Will Rogers was in England during a period in World War I when the U-boat had almost completely blockaded the British Isles. One evening he attended a dinner party with many generals, admirals, and lords of the Admiralty who spoke only of vast and expansive plans, broad policies, and major decisions. When the meal was completed and the ladies had withdrawn, he announced, over brandy and cigars, that he had an answer to the most difficult problem of the day, the U-boat. This immediately captured the attention of everyone and Will was pressed for his solution. He said it was simple—"Just heat up the ocean until it's so hot they have to come up, then sink them with the guns of the Royal Navy." "But how would you heat up the ocean?" scoffed a senior admiral. Will answered that he was a policy-maker and he would leave that to the technicians.

Some environmental policy-makers have left the engineers and planners in much the same dilemma that Will Rogers left the technicians of the Royal Navy. We have been called on to protect the environment without always having a clear procedural approach that will produce practical actions or solutions.

Although not formally documented in the past, many measures have been used by highway engineers to minimize harm to the environment. Headwalls and sodding to prevent erosion, coordination and communication with other agencies, and bridging to protect streams and aquatic life are but a few of the long existing practices. The passage of the National Environmental Policy Act has required new documentation; a public statement of environmental impacts is now required for all actions that significantly affect the quality of the environment. Since then, a great deal of effort has gone into establishing procedures to ensure that not only the letter of the law but the spirit as well is carried out. This has been a good development. We hope that our experience has now brought us to a point where the procedures are generally in order and we can turn our efforts to producing quality environmental statements.
What is a good environmental statement? What information should it contain? The number of answers to these questions is proportional to the number of people affected by a project and the number of agencies that review the statement. The Federal Highway Administration has promulgated procedural guidelines in PPM 90-1. (Other memoranda will contain guidelines for noise and air pollution.) These are supplemented almost weekly by letters from the regional or divisional representatives suggesting inputs of all magnitudes of importance, ranging from those dictated by continuing legal action to clerical considerations such as the type of front cover to be used on the report. Comments from the reviewing agencies are difficult to anticipate, for they vary in many ways.

At times, there is a conflict in the opinions of various agencies, and sometimes a field office that assisted in the preparation of a statement will provide a different viewpoint from that of the central office of the same agency. Central office comments also vary with the background of the reviewer. Some situations call for rather precise comment before a project can get approval by others, such as "the impact that increased population, due to better transportation, will have on the local sewage disposal system." Some comments call for specific highway engineering. Others, such as the air diffusion projections of the Environmental Protection Agency or the corridor location by remote sensor of the Department of Interior or "a highway's acoustical impact on the habits of the dusky seaside sparrow," all call for basic but highly complex research. Problems with other agencies could normally be reduced by an early interdisciplinary involvement in the preparation of the statement.

Most governmental agencies do not have the necessary personnel or resources to support this role and prefer to wait and review the draft statement. The tone and length of the environmental statement are problems. It is a technical document that must be usable throughout the planning, design, and construction phases and stand up to technical scrutiny outside the agency. Yet, it must be clear to the layman whom the project ultimately affects. The environmental statement must address the total impact in a thorough and objective manner and should not arbitrarily group or piecemeal projects in a manner that would tend to cover up matters of environmental concern.

The reviewers from Washington and even those at the regional level indicate that too many statements are being submitted and that these statements contain too much unnecessary information. It is, therefore, very difficult to describe how to write an environmental statement that will satisfy all the diverse and varying requirements. Regardless of experience, it is even difficult to write one environmental statement that will not at some time be termed inadequate in some area. The unfortunate outcome of this whole process is that it easily becomes an exchange of words with little change in the actual environmental impact evaluation itself.

What then is a good environmental statement? It is a statement that

1. Complies with not only the letter but the spirit as well of the National Environmental Policy Act;
2. Follows Federal Highway Administration directives and supplementary instructions;
3. Anticipates and addresses the concerns and comments of other federal and state agencies through an interdisciplinary approach to the project;
4. Not only speaks to what is planned but is a commitment that the environment will be protected throughout the planning, design, construction, and maintenance phases of the project;
5. Sincerely determines and evaluates negative and positive environmental, social, and economic benefits and costs of the project and attempts to objectively weigh these factors as they impact on the final course of action;
6. Is a technical report but is clear enough for a layman to understand;
7. Satisfies the local population that the environmental impact is fully considered and the highway decision is made in their best interest;
8. Addresses the total impact of a project or series of related projects; and
9. Does not burden higher reviewing authority with its diffuseness and verbosity.
What is the answer, then, to these seemingly contradictory requirements? My suggestion is that state transportation agencies develop environmental specifications that stipulate the department's policy and procedures in as many general environmental areas as possible. All concerned state and federal agencies, academic institutions, and citizen conservation groups should provide inputs in the formative stages of this policy. This input should be concurrently evaluated from an engineering, planning, and cost viewpoint; the cost evaluation should include the availability of federal funding in implementation. Then, an attempt should be made to resolve differences and formulate policy. In those areas where general agreement on policy cannot be reached through sincere interagency and public communication, the highway agency must reach its own decision, support its position adequately within the text of the report, and accept whatever the outcome may be.

When these general environmental specifications are promulgated and approved, all people concerned, both within and outside the transportation agency, will know how an environmental situation will be resolved. The environmental evaluation will consist of ensuring that all areas of environmental concern are identified. The environmental statement will briefly refer to the environmental specifications on the points identified, describe any deviations from the general specifications and the necessity for doing so, and discuss in depth those not covered by the specifications. All of this should provide a relatively impartial means to evaluate the alternatives. The various trade-offs discussed and perhaps the final decisions reached should be less vulnerable to the charge of partiality as they would be based on a previously approved and documented doctrine.

The iconoclast H. L. Mencken once said, "To every problem there is a solution that is simple, neat, and... wrong." To save my suggestion from the cynic's judgment, I must point out what a complex and difficult task the proposed specification writing will be. However, a form of policy reference is not entirely new. There are several areas now in the environmental statements where the same standard phrases, in reality, reiterate a form of policy that satisfies most reviewers. In Florida examples are

1. A reference to the right-of-way acquisition relocation plan and its standard procedures;
2. A reference to Section 104 of the standard Florida construction contract that covers burning, sodding, and other construction procedures that protect the social and natural environment; and
3. A reference that the project location has been cleared through the state archaeologist for historical considerations, although perhaps this should be expanded to include the department's informal policy of stopping all excavation when unexpected historical finds are exposed in normal construction.

My suggestion is to try to cover many more environmental areas with decisions already postulated in the form of policies that can be appended to but not made a part of the text except by reference. Also, I might add there is an opportunity right now for this doctrine to be established and approved through agencies of the governor and public hearings as part of the federal action plan requirement.

What is a good environmental statement? Good environmental evaluations should be made by qualified professionals and technicians consistently applying the established policy and specifications of an environmentally oriented organization. Good environmental statements are automatic by-products of good environmental evaluations.