Many individual States have enacted legislation for this purpose in the past, and are currently considering revisions. It is unfortunate that S. 3132 does not recognize this. Recognition of the need for coordinating efforts, and for rectifying problems of long standing, has caused several Federal agencies to take action regarding the matter of surface mining and the environment.

This action has been directed mainly at the problem of acid-mine drainage, both by individual Federal agencies such as the Federal Water Pollution Control Administration, and by joint efforts such as the demonstration projects involving the FWPCA, the U.S. Bureau of Mines, the U.S. Geological Survey, and the States of West Virginia and Pennsylvania. In addition, the Federal and State agencies have been active in the reforestation and reclamation field.

The U.S. Department of the Interior report, "Surface Mining and Our Environment", published a year ago, recommended that we (1) prevent future damage and (2) repair past damage, and outlined the need for both fundamental and applied research to "insure technological progress in mined-land reclamation and conservation". Areas in which fundamental research should be expanded were listed (Report, p. 107) to include: (1) acid formation, (2) nutrient deficiency, (3) bacterial action, (4) ground-water hydrology, and (5) classification of waste or spoil-bank materials. The report noted (p. 107–8) that applied research areas which should be investigated include: (1) improving mining equipment and procedures, (2) slope stabilization, (3) erosion control, and (4) prevention of acid-water production. The report also recommended (p. 108) that demonstration sites should be provided to: (1) explore research possibilities, and (2) educate personnel in effective mined-land conservation techniques.

Senate Bill S. 3132 would provide the authority to put some of these recommendations into practice. This legislation provides that State plans for regulation of surface mining should be formulated, designed to promote a balance between natural resources value and environmental values. It provides for: (1) a system of permits based on mining plans, (2) control of adverse effects of surface mining, (3) reclamation of disturbed areas, (4) evaluation of environmental changes, and (5) adequate funding and staffing for the program, including enforcement of regulations. The Indiana University Water Resources Research Center supports these provisions.

With regard to another provision, however, that State plans must be submitted to the Secretary of the Interior for approval, one might question the advisability of such apparently complete Federal control over regulatory matters as specified in Sections 8 and 9 of S. 3132, which belong, first of all, to the States. It is true that the bill provides ample mechanisms for the States to take the necessary positive steps that would avoid such heavy reliance on the Federal government, and these provisions should assure that we do continue to move forward toward the goal of the best reclamation of surface-mined areas.

Even if it is held advisable that such Federal control should be exerted, we seriously question the two-year time limitation for the State to develop its approved regulations, else the Secretary of the Interior will develop his own set for that State. Our question, here, is that our present state or knowledge of many facets of the relationship of surface mining to the environment is not sufficient to permit adequate regulations to be written regarding those variables; this knowledge is being provided by current research, but often such research not only modifies previous views but may even threaten the existence of some of our sacred cows. Thus any set of regulations, whether Federal or State, should be looked upon as only provisional or temporary, and subject to modification as the results of research become available.

Accordingly, I should like to urge the Committee to consider providing for a national biennial review of research results, with the view of possible revision of the State laws and regulations of surface-mining reclamation.

Several examples of the "sacred cow" mentioned above could be cited in the area of hydrology as related to surface mining, but I will mention only a couple dealing with quantity and quality of water, as a result of our research by Mr. Don M. Corbett of the Indiana University of Water Resources Research Center. The previously cited Department of the Interior report noted (p. 64) that our work in Indiana had shown that surface-mining activity had a beneficial hydrologic effect by continuing to provide streamflow during dry weather when nearby streams in unmined areas were dry for periods of several weeks (Don M. Corbett, "Water Supplied by Coal Surface Mines". Indiana University Water Resources Research Center, Report of Investigations No. 1, 1965, 67 pages). This observation was corroborated in 1967 in western Kentucky by the U.S. Geological Survey's