternative actions involving as many agencies or other sources of input as possible. Thus, the guidelines call for "an analysis not only of alternative forms of the same technology that might reduce
any adverse environmental impacts but also of *alternative technologies that would serve the same function* as the technology under consideration" [emphasis added].

The guidelines recommend that federal agencies and interested groups with "relevant expertise in the preparation of such statements" be involved in the EIS preparation process. Additionally, "a systematic interdisciplinary approach" is called for, to integrate natural and social sciences and environmental design into the planning process.

A problem resulting from the enormous output of EIS's under NEPA has been the inability of outside organizations and other federal agencies to keep track of all the programs and projects of an agency which might affect the environment. In an attempt to meet NEPA's policy of full disclosure and input from all sources, the guidelines require the establishment of "an appropriate early notice system for informing the public." To effectuate the notice system, all agencies are required to "(1) maintain a list of administrative actions for which environmental statements are being prepared; (2) revise the list at regular intervals . . . (but not less than quarterly) . . . ; and (3) make the list available for public inspection upon request."

Since a copy of the list will be sent to CEQ, further public dissemination will be guaranteed by regular publication in the Federal Register.

The 1973 guidelines are more detailed concerning the contents of an EIS, and recognize for the first time the concept of a "negative determination" i.e., a written explanation of a decision not to prepare an EIS for a given action.

The draft EIS is the key document in the EIS process, since it is written early in the agency’s decision-making process, and accompanies a proposal through the review process. Recognizing this importance, the guidelines require that "[t]he draft statement must fulfill and satisfy to the fullest extent possible at the time the draft is prepared the requirements established for final statements . . ." Since the drafts, like the final EIS's, have utility largely as an aid in the agency decision-making process, they "are to serve as the means of assessing the environmental impact of proposed agency actions, rather than as a justification for decisions already made."

Two other preliminary questions concerning the procedure for EIS preparation are dealt with in the guidelines. First, the question of how NEPA requirements should be met when several agencies are
involved in a single project is explained in more detail. Either a lead agency statement or a joint statement is acceptable, provided the EIS meets all standards for content and timing.\textsuperscript{115} The possibility is left open for each agency to prepare its own EIS on the project, however, where that procedure seems best suited to satisfy the requirements of NEPA.\textsuperscript{116} Second, the guidelines deal with the question of preparation of an EIS by an outsider rather than the agency responsible for the action: "In all cases, the agency should make its own evaluation of the environmental issues and take responsibility for the scope and content of draft and final environmental statements." [emphasis added]\textsuperscript{117} This guideline is ambiguous concerning the propriety of an outside contractor or even an applicant for federal permission or assistance preparing an EIS which is merely evaluated and adopted by the responsible agency. Courts have split on this issue, and it remains an unsettled area of the law.\textsuperscript{118}

The requisite contents of an EIS have been clarified and expanded by the new CEQ guidelines. Eight components are to be included in the statement in "a form easily understood, both by members of the public and by public decisionmakers."

(1) A description of the proposed action, a statement of its purposes, and a description of the environment affected . . . adequate to permit an assessment of projected environmental impact . . . . The statement should also succinctly describe the environment of the area affected as it exists prior to the proposed action . . . .\textsuperscript{120}

Under this section, agencies must present an analysis of "interrelationships and cumulative environmental impacts of the proposed action and other related Federal projects . . . ."\textsuperscript{121} In addition, they must discuss "population and growth characteristics of the affected area" and explain their assumptions concerning likely impacts of the project on population growth.\textsuperscript{122} To standardize assumptions, specific growth projection projects should be consulted.\textsuperscript{123}

(2) The relationship of the proposed action to land use plans, policies, and controls for the affected area.\textsuperscript{124}

Included in this analysis, among other things, would be the impact of the proposal on strategies developed under the Clear Air Act and Federal Water Pollution Control Act.\textsuperscript{125}

(3) The probable impact of the proposed action on the environment. (i) This requires agencies to assess positive and negative effects . . . . as [they affect] both the national and international environment. (ii) Secondary or indirect, as well as primary or direct, consequences for the environment . . . .\textsuperscript{126}
This requirement, although pivotal to an effective EIS, can be particularly difficult to fulfill. Secondary environmental effects include, for instance, "associated investments and changed patterns of social and economic activities"\(^{127}\) and thus can include a wide range of relatively remote consequences. The guidelines describe as secondary those "impacts on existing community facilities and activities, . . . inducing new facilities and activities, . . . [and] changes in natural conditions . . ."\(^{128}\) and recognize that these effects "may often be even more substantial than the primary effects of the original action itself."\(^{129}\)

(4) **Alternatives to the proposed action, including, where relevant, those not within the existing authority of the responsible agency.**\(^{130}\)

Among the alternatives to be considered are "the alternative of taking no action or of postponing action"\(^{131}\) as well as that of substituting different projects.

(5) **Any probable adverse environmental effects which cannot be avoided . . .**\(^{132}\)

These effects could be on air or water quality, wildlife, land use patterns, urban congestion, health threats and so on.

(6) **The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.**\(^{133}\)

This section requires a discussion of trade-offs, focusing particularly on the impact of the proposal on various future options.

(7) **Any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented.**\(^{134}\)

(8) **An indication of what other interests and considerations of Federal policy are thought to offset the adverse environmental effects of the proposed action . . .**\(^{135}\)

These sections would require discussions, for example, of the need for economic development as another policy influencing Federal decision-making.\(^{136}\) Where cost/benefit analyses have been made by the agency, they should be included in the EIS with an explanation of the weight given environmental costs which are not quantified.\(^{137}\)

The review process for the draft EIS is also more completely delineated in the new guidelines. Review opportunities should be available for other Federal agencies, the Environmental Protection Agency, State agencies, local agencies and the public.\(^{138}\) Federal and
joint Federal-state agencies are listed in an appendix to the guidelines for consultation during the draft EIS stage when specific environmental problems are involved. The Environmental Protection Agency is empowered by law to comment on the environmental impact of agency actions affecting air or water quality, noise abatement, pesticides, solid waste disposal, radiation and other environmental factors. State and local agencies are to be consulted whenever appropriate. Finally, public participation in the review process is to be encouraged and assisted as much as practicable. All outside reviewers of agency EIS's are to be given at least 45 days to comment. The Council on Environmental Quality must receive copies of all EIS's prepared in draft or final form.

After this review process, the final EIS is drafted. The final EIS should discuss "all major points of view on the environmental effects of the proposed action and its alternatives" and shape its discussions to consider "any responsible opposing view" to its decisions and analysis. To facilitate the consideration, "all substantive comments" should be made part of the final statement. As before, no administrative action should be undertaken within 90 days after circulation of the draft EIS, or within 30 days after completion of the final EIS.

II. JUDICIAL INTERPRETATION OF NEPA

While NEPA itself and the CEQ guidelines have provided a substantial guide for agency behavior, there are many ambiguities and problem areas remaining. As a result, federal courts have been involved in a detailed case-by-case consideration of virtually all aspects of the preparation and adequacy of environmental impact statements. Therefore, it is necessary to supplement and explain the duties of federal agencies under NEPA by an analysis of court decisions involving the Act, which now number almost five hundred in just five years.

The voluminous judicial interpretation of NEPA has focused almost exclusively on the EIS procedural requirement. Accordingly, the discussion of judicial opinions that follows will have a similar focus, even though NEPA imposes other important but less litigated duties. To facilitate analysis, we shall consider the court decisions under several headings. This part of the article will first analyze court treatment of threshold problems for application of NEPA's EIS requirement, including: what constitutes a "Major federal action significantly affecting the quality of the human environment"; and, at what point in relation to a federal action must an EIS be
It is important to note that these threshold issues have relevance only for NEPA's impact statement procedures. NEPA's other requirements are not similarly limited in their application. Second, we will consider the adequacy of the EIS: was it prepared by the responsible federal official; does it contain all the elements required by NEPA and the guidelines; does it properly discuss alternatives; and does it fully reveal the environmental issues for the federal decision-makers and the public. Thirdly, we will consider whether NEPA imposes substantive duties on federal agencies to proceed only with environmentally sound projects or projects which are socially justifiable in spite of their environmental consequences.

A. Threshold Issues

1. What is a major federal action significantly affecting the quality of the human environment?

The problem of defining the events that trigger NEPA's requirement that an impact statement be prepared has been presented to federal courts in many guises; those courts have observed that this threshold question is composed of several sub-issues.

Thus, there are cases which analyze what is a "federal" action, what is a "major" action, what "significantly affects the quality of the environment" and what is meant by the quality of the "human environment."

a) Federal action.

Any construction or other program which is directly carried out by a federal agency is clearly a federal action. Moreover, the concept of a federal action has been broadly defined by courts in accordance with the CEQ guidelines, and usually any substantial federal connection with the project is sufficient to bring it under NEPA's coverage. The requisite extent of federal action is less clear, however, when the federal agency is not directly carrying out a project, but is only supplying funding for a project, offering only partial funding for planning or other preliminary purposes, or merely licensing a private or state activity.

Thus, in Hiram Clark Civic Club v. Lynn, the Fifth Circuit Court of Appeals, while finding that a HUD decision not to prepare an EIS was valid, accepted the argument that HUD's mortgage insurance program constituted federal action.

In Ely v. Velde, the Fourth Circuit Court of Appeals found that the use of funds by the State of Virginia which had been granted as a "no-strings" block grant by the Law Enforcement Assistance
Administration (LEAA) constituted a federal action which subjected LEAA to the duty to prepare an EIS. However, the court concluded that if the state made no use of the granted funds and refunded them to the Federal Government, the project would not irrevocably be considered federal: "While the center itself is not branded as federal, the LEAA funds allocated for its construction were impressed with a commitment to preserve the environment . . ." 110

In Davis v. Morton, 160 the 10th Circuit Court of Appeals held that a lease of land on an Indian reservation was federal action even though no federal agency was a party to it, since the Department of Interior's Bureau of Indian Affairs was required to approve the lease prior to its execution. The decision rejected the District Court's conclusion that no federal action was possible unless there is federal initiation of, participation in or benefit from a project. 181 Along the same lines are cases holding license decisions by agencies such as the Atomic Energy Commission to be federal actions, even though no federal funds are used for the projects. 182 Thus, federal regulation of the subject area and granting of permission seems, under some circumstances, sufficient to make an action physically executed by non-federal parties "federal" for purposes of NEPA.

Perhaps the best way to determine the amount of federal contact necessary to create a federal action is to consider that handful of cases in which an action was not considered federal. The most surprising case, since it appears to conflict with other authority is City of Boston v. Volpe. 183 There, the First Circuit held that construction of an airport runway at Boston's Logan Airport was not a federal project. The court reached this conclusion because at the time of the suit the state authority constructing the runway had only applied for federal assistance and had not received any federal commitment for funding. Indeed, prior to this litigation the FAA had specifically withheld approval of the project for federal funding because the port authority's proposed negative declaration did not satisfy NEPA, and the proposed runway would violate non-NEPA environmental standards.

The court was not persuaded by the argument that the runway involved was a stage of an expansion project, other parts of which were federally funded:

We do not accept the general proposition that once the federal government has participated in a development, that development is necessarily forever federal. Many projects have federal assistance at an explora-
tory stage and are then completed through wholly local or state fund-
ing.164

Further:

Nor does the Port Authority's present intention eventually to seek federal funds for yet another stretch of taxiway make the Outer Taxiway a federal project. Similarly, the adoption of certain federal standards and specifications in the hope of qualifying for federal assistance cannot transform a state or local project into a federal one.165

That the decision is aberrant can be seen from the other cases finding no federal action. In *Kitchen v. FCC*168 the District of Co-

lumbia Circuit Court found that the construction of a local telephone exchange building financed exclusively by the telephone company was not a federal action. The court was persuaded that the project was not federal partially because the state public utilities commission had considered the environmental issues raised in the federal case.167

In *Highland Park v. Train*,168 plaintiffs attempted to block con-

struction of a large shopping center along a highway undergoing improvement. Among other things, they argued that NEPA had not been complied with. The court, however, found that

... no federal funds have been used, approved, or applied for, and that the state has not even "programmed" the project as an undertaking eligible for federal funds allocated to the state. ... The only conceiva-

ble relevant federal contact ... has been designation of a two-mile and adjacent 1/2 mile portion of the highway as parts of the Federal Aid Secondary System in 1941 and 1958, respectively, long before the present expansion plans were considered.169

Given this very tenuous connection to federal programs, the court found that there was no federal action involved.

In *Indian Lookout Alliance v. Volpe*,170 the court found federal action but expressed its feeling that federal involvement could be so minor, either because a project was at a stage too preliminary to request federal aid, or was too removed from a project receiving federal aid, that no federal action would be involved.171 A good ex-

ample of that principle is *Bradford Township v. Illinois Highway Authority*,172 in which a state highway was found not federal al-

though other parts of the system had been built with federal aid.

Another case finding no federal action is *Biderman v. Morton*.173 In *Biderman*, plaintiff attempted to block local government land use permissions on the parts of Fire Island, New York, which had not been acquired by the federal government for the Fire Island
National Seashore. While very sympathetic to the plaintiffs, the court found that the municipal land use decisions within their respective jurisdictions (as expressly allowed under the Fire Island National Seashore Act) were not subject to NEPA requirements:

To be sure, it is well settled that non-federal parties may be enjoined, pending completion of an EIS, where those non-federal entities have entered into a partnership or joint venture with the Federal Government, and are thus recipients of federal funding. [cites omitted] ... In this case, however, there is no contention that the municipal defendants solicited federal aid in any way and, indeed, it is the very lack of cooperative effort between the federal and municipal defendants which has so rankled appellants.

Nor is this a case in which non-federal action cannot lawfully begin or continue without the prior approval of a federal agency.

The only link the plaintiffs could offer to show federal action was that the Secretary of the Interior was authorized to purchase land on Fire Island which he felt to be zoned inconsistently with the goals of Fire Island National Seashore.

Another recent highway case finding no federal action is Citizens for a Balanced Environment v. Volpe. This case seems aberrant since it found that one segment of a highway was not "federal" even though federal funds had been used to build a small section, the state had acted to keep the project eligible for federal funding, the road directly tied into a highway segment which had previously been enjoined as a federal project, and it was part of a federal highway subject to a court order that an overall EIS be drafted. A final case finding no federal action is Proetta v. Dent. In Proetta, residents of an area being cleared by the City of New York attempted to enjoin the destruction of their homes on the theory that New York was clearing the area to help a business with a federal loan to expand its plant. The court found that since New York City was using its own funds and that the federal loan would only be made available at a later stage in the project, there was no federal action to enjoin. The court emphasized in its decision that: "... if the project site is not cleared by the deadline ... appellee [company] has indicated that it will not continue with its expansion but will indeed leave Brooklyn, with the City losing hundreds of jobs accordingly." Thus, the court seemed more interested in saving the jobs for New York City than in considering whether a federal action was involved.

The very paucity of the cases finding no federal action, and the minimal federal contacts in most of them, show that as a general
rule the threshold determination that an action is or is not federal
is not a difficult one to make.

b) Major action significantly affecting the environment.

An analysis of this concept is somewhat difficult to conduct since
it has been treated so differently by different courts. Since conceptually it is possible to have a major action which has no significant
environmental effect and, conversely, it is possible to have a non-
major action with significant effect, some courts have treated this
issue as containing two separate threshold elements; i.e. "major
action" and "action significantly affecting the environment." Other courts have treated the statutory phrase as imposing one
standard, reasoning that the expansive purpose of NEPA counsels
that any act with a significant effect must be a major one, and vice versa.

Regardless of this disagreement, however, courts have tended to
find "major actions significantly affecting the environment" whenever federal activities are involved. For example, river channelling
and dam construction activities of the U.S. Army Corps of Engineers are clearly major actions significantly affecting the environment, as are decisions to grant Atomic Energy Commission licenses and to revoke government contracts to purchase helium from
private producers.

Perhaps the most recent analysis of this threshold issue is found in Minnesota Public Interest Research Group (MPIRG) v. Butz, decided on June 10, 1974. MPIRG deals with U.S. Dept. of Agriculture Forest Service logging contracts in the Boundary Waters Canoe area of Minnesota. The court, at the outset of its analysis, recognized that:

The threshold question as to whether there is a major federal action
... is not presented in the majority of cases; there is little question that
when the federal government commits millions of dollars to build dams,
nuclear power plants or highways there is a major federal action.

However, in MPIRG the question was whether either the Forest Service's pre-NEPA extension and modification of contracts or their post-NEPA administrative actions to carry out those contracts constituted major federal action significantly affecting the environment.

The Forest Service argued that its actions:

... must be isolated from the subsequent impact on the environment
from logging operations. They assert that the statutory phrase... cre-
ates two tests. First, it must be determined whether there is a major federal action; next, if there is a major action, the impact of that action on the environment must be determined.\textsuperscript{180}

The court rejected this line of argument:

To separate the consideration of the magnitude of federal action from its impact on the environment does little to foster the purposes of the Act . . . By bifurcating the statutory language, it would be possible to speak of a "minor federal action significantly affecting the quality of the human environment," and to hold NEPA inapplicable to such an action. Yet if the action has a significant effect, it is the intent of NEPA that it should be the subject of the detailed consideration mandated by NEPA; the activities of federal agencies cannot be isolated from their impact upon the environment.\textsuperscript{181}

Thus, for the court, there is but one test, which provides that any significant impact on the environment will trigger NEPA coverage and create obligations for the federal actor.

Many courts have adopted the double test, however. In a leading case, \textit{Hanly v. Kleindienst},\textsuperscript{182} which was twice decided by the Second Circuit Court of Appeals, all parties conceded that a major federal activity was involved.\textsuperscript{183} However, the court stated that:

[We are faced with the fact that almost every major federal action, no matter how limited in scope, has some adverse effect on the human environment. It is equally clear that an action which is environmentally important to one neighborhood may be of no consequence to another. Congress could have decided that every major federal action must therefore be the subject of a detailed impact statement . . . By adding the word "significantly," however, it demonstrated that before the agency in charge triggered that procedure, it should conclude that a greater environmental impact would result than from "any major federal action."\textsuperscript{184}

The court proposed two factors to be considered in determining if a significant effect will occur:

1. the extent to which the action will cause adverse environmental effects in excess of those created by existing uses in the area affected by it, and
2. the absolute quantitative adverse environmental effects of the action itself, including the cumulative harm that results from its contribution to existing adverse conditions or uses in the affected area.\textsuperscript{185}

Under this multi-faceted test, it would be possible for a major action to occur which does not trigger NEPA procedures, either because it has no great quantitative environmental effect or does not create adverse effects greater than other activities in the area.
As applied to the facts of its case, the court held that constructing a nine-story federal office building would not require an EIS, since the building would be located in an area already occupied by other, similar buildings. However, the court observed that its twin building, which would house a jail, might require an EIS because of the potential impact of the jail on the neighborhood crime rate and various other social and psychological factors.

A third attempt to divine the statutory threshold, also utilizing a two-part analysis, was made in *Citizens Organized to Defend the Environment (CODE) v. Volpe*. The court separated “major” from “significant” by stating that a “major federal action” is one that requires substantial planning, time, resources or expenditure. On the other hand,

A federal action “significantly affecting the quality of the human environment” is one that has an important or meaningful effect, directly or indirectly, upon any of the many facets of man’s environment. The phrase must be broadly construed to give effect to the purposes of NEPA. A ripple begun in one small corner of an environment may become a wave threatening the quality of the total environment. Although the thread may appear fragile, if the actual environmental impact is significant, it must be considered.

Since these definitions are amorphous, it will be useful, in an attempt to demarcate the line at which NEPA’s EIS requirement comes into play, to analyze the cases in which a “major action significantly affecting the environment” was found not to exist. In *CODE v. Volpe*, the court held that the transportation of coal strip mining equipment upon an Interstate highway was not a major action significantly affecting the environment, because no damage would occur to the highway and the contractual right to move the equipment was created long before the passage of NEPA.

In *Virginians for Dulles v. Volpe*, a federal court found that the decision to allow a larger version of the Boeing 727 jet to provide service from Washington National Airport was not a major federal action significantly affecting the environment. The jet, though carrying more passengers, was “quieter, safer and rarely if ever loaded to a gross maximum weight greater than that of the [plane it replaced].”

In *Kisner v. Butz*, the court ruled that construction of a 4.3 mile segment of a one-lane gravel road in a national forest was not a major federal action. The proposed road would have connected two 30-year-old segments of road and would have added only 4.3 miles
of road to over 700 miles of roads already existing in the national forest.205

In another road case,206 a court found no major action where a road merely was being widened to eliminate a bottleneck; only small parcels of land were being acquired for the right-of-way and less than $300,000 of federal money was to be expended on the project. The court treated major federal action as distinct from an action significantly affecting the environment, but found neither element in the project.207

Three cases concerning housing developments found no major action significantly affecting the quality of the human environment. In Hiram Clark Civic Club v. Lynn,208 a HUD insurance guarantee for a low and moderate income housing development was found not to come under this section of NEPA because no adverse environmental impact had been found in HUD's review of the project. The court did criticize HUD for claiming that only adverse environmental effects would require an EIS, but affirmed the District Court's factual determination that no EIS was required.209 In Wilson v. Lynn,210 the court again divided the issue into the "major" and "significant" components. The court found the project to be a major one, but found that since the project was a rehabilitation project retaining the exterior of existing buildings, there was no significant effect on the environment.211

In Groton v. Laird,212 the third housing case, a similar two-part analysis was used. Again a major project, Navy housing, was held not to meet the significance test. The court seems to have seriously misunderstood the concerns and requirements of NEPA. It concluded that the Navy housing project would have no significant impact because the town had expected housing to be built in the location selected.213 In addition, the court reasoned that "people have to have somewhere to live. There is no question that Groton has a serious housing shortage."214 The fact that an environmental impact may be caused by a non-federal source if the federal agency doesn't act, or that there exists a need for a federal project, definitely should not eliminate the requirement for an EIS.

A few additional cases have based their conclusion of no major significant action on the theory that only adverse environmental effects would be considered significant and major.215 While other grounds might be found for finding no major significant action in these cases, they can all be criticized for looking solely for adverse effects in dealing with the threshold question.

A final interesting case to consider is First National Bank of
Homestead v. Watson. In Watson, plaintiff claimed that a major significant action occurred when the Comptroller of the Currency granted a license for a new federal bank in South Dade County, Florida, since the bank would probably finance new development which would have an adverse impact on the environment. While agreeing that the action was major, the court held that the impact of a new bank on the development process was too speculative and remote to constitute an environmentally significant action.217

c) The quality of the human environment.

As previously mentioned, the statutory requirement is that there be a "major federal action significantly affecting the quality of the human environment." A few cases have addressed the question of what is meant by the "quality of human environment." In MPIRG v. Butz,218 one defense offered was that there would be an impact on a wild area, but none on the human environment. The court, in rejecting this defense, replied:

We think NEPA is concerned with indirect effects as well as direct effects. There has been increasing recognition that man and all other life on this earth may be significantly affected by actions which on the surface appear insignificant. . . . Apart from what may be referred to as "existence value," the evidence indicated that there are direct effects on the human environment from logging. Logging causes excess nutrient run-off which causes algal growth in the lakes and streams, affecting water purity. Logging roads may cause erosion and water pollution and remain visible for as long as 100 years; this affects the rustic, natural beauty of the [Boundary Waters Canoe Area], recognized as unique by the Forest Service itself. Logging destroys virgin forest, not only for recreational use, but for scientific and educational purposes as well. All these are significant impacts on the human environment. [emphasis in original]220

With such an expansive definition, any effect on any remote area can be considered an effect on the human environment and potentially within the purview of NEPA's EIS requirement.

Three other cases deal with the question of what elements might be included within the meaning of human environment beyond the "normal" ecological ones. In Hanly v. Kleindienst,221 the court recognized that factors affecting the human environment encompassed more than air, water and noise pollution. It required the agency . . . to give attention to other factors that might affect human environment in the area, including the possibility of riots and disturbances in the jail which might expose neighbors to additional noise, the dangers
of crime to which neighbors might be exposed as a consequence of housing an out-patient treatment center in the building, possible traffic and parking problems . . . 222

The Court then quoted their previous decision in this case:

The Act must be construed to include protection of the quality of life for city residents. Noise, traffic, overburdened mass transportation systems, crime, congestion and even the availability of drugs all affect the urban "environment" and are surely results of the profound influences of . . . high-density urbanization [and] industrial expansion. 223

The court expressed reservations about whether psychological or sociological factors should be included in the statutory concept of the human environment. 224 Nevertheless, it proceeded to consider as part of the environment the increase of the risk of crime and safety problems in the neighborhood which would result from construction of a drug treatment center, even though the nature of such considerations is primarily psychological and sociological. 225

In Tierrasanta Community Council v. Richardson, 226 the court went further in finding that the location of a youth prison facility next to a school site would require an EIS. The court stated:

The third assessment [which found that no EIS was necessary] did not adequately consider the psychological and sociological effects of the proposed youth facility on the families residing in the community adjoining the proposed facility, surrounding property values, the character of the adjoining residential neighborhood, or the education of elementary school children attending a school adjacent to the facility. 227

Thus, these two cases seem to broaden the definition of a human environment to include all factors one could describe as of concern to people.

However, Nucleus of Chicago Homeowners (NO-CHA) v. Lynn, 228 sharply departs from this approach. In NO-CHA plaintiffs opposed a federal housing project on the ground that

. . . the social characteristics of the prospective tenants of the housing units will have an adverse impact on the quality of the environment . . . [T]he plaintiffs allege that they are members of the "middle class and/or working class" which emphasizes obedience and respect for lawful authority, has a much lower propensity towards criminal behavior and acts of physical violence, and possesses a high regard for the physical and aesthetic improvement of real and personal property. The plaintiffs further allege that, as a "statistical whole" tenants of public housing possess a higher propensity toward criminal behavior and acts of physical violence, a disregard for the physical and aesthetic mainte-
nance of real and personal property, and a lower commitment to hard work. Therefore, so the plaintiffs insist, the construction of public housing will increase the hazards of criminal acts, physical violence, and aesthetic and economic decline in the immediate vicinity of the sites. The plaintiffs maintain that these factors will have a direct adverse impact upon the physical safety of the plaintiffs residing in close proximity to the sites, together with direct adverse impact upon the aesthetic and economic quality of their lives.229

In the face of this claim, the court decided the relevance of such factors to NEPA:

At the outset, it must be noted that although human beings may be polluters (i.e., may create pollution), they are not themselves pollution (i.e., constitute pollution). Environmental impact in the meaning of the Act cannot be reasonably construed to include a class of persons per se. The provisions of the Act concern actions which harm or affect the environment. Therefore, the social and economic characteristics of the potential occupants of public housing as such, are not decisive in determining whether an impact statement is required under the Act.230

The court appeared hostile to plaintiff's attempt to transform NEPA's procedural requirements into a tool serving purposes akin to those of exclusionary zoning.

2. The timing of the EIS and environmental evaluation under NEPA

The CEQ guidelines are not very explicit concerning the timing for preparation of an EIS, since they merely call for the environmental review process to begin as "early as possible and in all cases prior to agency decision . . ."231 However, the basic policy of NEPA and the guidelines is clear:

Inasmuch as the environmental impact statement was intended to act as a tool in the decision-making process, preparation of such a statement should be completed prior to a final decision to proceed with any given project. Moreover, the statement ideally should be available early enough in the planning of a project so that it can be used to explore alternatives, including the alternative of abandoning the project altogether.232

Although this general policy is clear, it can be extremely difficult to apply to many kinds of activities of federal agencies, especially where portions of these activities have been initiated prior to the passage of NEPA.233 Some general principles have emerged from the cases which are applicable to all activities; others can be analyzed according to the specific kind of federal activity involved.
a) Timing of an EIS for projects begun after the passage of NEPA.

While courts have faced many problems involving complex projects and activities of various kinds, it will be useful to begin this analysis with the simplest case: a single-stage project which was conceived, planned, and is to be carried out after the passage of NEPA. Unfortunately, no such project has been the subject of a definitive court decision. Nevertheless, it is possible to construct the timetable which should be followed for such a hypothetical project.

When a project is a mere idea or possibility, no preparatory work concerning the likely environmental impact is required.234 The time would be too early; the likely analysis too remote. However, when serious consideration of any course of action begins, that consideration must include environmental factors: "Once a project has reached a coherent stage of development, it requires an environmental impact study. The comprehensive review contemplated by the Act can only be efficacious if undertaken as early as possible."235 The environmental review must include all aspects required for the final EIS236 and must proceed simultaneously with any other analyses undertaken.237

By the time serious consideration of the project is underway and physical characteristics are being considered, a draft EIS must be made part of the decision-making record and the factors involved therein must be taken into account by decision-makers.238 The draft EIS must be circulated for comment to CEQ, EPA, other relevant federal, state and local agencies, and the public.239 Adverse comments elicited through this process must be responded to by the acting agency.240 Both the comments elicited and the responses thereto must be included in the final EIS, which, in turn, must be considered by the agency decision-makers prior to their final determination to act.241

b) Timing of an EIS for projects begun prior to the passage of NEPA.

Many cases dealing with timing problems involved projects begun before NEPA's passage. Obviously, in these cases, no EIS could have been produced at the start of the project. However, environmental considerations and analyses, and EIS's, are later required for such projects unless they are so close to completion that no purpose could be served by enforcing such requirements.242

One of the most thorough and carefully considered cases analyzing the application of NEPA's EIS requirement to projects begun
Prior to the passage of NEPA is Sierra Club v. Froehlke, which concerns the Trinity River development program in Texas. The Trinity River program originated as a navigation enhancement project begun with federal assistance around the time of the Civil War, and has been discussed, planned, acted upon, abandoned and resurrected with some frequency during the twentieth century. The specific question facing the court in this instance was whether one of the project's dams, the Wallisville, (for which an EIS had been prepared) could continue under construction, or whether it was such an integral part of the overall project that it could be enjoined pending preparation of an EIS for the overall project on the ground that NEPA applied to the overall project. At the time of the suit, the Wallisville Dam was approximately 87% complete, but represented only 2% of the total estimated $1.4 billion cost for the entire project.

The court found that the entire project required an EIS, and enjoined further construction on the Wallisville segment. First the court considered the question whether applying the requirements of NEPA to either the entire Trinity project, or the Wallisville Dam by itself, would create an impermissible retroactive application of the Act. It observed that "a majority of the better reasoned cases have generally held NEPA applicable to ongoing projects, using a variety of tests." Indeed, "[t]he guidelines of the Council on Environmental Quality would favor applying NEPA in full except in instances in which it is not practicable to reassess the basic course of action."

Even where the basic course of action is set, major increments of additional activities would still be subject to NEPA requirements. The court stated that "a presumption in favor of NEPA's application is proper, particularly where substantial action is yet to be taken, absent equally persuasive contradicting factors."

Applying its analysis to the Trinity project, the court decided that the entire project clearly was subject to NEPA requirements, even though planning had occurred over a long period before NEPA's enactment and the Wallisville Dam was virtually complete.

The decision of the District Court to enjoin construction of the Wallisville Dam was reversed by the Fifth Circuit in Sierra Club v. Callaway. However, Circuit Judge Grooms, author of the court's opinion, did not disapprove the application of NEPA to either the Wallisville Dam or the Trinity project. Rather, he found that the Wallisville Dam was a separate project, with independent validity, a distinct history, and separate funding, and hence should not be
enjoined because of the need for an overall EIS for the Trinity project. The court determined that there was already an acceptable EIS for the Wallisville Dam and that a program EIS for the Trinity project was in preparation.\textsuperscript{252}

A second major decision applying the requirements of NEPA to a project begun prior to its passage is Arlington Coalition \textit{v. Volpe},\textsuperscript{253} which involved an interstate highway segment in Virginia. The construction of the highway had been approved in 1959,\textsuperscript{254} and state acquisition of the land needed for the road had begun in 1966.\textsuperscript{255} At the time of decision, substantial work on the project had already been completed: “in the proposed corridor, 93.9 percent of all dwellings have been acquired; 98.5 percent of all businesses have been acquired; 75.6 percent of all families have been relocated; 84.6 percent of all businesses have been relocated; and 84.4 percent of all necessary right-of-way has been acquired.”\textsuperscript{256} However, actual construction had barely begun; preliminary work on one approach and one culvert were the only physical activities.\textsuperscript{257} The court enjoined all further activities on the highway project until an EIS was drafted, finding that the project was ongoing after the effective date of NEPA, and reasoning that:

Doubtless Congress did not intend that all projects ongoing at the effective date of the Act be subject to the requirements of Section 102. At some stage of progress, the cost of altering or abandoning the project could so definitely outweigh whatever benefits that might accrue therefrom that it might no longer be “possible” to change the project in accordance with Section 102. At some stage, federal action may be so “complete” that applying the Act could be considered a “retroactive” application not intended by Congress. The congressional command that the Act be complied with “to the fullest extent possible” means, we believe, that an ongoing project was intended to be subject to Section 102 until it has reached that stage of completion, and that doubt about whether the critical stage has been reached must be resolved in favor of applicability.\textsuperscript{258}

However, the key factor for the court was the fact that further federal decision points still existed, and that actual construction was not underway:

We cannot, of course, define for all cases the point of completion beyond which section 102(C) [sic] is no longer applicable. We are certain, however, that Arlington I-66 has not yet reached that point: P.S.&E. approval has not yet been given, construction contracts have not been awarded, and actual construction on the highway itself has not begun.\textsuperscript{259}
Not all courts have agreed that projects begun prior to the effective date of NEPA should be required to comply with its requirements. In *Pennsylvania Environmental Council v. Bartlett*, plaintiffs claimed that NEPA applied to a highway relocation project approved by the Department of Transportation in 1969. Construction of the project began in 1970, and was completed before the Circuit Court decision was announced. The court held NEPA inapplicable, because

For all practical purposes, . . . final federal action on the project took place prior to January 1, 1970, the effective date of NEPA . . . . This is not a case where discretionary federal administrative action takes place in stages, and some stages have taken place prior to January 1, 1970 while others remain.

However, *Bartlett* and similar cases seem to reflect the principle that only a nearly completed project will be allowed to proceed without an EIS being prepared. An EIS will be required for parts of the project which are not yet under actual construction.

The question of applicability to pre-NEPA projects will diminish as virtually all such projects are completed or divided into pre- and post-NEPA segments, with compliance required for the latter.

c) Timing of EIS's for research programs.

A landmark case, *Scientists' Institute v. Atomic Energy Commission*, recognized that the AEC was obligated to prepare an EIS for the Liquid Metal Fast Breeder Reactor Program (LMFBR Program). The LMFBR Program is a long-range, expensive and controversial research program designed to develop a new source of electricity for the U.S. It began in the early 1950's with the construction of experimental breeder reactors, and has been continued ever since. The AEC estimated that the total cost to the federal government for development of the reactors would exceed two billion dollars.

The court was presented with two issues for determination: whether the AEC was required to prepare an EIS for the overall research program, and when such a program EIS, if required, should be prepared.

The court found that the research activities constituted a major federal action significantly affecting the quality of the human environment, and thus required a general program impact statement.

We think it plain that at some point in time there should be a detailed statement on the overall LMFBR program. The program comes before
the Congress as a “proposal for legislation” each year, in the form of appropriations requests by the Commission. And as the Council on Environmental Quality has noted in its NEPA Guidelines, the statutory phrase “recommendation or report on proposals for legislation” includes “[r]ecommendations or favorable reports relating to legislation including that for appropriations.” In addition, the program constitutes “major Federal action” within the meaning of the statute. 287

Further, the court explained the need for an EIS in terms of the objectives of NEPA:

NEPA’s objective of controlling the impact of technology on the environment cannot be served by all practicable means . . . unless the statute’s action forcing impact statement process is applied to ongoing federal agency programs aimed at developing new technologies which, when applied, will affect the environment. To wait until a technology attains the stage of complete commercial feasibility before considering the possible adverse environmental effects attendant upon ultimate application of the technology will undoubtedly frustrate meaningful consideration and balancing of environmental costs against economic and other benefits. Modern technological advances typically stem from massive investments in research and development, as is the case here. Technological advances are therefore capital investments and, as such, once brought to a stage of commercial feasibility the investment in their development acts to compel their application. Once there has been, in the terms of NEPA, “an irretrievable commitment of resources” in the technology development stage, the balance of environmental costs and economic and other benefits shifts in favor of ultimate application of the technology. 288

The court found that an EIS should be immediately drafted, because of the need for “meaningful, timely information on the effects of agency action.” 289 The court considered the problems raised by drafting an EIS either too early or too late in the development process:

In the early stages of research, when little is known about the technology and when future application of the technology is both doubtful and remote, it may well be impossible to draft a meaningful impact statement. Predictions as to the possible effects of application of the technology would tend toward uninformative generalities, arrived at by guesswork rather than analysis. NEPA requires predictions, but not prophecy, and impact statements ought not to be modeled upon the works of Jules Verne or H.G. Wells. At the other end of the spectrum, by the time commercial feasibility of the technology is conclusively demonstrated, and the effects of application of the technology certain, the purposes of NEPA will already have been thwarted. Substantial investments will
have been made in development of the technology and options will have been precluded without consideration of environmental factors. Any statement prepared at such a late date will no doubt be thorough, detailed and accurate, but it will be of little help in ensuring that decisions reflect environmental concerns. Thus we are pulled in two directions. Statements must be written late enough in the development process to contain meaningful information, but they must be written early enough so that whatever information is contained can practically serve as an input into the decision making process. In reconciling these competing concerns with regard to the appropriate timing of EIS preparation and in deciding that an EIS should be prepared immediately, the court enumerated several factors that entered its consideration:

Some balance must be struck, and several factors should be weighed in the balance. How likely is the technology to prove commercially feasible, and how soon will that occur? To what extent is meaningful information presently available on the effects of application of the technology and of alternatives and their effects? To what extent are irretrievable commitments being made and options precluded as the development program progresses? How severe will be the environmental effects if the technology does prove commercially feasible?

Answers to questions like these require agency expertise, and therefore the initial and primary responsibility for striking a balance between the competing concerns must rest with the agency itself, not with the courts. At the same time, however, some degree of judicial scrutiny of an agency's decision that the time is not yet ripe for a NEPA statement is necessary in order to ensure that the policies of the Act are not being frustrated or ignored. Agency decisions in the environmental area touch on fundamental personal interests in life and health, and these interests have always had a special claim to judicial protection.

The court recognized that this balancing process is a difficult one, and when controversial programs are involved, likely to generate substantial differences of opinion. It therefore directed that a record be created to show the reasoning and justifications for an agency determination that the time was not yet ripe for drafting as EIS:

[W]hen the agency has decided that a NEPA statement is not yet necessary, it should state reasons for its decision. The value of such a statement of reasons is becoming generally recognized as courts and agencies grapple with the difficult task of developing procedures for compliance with NEPA. . . . A statement of reasons will serve two functions. It will ensure that the agency has given adequate consideration to the problem and that it understood the statutory standard. In
addition, it will provide a focal point for judicial review of the agency’s decision, giving the court the benefit of the agency’s expertise.\textsuperscript{272}

The court noted that the requirement for an overall program EIS does not eliminate the need for a specific EIS for each individual project undertaken as part of the development program.\textsuperscript{273}

3. Negative statements

A purely administrative- and judge-created aspect of NEPA procedure is the negative statement, a formal document prepared to justify a decision not to prepare an EIS for a given project.\textsuperscript{274} As previously mentioned, the decision to prepare an EIS is triggered by an agency finding that a project involves major federal action which will significantly affect the quality of the human environment.\textsuperscript{275} This threshold determination has been recognized by courts as a key one, since a decision not to prepare an EIS eliminates a significant amount of environmental consideration by the agency, as well as input from other federal and state agencies and the public in the decision process.\textsuperscript{276}

As a result, the burden has been placed on agencies to establish that any decision not to prepare an EIS is a reasonable one, and not an attempt to avoid the standards of NEPA. To do this, the “assessment statement must provide convincing reasons why a construction project with ‘arguably’ potentially significant environmental impact does not require a detailed impact statement.”\textsuperscript{277}

The courts will look at several factors in deciding to accept or reject an environmental assessment and a decision based on it not to prepare an EIS.

First, did the agency take a “hard look” at the problem, as opposed to bald conclusions, unaided by preliminary investigation? . . . Second, did the agency identify the relevant area of environmental concern? . . . Third, as to problems studied and identified, does the agency make a convincing case that the impact is insignificant? . . . the fourth criterion: If there is impact of true “significance” has the agency convincingly established that changes in the project have sufficiently minimized it?\textsuperscript{278}

One of the leading cases concerning the negative declaration requirement is \textit{Hanly v. Mitchell}\textsuperscript{279} and its successor opinion, \textit{Hanly v. Kleindienst}.\textsuperscript{280} In that case, the General Services Administration originally prepared a one-page memorandum finding that location of a proposed new federal jail in downtown Manhattan had no environmental impact.\textsuperscript{281} The court in \textit{Hanly v. Mitchell} ordered a more
detailed assessment of environmental impact and stated that GSA must "affirmatively develop a reviewable environmental record."\textsuperscript{282}

In its second decision, the court was faced with the issue of whether the environmental assessment could be prepared informally without the public input required for an EIS. It found that a certain degree of formality and public input was needed:

We now go further and hold that before a preliminary or threshold determination of significance is made the responsible agency must give notice to the public of the proposed major federal action and an opportunity to submit relevant facts which might bear upon the agency's threshold decision. We do not suggest that a full-fledged formal hearing must be provided before each such determination is made, although it should be apparent that in many cases such a hearing would be advisable for reasons already indicated. The necessity for a hearing will depend greatly upon the circumstances surrounding the particular proposed action and upon the likelihood that a hearing will be more effective than other methods in developing relevant information and an understanding of the proposed action. The precise procedural steps to be adopted are better left to the agency, which should be in a better position than the court to determine whether solution of the problems faced with respect to a specific major federal action can better be achieved through a hearing or by informal acceptance of relevant data.\textsuperscript{283}

In addition to considering the need for public input, the court found it appropriate to make a detailed review of the environmental assessment.\textsuperscript{284} Given the intensity of its review, it appears that the court treated the negative declaration almost as it would have treated an EIS. Indeed, in approving parts of the assessment made by GSA, the court noted that "the assessment closely parallels in form a detailed impact statement."\textsuperscript{285}

The requirement that the assessment virtually meet the standards of an EIS is echoed in Simmans v. Grant\textsuperscript{,286} where the court states:

What is actually required under NEPA and these regulations [EPA Guidelines] is that the federal agency prepare a "mini" environmental impact statement . . . . Without such a record it is impossible for a district court to determine whether or not the agency has complied with sections 102(2)(A), (B) and (D) of NEPA (cites omitted).\textsuperscript{287}

According to the Simmans court, there is some benefit in saved time and effort to the agency drafting the negative declaration:

The preparation of a negative declaration, with accompanying environmental appraisal, saves the sponsoring agency time and expense
which would be required in the preparation of a formal impact statement and also eliminates the necessity of preparing draft impact statements to be circulated to the appropriate federal agencies and interested parties prior to its final completion.\textsuperscript{288}

Thus, it is clear that agencies must prepare an environmental assessment and negative declaration for each action which is found not to warrant preparation of an EIS. The declaration must set forth the reasoning upon which the agency's finding of no impact is based and must show appropriate consideration of all relevant environmental consequences.

\textbf{B. Adequacy of the Environmental Impact Statement}

After the threshold questions have been affirmatively answered, the federal agency will face the need to draft an EIS. During this phase, the agency must ensure that the various required elements of the EIS are adequately and objectively covered.\textsuperscript{289}

\textit{1. An EIS shall be prepared "by the responsible [federal] official."}

Courts have differed strongly over the issue of who must actually prepare environmental impact statements, both draft and final. It is clear from the statute and CEQ Guidelines that the federal agency involved in a project is responsible for the EIS.\textsuperscript{290} However, responsibility can be interpreted in various ways. At one extreme, the requirement can be interpreted to compel a federal agency, through its own employees, to conduct all research and information gathering necessary for the EIS, and to write every word of both the draft and final EIS. At the other extreme, one can argue that the responsibility of the federal agency is satisfied by mere approval of an EIS, with all research and information gathering, and all writing, performed by a non-federal actor. The non-federal actor might be a state or local agency, private consultant hired for the specific purpose of drafting the EIS, or even an interested party heavily involved in the proposal under consideration. A wide range of middle grounds exists between these extremes.

There are court decisions which adopt variants of both extremes, as well as middle positions. The decision which strongly adheres to the position that federal agencies must prepare the EIS and do a major part of the background work is \textit{Greene County Planning Commission v. Federal Power Commission}.\textsuperscript{291} In Greene County the Federal Power Commission had licensed the construction of high vol-
tage transmission lines by the Power Authority of the State of New York. In an attempt to comply with NEPA, FPC regulations required "each applicant for a license for a 'major project' to file its own detailed statement of environmental impact . . .".

The FPC relied on that report as its own environmental statement, and proceeded to hold hearings. The court determined that the procedure of using the statement of the state agency as the EIS was improper for two reasons: (1) the statement will be almost unavoidably self-serving, and (2) the failure of the federal agency itself to prepare an EIS which objectively considers environmental impacts will place the burden of protecting the environment on private intervenors with limited resources, if any exist:

The Federal Power Commission had abdicated a significant part of its responsibility by substituting the statement of PASNY [the electric power company] for its own. The Commission appears to be content to collate the comments of other federal agencies, its own staff and the intervenors and once again to act as an umpire. The danger of this procedure, and one obvious shortcoming, is the potential, if not likelihood, that the applicant's statement will be based upon self-serving assumptions . . .

Moreover, . . ., intervenors generally have limited resources, both in terms of money and technical expertise, and thus may not be able to provide an effective analysis of environmental factors. It was in part for this reason that Congress has compelled agencies to seek the aid of all available expertise and formulate their own position early in the review process.

The court did allow some private participation in the drafting process, by recommending as a model the procedure used by the Atomic Energy Commission. The AEC procedure required that an applicant prepare an environmental statement as part of its application process. However, the AEC staff then would prepare its own draft EIS to be used at hearings and circulated to interested government and private agencies. After the hearings, the AEC staff would draft the final EIS.

Greene County is not alone in requiring the EIS to be drafted by the appropriate federal agency. In Conservation Society of Southern Vermont v. Secretary of Transportation, the Vermont Highway Department had prepared the draft and final EIS in accordance with the Department of Transportation's regulations. The regulations required "cooperation" and "consultation" between the federal and state agencies, and provided that "[federal highway administration] review and adoption of the final impact statement
The court found that an inherent danger of "self-serving assumptions" exists where the same state highway department which initially proposes a project is primarily responsible for assessing its environmental impact. In addition, it found that review of the EIS conducted by the federal agency in the instant case was "merely perfunctory, the equivalent of an agency rubber stamp." Such a perfunctory role in the consideration of environmental issues raised by the project is a clear violation of § 102(2)(C) of NEPA, which exists "to ensure that the federal agency making the decision consider environmental values, potential alternatives and the overall consequences of the proposed action (original emphasis)."

Three other cases concerning highway construction, I-291 Why?, Association v. Burns, Scheer v. Volpe, and Northside Tenants Association v. Volpe also disapprove the use of state environmental reports in lieu of a federal agency EIS.

The majority of cases, however, distinguish Greene County and authorize procedures under which an EIS may be prepared by a non-federal party. Perhaps the most extreme of these cases is Life of the Land v. Brinegar, which concerned the construction of a new runway at Honolulu International Airport. While the Federal Aviation Administration was consulted during the drafting process, both the draft and final EIS were actually prepared by a private engineering firm with a vested interest in having the project approved. However, the court concluded that: "We find nothing, however, in either the wording of NEPA or the case law, which indicates that, as a matter of law, a firm with a financial interest in the project may not assist with the drafting of the EIS."

Rather, the court found that the key issue was whether there was "good faith objectivity" rather than "subjective impartiality" in the preparation of the EIS. It found that such objectivity was maintained by continuous federal agency involvement in the drafting process through regular consultation and active federal agency examination and review of the draft and final EIS's before their adoption. The court asserted that there would be no abdication of responsibility or other undesirable consequences where such consultation and review has occurred.

Justice Douglas of the U.S. Supreme Court subsequently stayed approval of the runway project for federal funding but the stay was vacated by the full Court. In Justice Douglas' dissent to vacation of the stay, he attacked the delegation permitted by the court below:
“It seems to me a total frustration of the entire purpose of NEPA to entrust evaluation of the environmental factors to a firm with a multimillion dollar stake in the approval of the project.”307

While there was no majority opinion, it does seem that the vacation of the stay and subsequent denial of certiorari constitute Supreme Court willingness to allow the analysis of the Ninth Circuit to be followed by federal agencies which wish to do so.

Taking a similar position is *Florida Audubon Society v. Callaway*,308 which concerned the granting of an Army Corps of Engineers dredge and fill permit to allow construction of a nuclear facility at Jacksonville, Florida. Although the Army Corps of Engineers drafted the EIS, the information used in the drafting came from the private developers, with the Corps of Engineers performing no independent investigations.309 The court, however, found that the Corps “independently examined the data and reached its own conclusion.”310 In approving the procedure, which required mere reading and analysis of the data submitted, the court stated: “The law is clear that the agency preparing the impact statement is permitted to accept data from interested parties so long as the analysis of the issues is prepared by the agency.”311

A recent Fifth Circuit case dealt with the delegation problem in the context of a housing project which was to receive a HUD mortgage guarantee and interest subsidy. *Sierra Club v. Lynn*312 states that “the direct participation of the developer and his experts in the underlying environmental and other studies”313 does not automatically render an EIS fatally deficient. The court offers the following analysis:

There is no NEPA prohibition against a state agency, financially interested private contractor or new community applicant providing the federal agency, which must of necessity work closely with these parties, data, information, reports, groundwork environmental studies or other assistance in the preparation of an environmental impact statement [cites omitted]. NEPA demands only that “the applicable federal agency must bear the responsibility for the ultimate work product designed to satisfy the requirement of §102(2)(C)” [cites omitted]. NEPA’s commands, however, do not permit the responsible federal agency to abdicate its statutory duties by reflexively rubber stamping a statement prepared by others. The agency must independently perform its reviewing, analytical and judgmental functions and participate actively and significantly in the preparation and drafting process [cite omitted].314

Virtually all other cases allowing delegation of responsibility for
preparing the EIS concern delegation to a state highway agency.\textsuperscript{315} In \textit{Iowa Citizens for Environmental Quality v. Volpe},\textsuperscript{316} the court reviewed the many cases concerning preparation of the EIS by state highway commissions, and approved a procedure by which a state highway commission would write the draft EIS and final EIS, with federal officials reviewing and circulating the statements. The court ruled that “Review, modification and adoption by the FHWA [Federal Highway Administration] of a statement as its own occurred in this case. Such extensive participation by the responsible federal agency would clearly distinguish this case from \textit{Greene County}.”\textsuperscript{317}

Thus, most courts appear to be willing to accept at least state agency drafting of the EIS if the federal agency is involved by consultation in the drafting process, and adopts the EIS as its own after critically examining its contents. It may also be possible, where an objective analysis occurs, and the federal agency is involved in the drafting process, for a private party to draft the EIS. Nevertheless, owing to the persuasive reasons for preserving maximum objectivity in impact statements, courts may continue to develop and impose judicial safeguards in this important area.

2. “[T]o the fullest extent possible . . . a detailed statement.”

The language of NEPA and the CEQ Guidelines requires that a “detailed” statement be written which sets forth, to the fullest extent possible, all the environmental considerations and information relevant to the proposal under consideration.

One of the first cases decided under NEPA by an appellate court, \textit{Calvert Cliffs’ Coordinating Committee, Inc. v. United States Atomic Energy Commission},\textsuperscript{318} concerned rulemaking by the AEC. \textit{Calvert Cliffs} discusses the obligations created by NEPA and the expansive interpretation to be given these obligations. In the court’s view, NEPA requires federal agencies to substantially modify their procedures to provide for a genuinely detailed analysis of environmental considerations, since “NEPA . . . makes environmental protection a part of the mandate of every federal agency and department.”\textsuperscript{319}

The court interpreted the statutory phrase “to the fullest extent possible” to create “a high standard for the agencies, a standard which must be rigorously enforced by the reviewing courts.”\textsuperscript{320} The standard, according to the decision, is one which requires “a particular sort of careful and informed decisionmaking process and creates judicially enforceable duties.”\textsuperscript{321}
Compliance to the "fullest" possible extent would seem to demand that environmental issues be considered at every important stage in the decisionmaking process concerning a particular action—at every stage where an overall balancing of environmental and nonenvironmental factors is appropriate and where alterations might be made in the proposed action to minimize environmental costs. [original emphasis]322

The decision recognizes that the detailed environmental exploration and required statement will be expensive and time consuming. However, given the important goals and clear mandate of NEPA, such expense must necessarily be accepted and borne to advance the statute's goals.

An excellent explanation of the meaning of the requirement that a statement be detailed can be found in Silva v. Lynn,323 which involved an insufficient EIS for a HUD-sponsored housing project. The court felt that the detailed statement serves three purposes:

First, it permits the court to ascertain whether the agency has made a good faith effort to take into account the values NEPA seeks to safeguard. To that end it must "explicate fully its course of inquiry, its analysis and its reasoning." Second, it serves as an environmental full disclosure law, providing information which Congress thought the public should have concerning the particular environmental costs involved in a project. To that end, it "must be written in language that is understandable to nontechnical minds and yet contain enough scientific reasoning to alert specialists to particular problems within the field of their expertise." It cannot be composed of statements "too vague, too general and too conclusory." Finally, and perhaps most substantively, the requirement of a detailed statement helps insure the integrity of the process of decision by precluding stubborn problems or serious criticism from being swept under the rug. A conclusory statement 'unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind' not only fails to crystallize issues, but 'affords no basis for a comparison of the problems involved with the proposed project and the difficulties involved in the alternatives.' [cites omitted]324

Thus the detailed statement is required to provide the information which should be available to decision-makers and those who wish to review or dispute the decision. It must reproduce the decision-making process so others can check the legitimacy of the process. The statement must also point out the unsolved problems, and areas of controversy and difficult choice, to enable a decision-maker to fully understand the project under consideration.

The court in Silva found that the goals were not met by a simple
“four line description” of how HUD would alleviate a major flooding problem at the prospective site. Conclusory statements, with no real explanation of the actual proposed solution or of other controversial parts of the project, compelled the court to find the EIS insufficient.

The question of what information is required to produce a satisfactory EIS was also considered in Environmental Defense Fund, Inc. v. Corps of Engineers, which concerned the then two-thirds complete Gillham Dam Project on the Cossatot River in Arkansas. The court found that:

At the very least, NEPA is an environmental full disclosure law. . . . The detailed statement . . . should, at a minimum, contain such information as will alert the President, the Council on Environmental Quality, the public, and, indeed, the Congress, to all known possible environmental consequences of proposed agency action. [original emphasis]326

The court also indicated the extent to which information and opinions submitted to the government agency by outside parties should be included in the EIS. In the interest of full disclosure and analysis, the court felt that all such information should be included:

Where experts, or concerned public or private organizations, or even ordinary lay citizens, bring to the attention of the responsible agency environment impacts which they contend will result from the proposed agency action, then the § 102 statement should set forth these contentions and opinions, even if the responsible agency finds no merit in them whatsoever.327

The EIS also must contain agency comments on and evaluations of such information and opinions.328

The court applies the detailed statement requirement by examining the adequacy of the information included, showing the gaps in the information, and even went behind the statement by evaluating the studies upon which the conclusions in the EIS were based.329

Courts have realized that the detailed statement which is required could be so difficult to draft that no project would ever be approved. As a result, decisions have accepted EIS’s which do not explore all issues in the detail that long-term studies might provide. In Sierra Club v. Froehlke, dealing with a flood control dam in Wisconsin, the court recognized this problem and accepted as valid the claim that NEPA “. . . does not require that every conceivable study be performed and that each problem be documented from every angle to explore its every potential for good or ill. Rather, what is required is that officials and agencies take a ‘hard look’ at environmental consequences” [cite omitted].331
Further, the court adopted the language of Environmental Defense Fund v. Corps of Engineers:\(^{332}\)

"It is doubtful that any agency, however objective, however sincere, however well-staffed, and however well-financed could come up with a perfect environmental impact statement in connection with any major project. Further studies, evaluations and analyses by experts are almost certain to reveal inadequacies or deficiencies.\(^{333}\)

However, the court cautioned that the EIS did require a detailed analysis and that an EIS must "objectively and comprehensively [consider] the environmental consequences of the proposed project."\(^{334}\)

Brooks v. Volpe\(^{335}\) is a good example of the failure of an agency to meet the statutory minimum. Brooks concerned the adequacy of a 43-page EIS for a segment of the Interstate Highway system. The court found that:

For the most part, the impact statement suffers from a serious lack of detail, and relies on conclusions and assumptions without reference to supporting objective data. Federal reviewers could not have made an independent decision based on the information referred to, because the sources are not disclosed.

The impact statement also suffers from a reliance on generalities and heavy-handed self-justifications.\(^{336}\)

The court required that additional studies be undertaken to determine the environmental impact of the highway segment. However, it was concerned, as were the courts in the cases discussed above, that the task of the federal agency not be made impossible:

"If the court were to rule that defendants [the agency] must perform all possible research in the environmental effects of the highway, the project could be postponed indefinitely, perhaps forever. Emotional environmentalism must be tempered with rational realism. Litigants must not be allowed to use NEPA as a tool to destroy federal programs under the guise of interest in the environment.\(^{337}\)

Thus the statutory phrases "to the fullest extent possible" and "detailed statement" include both a requirement of a substantial, good faith effort at studying, analyzing and expressing the environmental issues in the EIS and the decision-making process, and a recognition that a rule of reason must prevail because an EIS which fully explores every relevant environmental detail could never be drafted."
3. "[T]he environmental impact of the proposed action"

NEPA requires the detailed statement to analyze "the environmental impact of the proposed action." The CEQ Guidelines explain that this requirement compels federal agencies to include a description of the proposed action, a description of the environment affected, both as it is and as it will be after the action is taken, an analysis of the proposal’s population and growth impacts, and an examination of the relationship between the proposed action and land use control activities in the affected area.\[338\]

Several cases have considered the adequacy of the discussions of environmental impact. In *Montgomery v. Ellis*,\[339\] concerning a stream channelization project in Alabama, the description of the proposed project was found to be inadequate. The court held that in order to draft an adequate EIS, it was essential that there be a full and clear description of the proposed project sufficient to allow any interested person to know what the proposal is. "Without such basic information, the EIS must be deemed insufficient on its face."\[340\]

The court in *Environmental Defense Fund v. Corps of Engineers*\[341\] discussed the description of the environment which must be included in the statement. The court accepted the claim of plaintiffs that "the impact statement simply does not set forth a detailed study and examination of the important environmental factors involved."\[342\] A sufficient EIS, the court felt, should describe among other things the present physical condition of the area. More specifically, the EIS should describe the species of animals and plants living in the area, the food chains existing in the area, and similar considerations, as well as determine whether there are "key-stone" species in the affected area the removal of which could trigger a chain of events which will dramatically change the ecological balance of the whole area.\[343\] In addition, the EIS must predict what the impact of the activity is likely to be on the present condition of the area.

In *Lathan v. Volpe*,\[344\] the court considered the adequacy of the impact description in an EIS for an interstate highway segment. The court found the description to be faulty because it inadequately describe[d] the detrimental effects of air pollution on people (e.g. residents and drivers) in the vicinity of the corridor, fail[ed] to back up its conclusions on noise pollution with scientific data or reference to specific studies, and neglect[ed] to consider in detail the long-term effects of such a major highway on land use and population distribution in the metropolitan Seattle area.\[345\]
In addition, the EIS lacked information about the impact of a tunnel on houses in the area, highway congestion problems likely to occur on other roads, and similar environmental effects to be caused by the project.346

Another court found it necessary to conduct its own detailed analysis of environmental impact in order to assess the adequacy of an EIS prepared with regard to the proposed Trinity River project in Texas.347 After making such an independent environmental analysis, the court in *Sierra Club v. Froehlke* found the EIS to be inadequate. Given the complexity of the project, the court felt that the Corps of Engineers should have included detailed information concerning archeological sites to be affected by the project together with predictions concerning whether the sites would be harmed. The impact of the project on water quality, wildlife and fish, the estuary and related matters, including predictions of injury, all had to be included in the EIS for it to adequately express the impact of the project.348

The environmental impact analysis should include, moreover, an analysis of population and growth characteristics and the project’s impact on land use control activities. The court in *Environmental Defense Fund v. Corps of Engineers*,349 while criticizing the use of an EIS as a “bootstrap” to justify a project, praised the Corps’ observation that

> [a]fter the construction of the dam, . . . there will be increased economic and industrial development, with resulting population growth . . . This growth and development will, based on past experience, result in the pollution of the river in the future. Therefore, the dam is designed to store a certain quantity of water which may later be released to dilute the pollution and thereby enhance the water quality.350

Likewise, in *Sierra Club v. Froehlke*,351 one of the reasons given for the finding of inadequacy was that the Corps of Engineers failed to consider the “development, growth, and industrial expansion” which would result from the project.

Thus the court decisions indicate that the statutory phrase “the environmental impact of the proposed action” is to be interpreted liberally to require that the EIS discuss in detail the proposed project, the environment of the location (defining environment in the broadest sense), and the likely future secondary effects of the project on population, growth and development as well as direct effects on the environment.
4. "Any adverse environmental effects which cannot be avoided should the proposal be implemented"

The CEQ Guidelines explain that these effects should be construed to include, for example, "undesirable land use patterns, damage to life systems, urban congestion, threats to health or other consequences adverse to the environmental goals" set out in NEPA. The EIS section discussing this topic should also specify "for purposes of contrast" avoidable adverse effects and how they are to be avoided.

_Natural Resources Defense Council v. Grant_, which concerned a stream channelization project in North Carolina, considered the required statement of adverse effects on the environment. As with other information required by NEPA, information on adverse effects must be detailed and clear, enabling the decision-makers and reviewers to know exactly what the adverse effects will be to the extent that they are or can be known. Accordingly, the court rejected a section of the EIS concerning sediment deposits because the section predicted a specified amount of sediment without discussing the downstream effects of the sediment:

Having conceded a massive increase in sedimentation, the Statement disposes of its environmental effects in one conclusory statement unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind. Where there is no reference to scientific or objective data to support conclusory statements, NEPA's full disclosure requirements have not been honored.

One may therefore conclude that the statement must discuss not only direct effects of the project, but also cumulative effects of the project itself over time and effects of the project when considered in combination with other federal projects in the same area.

According to some courts, the federal agency must go beyond explaining the adverse effects and discuss mitigation of them. One court has observed that: "NEPA states indirectly, but affirmatively, that under some circumstances federal agencies must mitigate some and possibly all of the environmental impacts arising from a proposed project." According to another court, "all adverse environmental effects should be listed, and harmful effects which cannot be avoided must be discussed to indicate what measures can be taken to minimize the harm."

In sum, under the detailed discussion requirement, adverse effects must be separately discussed and analyzed in the EIS. However, such mitigation efforts may also be discussed as alternatives
to the action and so sometimes will not appear in this section of an EIS.

5. "Alternatives to the proposed action"

A key part of the EIS is the discussion of alternatives, since the major policy decisions and controversial aspects of a project are most clearly brought into focus by a detailed statement of other possible means of carrying out the goals of the proposed project. According to the Guidelines, the alternatives discussed must include "where relevant, those not within the existing authority of the responsible agency." The consideration should be rigorous, sufficiently thorough to avoid foreclosure of options "prematurely", and should include "the alternative of taking no action or of postponing action pending further study."

The Guidelines' interpretation of the requirement is derived from the court decisions construing the scope of the requirement. A leading case for interpreting agency duties to discuss alternatives is *Natural Resources Defense Council, Inc. v. Morton*, which concerned the validity of a Department of the Interior EIS issued in connection with proposed oil and gas leases in offshore fields near Louisiana. In *Morton*, the EIS had discussed in detail the likely impact of the proposed new oil wells and had recognized unavoidable adverse effects of the program. However, it merely mentioned other programs through which Interior could deal with the need for fuel, and did not evaluate the environmental impact of the alternatives.

The court found that the failure to offer an environmental analysis of the alternatives was a fatal flaw in the statement:

We reject the implication of one of the Government's submissions which began by stating that while the Act requires a detailed statement of alternatives, it 'does not require a discussion of the environmental consequences of the suggested alternative.' A sound construction of NEPA . . . requires a presentation of the environmental risks incident to reasonable alternative courses of action.

Of course, while the alternatives must be evaluated in detail, the task—like others involved in EIS preparation—is not intended to become an impossible one for the agency:

The agency may limit its discussion of environmental impact to a brief statement, when that is the case, that the alternative course involves no effect on the environment, or that their effect, briefly described, is simply not significant. A rule of reason is implicit in this
aspect of the law as it is in the requirement that the agency provide a statement concerning those opposing views that are responsible. 363

In addition to the issue of the need for a detailed analysis of the environmental impact of alternatives, the court was presented with the question of the scope of the alternatives to be considered. Could the EIS consideration be limited to those alternatives within the agency's jurisdiction, or must any alternative be considered which some agency of the federal government could carry out? The court decided that it was essential for policy consideration and decision-making that all alternatives be considered even if the drafting agency's authority did not extend to adopting a particular alternative:

[W]e do not agree that this requires a limitation to measures the agency or official can adopt. This approach would be particularly inap­posite for the lease sale of offshore oil lands hastened . . . as part of an overall program . . . to provide an accomodation of the energy require­ments of our country with the growing recognition of the necessity to protect the environment. The scope of this project is far broader than that of other proposed Federal actions discussed in impact statements, such as a single canal or dam. 364

Therefore, where a broad program or policy was to be achieved, EIS's prepared in connection with the program must consider all the ways of achieving its purpose:

The Executive's proposed solution to a national problem, or a set of inter-related problems, may call for each of several departments or agencies to take a specific action; this cannot mean that the only discus­sion of alternatives required in the ensuing environmental impact state­ments would be the discussion by each department of the particular actions it could take as an alternative to the proposal underlying its impact statement.

When the proposed action is an integral part of a coordinated plan to deal with a broad problem, the range of alternatives that must be evalu­ated is broadened. 365

A second aspect of the scope of alternatives was discussed by the court. Some alternatives would not meet all the goals of the project, would not satisfy the time requirements for the proposed action, or would otherwise not satisfy all the conditions of the proposed action. In such a circumstance, it would be permissible to omit discussion of such alternatives, especially if they would occupy different time frames:

We think there is merit to the Government's position insofar as it
contends that no additional discussion was requisite for such "alternatives" as the development of oil shale, desulfurization of coal, coal liquefication and gasification, tar sands and geothermal resources.

The Statement sets forth . . . that while these possibilities hold great promise for the future, their impact on the energy supply will not likely be felt until after 1980, and will be dependent on environmental safeguards and technological developments. Since the Statement also sets forth that the agency’s proposal was put forward to meet a near-term requirement, imposed by an energy shortfall projected for the mid-1970’s, the possibility of the environmental impact of long-term solutions requires no additional discussion at this juncture. 366

Obviously the concept of alternatives is limited by the legitimate goals and objectives of the proposed project. Future desirable solutions, when too remote, are not necessary parts of the consideration for projects aimed at short-run solutions. However, the court recognizes that the difficulty of getting approval for an alternative, especially if long-range legislative action is required, does not justify a failure to consider the alternative:

The mere fact that an alternative requires legislative implementation does not automatically establish it as beyond the domain of what is required for discussion, particularly since NEPA was intended to provide a basis for consideration and choice by the decisionmakers in the legislature as well as the executive branch. But the need for an overhaul of basic legislation certainly bears on the requirements of the Act. We do not suppose Congress intended an agency to devote itself to expanded discussion of the environmental impact of alternatives so remote from reality as to depend on, say, the repeal of the antitrust laws. 367

This analysis establishes that the agency involved must search for reasonable alternatives within the power of the entire federal government to carry out within the reasonable time and with a possibility of solving the problem for which the proposed project is intended. Obviously it leaves a substantial amount of definition and discretion to agencies, and has generated substantial litigation and court consideration in other cases.

In Sierra Club v. Froehlke, 368 the court considered the discussion of alternatives to be "particularly critical because it is usually through this medium that mitigation measures may be discovered." 369 The court recognized that

While agencies must consider alternatives to the "fullest extent possible", the search for appropriate alternatives need be neither "exhaustive" nor speculative and remote. Although only those ‘reasonably
available' need be considered, the discussion and consideration cannot be superficial, but must be thoroughly explored. 370

An important issue in *Froehlke* was whether an alternative must offer a complete solution to the problems raised by the proposed project. The court decided in the negative:

It is not necessary that a particular alternative offer a complete solution to all technical, economic and environmental considerations. If a portion of the original purpose of the project, or its reasonably logical subcomponent, may be accomplished by other means, then a significant portion of the environmental harm attendant to the project as originally conceived may be alleviated. 371

The court saw the need for this consideration of partial solutions as critical for complex and interdependent projects, since sub-portions of projects were most likely to be overwhelmed by the goals and plans for the overall program.

In its analysis of the EIS in the Trinity project, the court set out the process by which alternatives should be discussed and considered:

The proper method for approaching a consideration of alternatives under NEPA is to consider first the primary purposes or functions that the project is to serve. Alternatives to each of these projects must then be weighed, because it is not appropriate to disregard alternatives merely because they do not offer, individually, a complete solution to the problem. Furthermore, each of the primary environmentally adverse effects must be considered, and alternative approaches to the project should be considered with an eye to mitigating each or all of these. The purpose of "breaking" down a project into its beneficial and "detrimental" components' is to determine whether some significant portion of the environmental harm may be alleviated. 372

In *Environmental Defense Fund v. Corps of Engineers,* 373 which concerned the EIS of the Tennessee-Tombigbee Waterway project, one justification for a limited consideration of alternatives by the Corps of Engineers was that alternatives need be developed in detail "only where a project involves unresolved, detrimental environmental impacts." 374 The court quickly rejected such a narrow interpretation of the requirement, finding that all reasonable alternatives must be considered to guarantee that the decision-making will be made on the broadest basis.

Among the alternatives which must be considered, it is now clear, is the alternative of "no action", of simply not carrying out the project. 375 Unfortunately, while stated as required in several cases,
there has been no detailed discussion of exactly how "no action" is to be presented or analyzed. Presumably, the entire discussion of impact, adverse effects, alternatives, and the other required sections of the EIS are all a consideration of the possibility of no action, and are to be included in weighing the decision to carry out some project or action.

6. "The relationship between local, short-term uses of man's environment and the maintenance and enhancement of long-term productivity"

Neither the Guidelines nor court decisions have offered much information about this EIS requirement. However, the requirement could be an important one where a program or project is proposed to solve an immediate crisis, as in offshore oil lease sales, at the expense of long-term fuel needs and short- or long-term injury to an area. The discussion which comes closest to dealing with this issue can be found in Students Challenging Regulatory Agency Procedures (SCRAP) v. Interstate Commerce Commission, which concerned rate setting by the ICC for scrap metal freight on railroads. While not mentioning the section at all, the court expressed the expectation that the new EIS it ordered the agency to prepare would consider the effect of the rates set on short-term and long-term use of metal ores and scrap metals, and would consider the environmental consequences of that effect.

7. "Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented"

As with Section 5 above, the Guidelines and cases offer little information about this required section of the EIS. While the section is mentioned as a reason for invalidating an EIS in one case, it is not explained and constitutes only one of ten reasons listed for rejecting the EIS involved.

However, since many projects do use non-renewable resources, or cause irreversible injury to resources, the section exists as a potential ground for finding invalidity if a good faith specification of irreversible and irretrievable effects is not included in the EIS. Scientists' Institute v. AEC made this much clear. In considering the need and appropriate timing for an overall program EIS, the court was concerned with the fact that a massive investment in one new form of technology for developing electric power would utilize
scarce resources and would simultaneously absorb so much available capital as to block exploration of other potential sources of power. The result, if an EIS were not required early in the program, would be an irretrievable commitment of resources with a long-term significant effect on the environment without environmental planning. The court specifically required the EIS to discuss such issues within the context of this section.

C. Other Rights Created by NEPA

While the action-forcing § 102(2)(C) requiring an environmental impact statement has been the major source of litigation and the major section affecting federal agency behavior under NEPA, some decisions have considered agency duties arising under other parts of the Act.

\[\text{All agencies of the Federal Government shall—(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment.}\]

Several courts have analyzed agency actions in light of the agency duty to utilize a systematic, interdisciplinary approach in conducting the environmental exploration.

Hanly v. Kleindienst II considered the meaning of § 102 (2)(A) listed above, as well as an important threshold issue under § 102(2)(C) of NEPA. The Federal Government, when its action was challenged on the basis that an interdisciplinary approach was lacking, claimed that such an approach was necessary only if a major action significantly affecting the environment was involved. The court found that such an interpretation of NEPA would be too narrow and that § 102(2)(A), unlike § 102(2)(C), applied to any federal action.

The court concluded, however, that an interdisciplinary approach had in fact been followed by the agency in the challenged action. Since to plan the urban building the agency retained architects who took "into account the aesthetics and the tangible factors involved in the designing and planning" of the project, the interdisciplinary requirement was satisfied.

In Scenic Hudson Preservation Conference v. Federal Power Commission, the court applied this section to plans for a power plant along the Hudson River in New York State. NEPA had been
passed during the consideration of the environmental effects of the proposed project, but was held to be applicable to the project. The court found that public hearings at which a substantial number of witnesses with expertise in virtually all environmental disciplines testified had satisfied the requirement for a systematic, interdisciplinary approach by the agency.  

The court in *Akers v. Resor* noted that where there are other agencies available with expertise, such agencies must be consulted to satisfy the interdisciplinary approach requirements.

Probably the most explicit explanation of this requirement is offered in *Environmental Defense Fund v. Corps of Engineers*, which concerned a proposed connecting waterway between two rivers.

The court analyzed how this approach was utilized by the Corps of Engineers. A task force of scientists was created "... having expertise in water resources planning, sanitary and civil engineering and various phases of biology and ecology. ... [T]he team, together with other Corps scientists ... used in consultation, represented an adequate range of relevant sciences and possessed the capability to make an interdisciplinary approach." The task force worked for six months, "... gathering data from the Corps' files and outside sources, and consulting about 60 persons or agencies in the representative fields of mammalogy, herpetology, ornithology, aquatic invertebrates and plankton, entomology and vertebrate ecology, ichthyology, water and air quality, and other sciences." The task force requested information from federal and state agencies and the public, and attempted to put the information into a coherent analysis of the environment and likely impacts and problems.

In broad outline, therefore, subsection (A) requires federal agencies to use an interdisciplinary approach to environmental considerations and carry out a thorough analysis of all their actions utilizing relevant disciplines.
One problem with modern decision-making is that quantifiable values and considerations usually become the basis for a decision, overwhelming non-quantified aspects of the problem. This section was drafted to require federal agencies to begin to quantify, and thus consider, environmental values, thereby avoiding the undesirable effects of decision-making made on an unduly narrow basis.}

The meaning of this section is most completely considered in the Fifth Circuit's opinion in Environmental Defense Fund v. Corps of Engineers. Plaintiffs attacked the decision of the Corps of Engineers to build a connecting waterway on the basis of a Corps failure to include a "rational scheme of values" in the consideration of the environmental aspects of the proposed project. The Corps had included in the benefits side of its analysis environmental benefits such as recreation, but failed to include any environmental factors on the loss side.

The court found that the effect of § 102(2)(B) is to:

order no more than that an agency search out, develop and follow procedures reasonably calculated to bring environmental factors to peer status with dollars and technology in their decisionmaking. We agree with the ultimate thrust of the district court's legal and factual conclusion, which was that the Corps' methodology satisfied subsection (B) by making a good faith attempt to weight and weigh ecology in reaching its ultimate approval.

The section does not

command an agency to develop or define any general or specific quantification process. Plaintiffs concede that compliance with this subsection does not require that every environmental amenity be reduced to an integer capable of insertion into a "go-no go" equation. They must further acknowledge that many environmental values cannot be fixed even within a given project area, and that others are bound to vary in value from place to place and time to time.

Thus, this section would seem to require a good faith effort only, and not a complete quantification of environmental values prior to project decision-making—an effort which, under the present limited capabilities of the ecological and social sciences, would probably be
impossible in any event. Earlier cases generally are in accord with this approach. In *Environmental Defense Fund v. Corps of Engineers*, the court found that the Corps had not developed quantification standards for environmental factors, and had not fully taken such factors into account in its decision-making process. However, the court refused to find the EIS insufficient on those grounds, because

The NEPA does not require the impossible. Nor would it require, in effect, a moratorium on all projects which had an environmental impact while awaiting compliance with § 102(2)(B). It would suffice if the statement pointed out this deficiency. The decisionmakers could then determine whether any purpose would be served in delaying the project while awaiting the development of such criteria.

In *Akers v. Resor*, however, the court stated that the section requires development of “general methods and procedures to insure that unquantified values are given due consideration.” It found that the Corps of Engineers had failed in its duty to comply with this section, because it had not developed the quantification system and had not, in the alternative, made in-depth studies of the environmental considerations and values so they could be considered at all. The Corps had merely ignored some important values.

The case which goes farthest in requiring quantification, and offers the most detailed discussion of cost-benefit analysis, is the subsequently reversed district court opinion in *Sierra Club v. Froehlke*. The court considered in detail all parts of the cost-benefit analysis performed by the Corps and found it insufficient to satisfy NEPA. The Corps had failed to justify figures used for benefits, failed to include detriments, and generally used questionable methods. On this basis, among others, the court ordered a new analysis and EIS to be prepared. In its analysis, the court recognized that “sophisticated techniques” were not available for environmental quantification. However, unlike its counterparts in the cases discussed above, the court felt that these

... interim alternative methods should be explored ... to insure that we do not unnecessarily jeopardize the intent of NEPA between now and the time that agencies and ultimately the courts are supplied with appropriate standards for evaluating the comparative degree of benefits and costs.

It is fair to say that the general court interpretation of this section is that it has set a goal which reasonably must be complied with by agencies. However, except possibly for one court, no strict require-
ment exists making quantification a condition precedent to continued agency action.

D. Substantive Rights Under NEPA

A question frequently raised by opponents of agency decisions is whether NEPA has created any substantive rights which might be enforced to reverse federal agency decisions, once NEPA's procedural requirements have been met. The opponent to agency action will usually state that NEPA creates a right to a safe or clean environment, and that the agency decision is invalid because it violates that right and will lead to degradation of the environment. A court would probably reach this claim only after it had found that the agency had drafted an acceptable EIS and met all other procedural requirements, so that only a decision finding substantive rights and a violation of them would prevent the action. While this issue has been frequently litigated, the courts sharply disagree concerning whether substantive rights exist, and to what extent courts may enforce them.\(^{403}\)

1. Cases denying the existence of substantive rights

A leading case denying that courts may review the merits of the ultimate agency decision is *Environmental Defense Fund v. Armstrong*,\(^ {404}\) which concerned the proposed New Melones Dam project in California. When faced with the question of the extent of its review of the project, once it had found the EIS sufficient, the court stated:

> We do not read the National Environmental Protection [sic] Act to give to the courts the ultimate authority to approve or disapprove construction of a properly authorized project where an adequate EIS has been prepared and circulated in accordance with the NEPA requirements. There has been some uncertainty in the views of other courts upon this issue. [cites omitted] We have taken the view that final judgments of project justification are not subject to review in an action to consider the adequacy of an EIS statement under NEPA. [cite omitted] Congress in reauthorizing the project and in determining whether to proceed in the light of the EIS must consider many other factors in addition to the environmental effects. These questions are not before us and properly so.\(^{405}\)

An articulate exposition of the reasons why courts will not find substantive rights in NEPA is offered by Judge Eisele of the U.S. District Court in Arkansas in *Environmental Defense Fund v. Corps*
of Engineers. Although the decision was reversed on this point by the Circuit Court, it still has utility as an example of the views of courts which have found no substantive rights inherent in NEPA. Judge Eisele was faced with an argument which he characterized as claiming that NEPA

... creates rights in the plaintiffs and others to "safe, healthful, productive and esthetically and culturally pleasing surroundings;" and to "an environment which supports diversity and variety of individual choice," and "the widest range of beneficial values."

The judge could not accept the thesis that such rights were created:

The Act appears to reflect a compromise which, in the opinion of the Court, falls short of creating the type of "substantive rights" claimed by the plaintiffs. Apparently the sponsors could obtain agreement only upon an Act which declared the national environmental policy. This represents a giant step, but just a step. It is true that the Act required the government 'to improve and coordinate Federal plans, functions, programs, and resources,' but it does not purport to vest in the plaintiffs, or anyone else, a 'right' to the type of environment envisioned therein. No reasonable interpretation of the Act would permit this conclusion. If the Congress had intended to leave it to the courts to determine such matters; if, indeed, it had intended to give up its own prerogatives and those of the executive agencies in this respect, it certainly would have used explicit language to accomplish such a far-reaching objective.

In Judge Eisele's view, NEPA had created procedural requirements concerning the drafting of an EIS; but in other sections of the Act, Congress had merely stated a policy and hope for the future which could not be translated into substantive rights and duties. A third major case denying the existence of substantive rights, Conservation Council of North Carolina v. Froehlke, was also subsequently reversed by the Circuit Court. The District Court was faced with an attack on the decision to build The New Hope Dam, a project very similar to the Gillham Dam. It decided the requirements of NEPA "provide only procedural remedies instead of substantive rights ... Therefore the Court cannot substitute its opinion as to whether the project should be undertaken or not." As far as this court was concerned, the function of NEPA and the requirement for drafting an EIS was to provide environmental "full disclosure"; to enable decision-makers to consider alternatives to the project, "adverse effects, mistakes in calculations and reasons that the dam should not be built" together with justifications for the project.
But, according to the court, NEPA did not empower courts to decide if the project should be built:

The role of this Court, and indeed all courts, is to require compliance with the law. What is best to be done along the environs of the New Hope and Haw Rivers is a judgment matter for Congress, and the Court must be careful not to substitute its judgment as to what is best. It is clear that NEPA was not intended to be a means for the Courts to second guess congressional appropriations, but was intended to be a means of disclosing to Congress and other decisionmakers all environmental factors in order that decisions and appropriations could be made with as little adverse effect on the environment as possible.

2. Cases finding substantive rights under NEPA

A series of cases has denied that NEPA is limited to procedural aspects. The first case to state that limited substantive rights had been created by NEPA was Calvert Cliffs Coordinating Committee v. Atomic Energy Commission. In discussing the impact of NEPA, the court found that substantive review was proper, at least where an arbitrary decision ignoring environmental information had been made:

We conclude, then, that Section 102 of NEPA mandates a particular sort of careful and informed decisionmaking process and creates judicially enforceable duties. The reviewing courts probably cannot reverse a substantive decision on its merits, under Section 102, unless it be shown that the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values.

The watershed case, however, is Environmental Defense Fund v. Corps of Engineers reversing Judge Eisele. In EDF, the Circuit Court stated: "The language of NEPA, as well as its Legislative history, make it clear that the Act is more than an environmental full-disclosure law. NEPA was intended to affect substantive changes in decisionmaking." After reviewing the procedural section of NEPA discussed supra, the court found a duty for agencies to carry out a "careful and informed decision-making process" and to include therein environmental factors along with economic and technical ones.

The court then considered the duties of courts to review agency decisions:

Given an agency obligation to carry out the substantive requirements of the Act, we believe that courts have an obligation to review substan-
tive agency decisions on the merits. Whether we look to common law or the Administrative Procedure Act, absent "legislative guidance as to reviewability, an administrative determination affecting legal rights is reviewable unless some special reason appears for not reviewing." [cite omitted] Here, important legal rights are affected. NEPA is silent as to judicial review, and no special reasons appear for not reviewing the decision of the agency. To the contrary, the prospect of substantive review should improve the quality of agency decisions and should make it more likely that the broad purpose of NEPA will be realized.\(^{421}\)

A description then followed of the standard of review to be applied to substantive decisions:

The reviewing court must first determine whether the agency acted within the scope of its authority, and next whether the decision reached was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. In making the latter determination, the court must decide if the agency failed to consider all relevant factors in reaching its decision, or if the decision itself represented a clear error in judgment.

Where NEPA is involved, the reviewing court must first determine if the agency reached its decision after a full, good faith consideration and balancing of environmental factors. The court must then determine, according to the standards set forth in §§ 101(b) and 102(1) of the Act, whether "the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values."\(^{422}\)

The court maintained that it was not authorizing a total review of the agency decision: "Although this inquiry into the facts is to be searching and careful, the ultimate standard of review is a narrow one. The court is not empowered to substitute its judgment for that of the agency."\(^{423}\)

The Eighth Circuit continued its analysis of substantive review in *Environmental Defense Fund v. Froehlke*,\(^{424}\) which concerned the Cache River channelization project. In *Froelke*, the court affirmed the narrow standard of review of substantive decisions it had stated ought to be utilized. In addition, it was faced with a new agency defense that even limited review should not be conducted where the Congress has appropriated funds for the project after the EIS has been filed and the final agency decision has been made. In rejecting that contention, the court ruled that a Congressional appropriation would not overcome the substantive requirements of NEPA: "NEPA requires that construction projects be completed in accordance with its substantive provisions. An appropriation act cannot serve as a vehicle to change that requirement."\(^{425}\) While agreeing that substantive review was proper, the Fifth Circuit in
Environmental Defense Fund v. Corps of Engineers\(^4\) disagreed with the latter conclusion of the Eighth Circuit. The court held that where Congress has made a decision that a project should be built, there would be no review of that decision: "This informed and deliberate legislative action, while not barring court review for procedural compliance, nevertheless effectively supplants the Corps' recommendation that the project be built. Hence, even severely circumscribed judicial review is both inappropriate and unnecessary."\(^4\)

The Fifth Circuit extended its analysis in Sierra Club v. Callaway.\(^4\) After the District Court had enjoined construction of a dam due to an insufficient EIS, the Report of the relevant Senate Committee deleted funding for the project from the appropriations bill. The 1974 Appropriations Act, however, restored funds for the project on the basis of a House-Senate Conference Committee agreement.\(^4\) Because of this Congressional action, the Court reasoned that

The course of Congressional hearings discloses a firm and determined policy on the part of that body that Wallisville go forward on its own to final completion. With full knowledge of the detriments and benefits of the project, the stage of completion, the outstanding injunction, and the objections to further construction, its deliberate action in reaffirming the Wallisville Project should not escape notice.\(^3\)

Thus, even where courts agree that substantive rights have been created, they disagree whether Congressional approval of a project through the appropriations process will eliminate the substantive review by the court.

In summary, the trend of judicial opinion appears to support the existence of substantive rights under NEPA. Those rights, which are based on Sections 101 and 102 of NEPA, constitute additional limitations on the actions and decision-making of federal agencies. The agency must make rational decisions which are not arbitrary or capricious or clearly injurious to the environment without sufficient balancing justifications. It is not yet determined, however, how far courts will delve into agency decisions once the substantive rights have been asserted.

In addition, it is not yet clear whether Congressional approval of a project through the appropriations process, after environmental analysis has been completed, will be sufficient to insulate the agency decision from substantive judicial review.
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III. Conclusion

NEPA has had a remarkable history. In the first five years since its passage an entire specialty of law has developed around its provisions and its implications for federal activities and programs. This article has presented an overview of the administrative and judicial interpretations which directly affect the workings of the federal bureaucracy. However, it is clear that there are many areas in which confusion reigns and many subjects on which there are strong differences of opinion, even among the courts. The "NEPA common law" will continue to develop through a large volume of litigation. Hopefully, judicial decisions will soon clarify the obligations of federal agencies in ambiguous areas and will develop workable standards for environmental evaluation and protection.

Footnotes

* Associate Professor, University of Santa Clara Law School. Funds for the preparation of much of this article have been allocated by the NASA-Ames Research Center, Moffett Field, California pursuant to federal contract. The opinions and conclusions expressed in it are solely those of the author and do not represent those of the National Aeronautics and Space Administration, the federal government, or any federal official.


2 The Guidelines have been promulgated by the Council on Environmental Quality (CEQ). CEQ was established by Title II of NEPA and was granted authority to promulgate regulations by Exec. Order No. 11514, March 5, 1970, 3 C.F.R. 271 (1974), 35 Fed. Reg. 4247 (1970).


4 YARRINGTON, supra n.1.

5 Excellent articles concerning NEPA include YARRINGTON, supra n. 1; D'Amato, A., and Baxter, J., The Impact of Impact Statements Upon Agency Responsibility: A Prescriptive Analysis, 59


8 The Titles are called Subchapters in the codification.

9 Whether NEPA has created substantive rights, as opposed to procedural rights to a proper environmental impact statement, is a key issue which is discussed in text *infra* at notes 403-430.


11 *Id.*

12 *Id.*


14 *Id.*

15 *Id.*


17 42 U.S.C. §4332(E) and (F) (1970).
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18 42 U.S.C. § 4332(A), (D), (G) and (H)(1970).

19 The action-forcing provisions were not included in the act as originally drafted. See, supra n. 5, at 5-6.

20 42 U.S.C. § 4332(2)(C)(1970). This section was section 102(2) (C) in the original version, and environmental impact statements are often referred to as "102 statements." For example, the Environmental Protection Agency published a regular listing of impact statements called the "102 Monitor".


23 Id.


32 Among the functions are the following:

(a) Evaluate existing and proposed policies and activities of the Federal Government directed to the control of pollution and the enhancement of the environment. . . . (b) Recommend to the President and to agencies priorities among programs designed for the control of pollution and for enhancement of the environment. (c) Determine the need for new policies and programs for dealing with environmental problems not adequately addressed. (d) Conduct . . . public hearings or conferences on issues of environmental significance. (e) Promote the development and use of indices and monitoring systems. . . . (f) Coordinate Federal programs related to environmental quality. (g) Advise and assist the President and the agencies in achieving international cooperation for dealing with environmental problems, under the foreign policy guidance of the Secretary of State. . . . (j) Assist the President in preparing the annual Environmental Quality Report . . . (k) Foster investigations, studies, surveys, research, and analyses relating to (i) ecological systems and environmental quality, (ii) the impact of new and changing technologies thereon, and (iii) means of preventing or reducing adverse effects from such technologies.

In addition to the four sets of Guidelines, CEQ has periodically published Memoranda. For a discussion of the Memoranda not discussed in this article, see, INFLUENCE OF CEQ GUIDELINES, supra n. 31, at 559-65.

The CEQ Guidelines are not mandatory since not authorized by NEPA. See, infra, n. 41.


An unnumbered section of the Guidelines states: “The revisions of these guidelines shall apply to all draft and final impact statements filed with the Council [on Environmental Quality] after January 28, 1974.”


Id., §2.
45 Id., §3.
46 Id.
47 Id.
48 Id.
49 Id.
50 The phrase is the statutory standard established by NEPA; 42 U.S.C. §4332 (2)(C).
52 Id., §5(b).
53 Id.
54 Id.
55 Id.
56 Id., §11.
57 Id., §5(b).
58 Id., §5(c).
59 Id.
60 Id.
61 Id.
62 Id.
63 Id., §6(a)(i).
64 Id., §6(a)(ii).
65 Id.
66 Id.
67 Id., §6(a)(iii).
68 Id., §6(a)(iv).
69 Id., §6(a)(v).
70 Id., §6(a)(vi).
71 Id., §6(a)(vii).
72 Id., §7.
73 Id.
74 Id.
75 Id., §10(b).
76 Id., §10(c).
77 Id., §10(e).
78 Id.
79 CEQ MEMORANDUM, supra n. 38.
80 Id., at §A.1.
81 Id.
82 Id., at §A.4.
83 Id., at §A.2.
84 Id., at §A.3.
The section specifies that "agencies should give consideration to using the rates of growth in the region of the project contained in the projection compiled for the Water Resources Council by the Bureau of Economic Analysis of the Department of Com-
merce and the Economic Research Service of the Department of Agriculture” [the “OBERS” projection].

125 Id.
126 Id., §1500.8(a)(3).
127 Id., §1500.8(a)(3)(ii).
128 Id.
129 Id.
130 Id., §1500.8(a)(4).
131 Id.
132 Id., §1500.8(a)(5).
133 Id., §1500.8(a)(7).
134 Id.
135 Id., §1500.8(a)(8).
136 Id., §1500.4(a).
137 Id., §1500.8(a)(8).
138 Id., §1500.9

139 Appendix II of the guidelines is entitled “AREA OF ENVIRONMENTAL IMPACT AND FEDERAL AGENCIES AND FEDERAL STATE AGENCIES WITH JURISDICTION BY LAW OR SPECIAL EXPERTISE TO COMMENT THEREON.”

141 CEQ GUIDELINES, August 1, 1973, 40 C.F.R. §1500.9(c) (1974).
142 Id., §1500.9(d).
143 Id., §1500.9(f).
144 Id., §1500.11.
145 Id., §1500.10(a).
146 Id.
147 Id.
148 Id., §1500.11(b).
150 Generally, NEPA’s procedural and substantive requirements
apply to all federal agencies and federal action. Only the much-litigated EIS requirement of §102(2)(C) is limited in its application to "major federal action significantly affecting the quality of the human environment." 42 U.S.C. §4332(2)(C) (1970).

151 See, cases discussed in text at n. 156-182 infra.
152 See, cases discussed in text at n. 183-217 infra.
153 Id.
154 See, cases discussed in text at n. 218-230 infra.
155 Very few such cases have found that no federal action is involved. See, text at n. 163-182 infra. In no case has a court made a finding of no federal action where a federal agency was actually carrying out a project or taking part in its construction directly. See, YARRINGTON, supra n. 1, at 21-22, for a list of cases in which there has been a finding of no federal action. See also Brown, E., Applying NEPA to Joint Federal and Non-Federal Projects, in this issue of ENVIRONMENTAL AFFAIRS.

156 YARRINGTON, supra n. 1, at 21. The question of what constitutes federal action is also analyzed in Comment, The Role of the Courts Under NEPA, 23 Catholic U. L. Rev. 300, 306-312 (1973) (hereinafter cited as ROLE OF COURTS); ANDERSON, supra n. 6, at 56-73.
157 476 F.2d 421 (5th Cir. 1973).
159 497 F.2d 252, 257 (4th Cir. 1974).
160 469 F.2d 593 (10th Cir. 1972).
163 464 F.2d 254 (1st Cir. 1972). YARRINGTON, supra n. 1, at 22, also considers the case surprising.
164 464 F.2d 254, 258.
165 Id.
167 Id., at 803.
169 Id., at 772.
170 484 F.2d 11 (8th Cir. 1973).
171 Id., at 16-17.
172 463 F.2d 537 (7th Cir. 1972), cert. denied, 409 U.S. 1047 (1972).
The court states: “Efforts by environmentalists to preserve our natural habitat . . . cannot help but strike a sympathetic chord. Indeed, this is particularly true where, as here, this laudable purpose appears frustrated by a federal statutory scheme which, despite its lofty aims, provides a mere chimera of environmental protection. Although appellants evoke our empathy and full understanding of their justifiable frustrations, we can find nothing in the law to justify reversal . . .” Id., at 1142.


484 F.2d 1146 (2d Cir. 1973).

Id., at 1148.

Id.

YARRINGTON, supra n. 1, at 22-24. See also, ANDERSON, supra n. 6, at 73-105.

See, text at n. 188-200 infra. See, Hanly v. Kleindienst, 460 F.2d 640 (2d Cir. 1972) and text at n. 192-197 infra.

See, text at n. 188-299 infra. See also, Minnesota PIRG v. Butz, 498 F.2d 1314 (8th Cir. 1974) and text at n. 188-191 infra.


See, Calvert Cliffs’ Coordinating Committee v. AEC, 449 F.2d 1109 (D.C. Cir. 1971), concerning federal action and the AEC. See, National Helium Corp. v. Morton, 455 F.2d 650 (10th Cir. 1971), where the court found that the decision of the Interior Department to end helium purchase was a major federal action which would require the drafting of an environmental impact statement.

498 F.2d 1314 (8th Cir. 1974).

Id., at 1319.

Id., at 1321.

Id., at 1321-22.

471 F.2d 823 (2d Cir. 1972), cert. denied, 412 U.S. 908 (1973). The case came up originally as Hanly v. Mitchell, 460 F.2d 640 (2d Cir. 1972), cert. denied sub nom., Hanly v. Kleindienst, 409 U.S. 990 (1972). In addition, the case was before the Second Circuit a third time in 1973 concerning the denial of a temporary injunction,
Hanly is discussed at length in Comment, NEPA, EIS and the Hanly Litigation: To File or Not to File, 48 N.Y.U. L. Rev. 522 (1973); Comment, Threshold Determinations under NEPA, 5 Rutgers-Camden L.J. 380 (1974).


This difficulty will be a continuing problem during at least this decade, since many major activities often take ten or fifteen years or even longer from conception to completion. See, e.g., Sierra Club v. Froehlke, 359 F.Supp. 1289 (S.D. Tex. 1973), which concerns the Trinity River Basin project. The project can be traced back to the time of the Civil War and has been studied, started, abandoned and restudied throughout the 20th century. See, ANDERSON, supra n. 6, at 142-78.

See, text supra at n. 233.


CEQ GUIDELINES, 40 C.F.R. §1500.7(a) (July 1974).

See generally, text supra at nn. 43-92.

The court analyzed the history of the project in detail at 359 F.Supp. at 1299-1305, 1311-1322.

See, Sierra Club v. Froehlke, 359 F.Supp. 1289 (S.D. Tex. 1973); Arlington Coalition on Transportation v. Volpe, 458 F.2d 1323, 1331 (4th Cir. 1972). See also, ANDERSON, supra n. 6, at 142-78.


The court analyzed the history of the project in detail at 359 F.Supp. at 1299-1305, 1311-1322.

359 F.Supp. 1289, 1309.

Id., at 1384-85.

Id., at 1322.

Id., at 1323.
249 Id.
250 Id., at 1384-85.
251 6 BNA Environment Reporter Cases 2080 (5th Cir. 1974).
252 The decision states that "the rule against segmentation for EIS purposes is not an imperative to be applied in every case. Its application vel non may depend on the scope of the project." Id., at 2083. In addition, the court noted that "practical necessity" as shown by different stages of planning might excuse the lack of an overall EIS. Id.
253 458 F.2d 1323 (4th Cir. 1972), cert. denied, 409 U.S. 1000.
254 Id., at 1328.
255 Id.
256 Id.
257 Id.
258 Id., at 1331.
259 Id., at 1332.
260 454 F.2d 613 (3rd Cir. 1971).
261 Id., at 616.
262 Id., at 624.
263 Similar cases include San Francisco Tomorrow v. Romney, 342 F.Supp. 77 (N.D. Cal. 1972), aff'd in part, 472 F.2d 1021 (9th Cir. 1972); Jicarilla Apache Tribe v. Morton, 471 F.2d 1275 (9th Cir. 1973). See, Anderson, supra n. 6, at 152-56; Yarrington, supra n. 1, at 25.
265 481 F.2d at 1083 (D.C. Cir. 1973).
266 Id., at 1084.
267 Id., at 1088.
268 Id., at 1089-90.
269 Id., at 1093.
270 Id., at 1093-94.
271 Id., at 1094.
272 Id., at 1094-95.
273 Id., at 1085.
274 The negative declaration is discussed in Hanly v. Kleindienst, 471 F.2d 823, 836 (2d Cir. 1972). See also, Maryland National Capi-

275 See, text supra at n. 149-230.
281 The text is set out in 460 F.2d 640, 645-46.
282 Id., at 647.
283 471 F.2d 823, 836.
284 Id., at 832-36.
285 Id., at 832.
287 Id., at 17.
288 Id., at 18.
289 See, text supra at n. 20, where NEPA §102(2)(C) appears in full.
292 Id., at 416.
293 Id., at 420.
294 Id., at 422.
296 Id., at 629.
297 Id., at 631.
298 Id., at 632.
300 466 F.2d 1027 (7th Cir. 1972).
301 346 F. Supp. 244 (E.D. Wis. 1972).
302 485 F.2d 460 (9th Cir. 1973), stay vacated by U.S. Supreme
The cases are listed and discussed in YARRINGTON, supra n. 1, at 17-20. 

316 487 F.2d 849 (8th Cir. 1973).
317 Id., at 854.
318 449 F.2d. 1109 (D.C. Cir. 1971). See YARRINGTON, supra n. 1, at 25-27; ANDERSON, supra n. 6, at 200-214.
319 449 F.2d. at 1112 (D.C. Cir. 1971).
320 Id., at 1114.
321 Id., at 1115.
322 Id., at 1118.
323 482 F.2d. 1282 (1st Cir. 1973).
324 Id., at 1284-1285.
327 Id.
328 Id.
329 Id., at 759-763.
330 486 F.2d. 946 (7th Cir. 1973).
331 Id., at 951.
333 486 F.2d. 946, 951 (7th Cir. 1973).
334 Id. Accord, Environmental Defense Fund v. Corps of Engineers, 492 F.2d. 1123 (5th Cir. 1974).
303 Id.
304 Id.
306 Id., at 1048.
307 6 BNA ENVIRONMENT REPORTER CASES 1320 (M.D. Fla. 1974).
308 Id., at 1325.
309 Id.
310 Id., at 1326.
311 7 BNA ENVIRONMENT REPORTER CASES 1033 (5th Cir. 1974).
312 Id., at 1042.
313 Id.
314 Id.
315 The cases are listed and discussed in YARRINGTON, supra n. 1, at 17-20.
316 487 F.2d 849 (8th Cir. 1973).
317 Id., at 854.
318 449 F.2d. 1109 (D.C. Cir. 1971). See YARRINGTON, supra n. 1, at 25-27; ANDERSON, supra n. 6, at 200-214.
319 449 F.2d. at 1112 (D.C. Cir. 1971).
320 Id., at 1114.
321 Id., at 1115.
322 Id., at 1118.
323 482 F.2d. 1282 (1st Cir. 1973).
324 Id., at 1284-1285.
327 Id.
328 Id.
329 Id., at 759-763.
330 486 F.2d. 946 (7th Cir. 1973).
331 Id., at 951.
333 486 F.2d. 946, 951 (7th Cir. 1973).
334 Id. Accord, Environmental Defense Fund v. Corps of Engineers, 492 F.2d. 1123 (5th Cir. 1974).
303 Id.
304 Id.
306 Id., at 1048.
307 6 BNA ENVIRONMENT REPORTER CASES 1320 (M.D. Fla. 1974).
308 Id., at 1325.
309 Id.
310 Id., at 1326.
311 7 BNA ENVIRONMENT REPORTER CASES 1033 (5th Cir. 1974).
312 Id., at 1042.
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316 487 F.2d 849 (8th Cir. 1973).
317 Id., at 854.
318 449 F.2d. 1109 (D.C. Cir. 1971). See YARRington, supra n. 1, at 25-27; ANDERSON, supra n. 6, at 200-214.
319 449 F.2d. at 1112 (D.C. Cir. 1971).
320 Id., at 1114.
321 Id., at 1115.
322 Id., at 1118.
323 482 F.2d. 1282 (1st Cir. 1973).
324 Id., at 1284-1285.
327 Id.
328 Id.
329 Id., at 759-763.
330 486 F.2d. 946 (7th Cir. 1973).
331 Id., at 951.
333 486 F.2d. 946, 951 (7th Cir. 1973).
334 Id. Accord, Environmental Defense Fund v. Corps of Engineers, 492 F.2d. 1123 (5th Cir. 1974).
335 Brooks v. Volpe has a lengthy history: 319 F.Supp. 90 (W.D. Wash. 1970); 329 F. Supp. 118 (W.D. Wash. 1971); aff’d. 460 F.2d.
1193 (9th Cir. 1971); 350 F.Supp. 269 (W.D. Wash. 1972); 350 F.Supp. 287 (W.D. Wash. 1972).
337 Id., at 276-277.
338 See, CEQ GUIDELINES, 40 C.F.R. §1500.8(a)(1) and (2)(1974).
See also, YARRINGTON, supra n. 1, at 27.
340 Id., at 521.
342 Id., at 748.
343 Id., at 747.
344 350 F.Supp. 262 (W.D. Wash. 1972), vacated and remanded, 455 F.2d 1111 (9th Cir. 1971), modified on rehearing, 455 F.2d 1122 (9th Cir. 1971).
348 The district court was reversed by the Fifth Circuit in Sierra Club v. Callaway, 6 BNA ENVIRONMENT REPORTER CASES 2080 (5th Cir. 1974) on other grounds. In its opinion, the reversing court specifically found that the EIS was inadequate and ordered the Corps of Engineers to submit a revised or supplemental statement. Id., at 2088-89.
350 Id., at 761.
352 CEQ GUIDELINES, 40 C.F.R. §1500.8(a)5(1974).
353 Id. See also, YARRINGTON, supra n. 1, at 27-28.
356 Id., at 288-289.
359 CEQ GUIDELINES, 40 C.F.R. §1500.8(a)(4)(1974).
360 Id. For an analysis of alternatives see YARRINGTON, supra n. 1, at 28-29; IMPACT OF IMPACT STATEMENTS, supra n. 5, at 208-222.

458 F.2d 827, 834 (D.C.Cir. 1971).

Id.


Id., at 835.


Id.

365 Id., at 1343.

366 Id., at 1344.

367 Id., at 1353-1354.

368 359 F.Supp. 1289 (S.D. Tex. 1973). This decision was reversed on other grounds by the Fifth Circuit in Sierra Club v. Callaway, 6 BNA Environment Reporter Cases 2080 (5th Cir. 1974). The reversing court did not consider in detail why the EIS was inadequate, but did agree with the District Court that it was inadequate. Id., at 2088-89.

369 Id., at 1345.

370 Id., at 1346.

371 Id.

372 Id., at 1353-1354.

373 492 F.2d. 1123 (5th Cir. 1974).

374 Id., at 1135.


381 Id., at 835.

382 Id.

384 Id., at 481.
386 384 F.Supp. 916 (N.D. Miss. 1972), aff'd, 492 F.2d 1123 (5th Cir. 1974).
387 Id., at 927-928.
388 Id., at 928-929.
389 Id., at 929.
391 See, testimony of Senator Jackson, quoted in Calvert Cliffs' Coordinating Committee v. AEC, 449 F.2d 1109, 1113 n. 9 (D.C. Cir. 1971).
392 492 F.2d 1123 (5th Cir. 1974).
393 Id., at 1133.
394 Id.
397 Id., at 758.
399 Id., at 1968.
400 Id.
401 359 F.Supp. 1289(S.D. Tex. 1973). The decision was reversed on other grounds by the Fifth Circuit in Sierra Club v. Callaway, 6 BNA Environment Reporter Cases 2089 (5th Cir. 1974). The reversing court agreed that the EIS was inadequate but didn't analyze the details of the EIS. Id., at 2088-89.
402 Id., at 1381.
404 487 F.2d 814 (9th Cir. 1973). Accord, National Helium Corp. v. Morton, 455 F.2d 650 (10th Cir. 1971); Pizitz v. Volpe, 467 F.2d 208 (5th Cir. 1972).

405 487 F.2d 814, 822 n.13 (9th Cir. 1973).


407 470 F.2d 289 (8th Cir. 1972).


409 Id.


413 Id., at 226.

414 Id., at 228.

415 449 F.2d 1109 (D.C. Cir. 1971).

416 Id., at 1115.


418 470 F.2d 289, 297 (8th Cir. 1972).

419 See text supra at n. 19-23.

420 470 F.2d 289, 298, quoting Calvert Cliffs’, 449 F.2d 1109 (D.C. Cir. 1971).

421 Id., at 298-99.

422 Id., at 300.


424 473 F.2d 346 (8th Cir. 1972).

425 Id., at 353-54.

426 492 F.2d 1123 (5th Cir. 1974).

427 Id., at 1141.

428 6 BNA Environment Reporter Cases 2080 (5th Cir. 1974).

429 Id., at 2085.

430 Id. The court cites its earlier decision in Environmental Defense Fund v. Corps of Engineers, 492 F.2d 1123 (5th Cir. 1974), which is discussed in text supra at n. 426.