

different from that which has concerned public health officials over the years. When decisions must be made as to allocation of funds and resources including the personnel element, some rank ordering of the projects and programs must be made.

Environmental Pollution abatement ought not to be considered as an end unto itself. There are other elements of ecology which are related to the larger needs for resource utilization. In the long range view, the degree of environmental quality established as an objective depends upon the understanding and desires of the general public. In the case of those situations where there is an obvious cause and effect relationship upon health, or some desirable attribute of the environment, these desires may be readily translated into either regulation or statute, or be achieved through voluntary action. In other instances, this may be far more difficult. In some situations, because of a lack of full understanding, the objectives and the rules by which they are applied may be of such a nature as to be economically unreasonable. Those who are truly knowledgeable about ecology and the specialized considerations therein have an increasing responsibility to ensure that there is an interchange of information and knowledge with their colleagues in the various disciplines and to the public. Doctor Barry Commonner's remarks several years ago on another but related subject are pertinent to this:

"What appears to trouble the public is not that political opponents disagree, but that the opinions of scientists have been marshalled on both sides of the debate. A natural result has been confusion on the part of scientists, statesmen, writers and the public at large. Scientists as students and interpreters of nature can explain to the public what consequences may result from a given situation. They should not attempt to form public opinion on wisdom of enduring whatever these consequences are. . . . Moral judgment is not the exclusive prerogative of scientists, and they cannot claim any more competence than those of equally informed citizens on such values."

The Department of Defense is aware of the need for making available information derived as part of its investigative efforts. Although sometimes the requirements of military security necessitate prudence and care, action is taken to provide for an interchange of professional data with civilian colleagues; and through our information program.

INDUSTRIAL RESEARCH

Enforcement procedures

More specific comments on the question of enforcement legislation and regulations are contained in the remarks under "The Scientific Basis for Pollution Policy." Considerable attention is being given, in accordance with Executive Orders, to the question as to what extent the current requirements affecting the Federal establishments for pollution abatement can be levied upon industrial contractors. It has been our experience that many defense industries are as concerned about the problems of pollution abatement arising from specialized industrial activities as are the military departments. It is worthwhile to point out that in a number of instances such as in the propellant manufacturing program, contract provisions have included the necessity for compliance with appropriate environmental pollution abatement procedures and for the development of appropriate technology where there were known gaps in the state of knowledge.

Any regulatory program is necessarily dependent upon some means of measure of compliance, and this in turn depends upon techniques for surveillance. Concurrent with development of industrial processes, and waste control equipments, there should be effort to provide the necessary detection and warning devices. Standardization of collection and analytical techniques has been found to be necessary, if major differences between individual agencies and industries are not to result. In the case of the assessment of ozone production associated with certain military test operations in the Los Angeles area, a major effort was undertaken to ensure that the methodology used by the defense contractor involved was compatible with the regulations of the Air Pollution Control authority, and with the technology utilized by that Department in their own measurements.

Industry and public relations problems

The Department of Defense has had some degree of experience in working with its contractors in certain aspects of environmental pollution problems. In particular, we have had some experiences in the West Coast area on the problems