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RESERVE MINING, VINYL CHLORIDE CASES PUT ENVIRONMENTAL HEALTH IN A CORNER:

The Court of Appeals decision in the Reserve Mining case and the preliminary results of EPA's monitoring of the air and water around vinyl chloride manufacturing plants, taken together, would prompt a casual observer to wonder whether all of the talk about environmental health hazards is a put-on.

In rejecting a lower court's finding of a health hazard in the Reserve case, the Court of Appeals ruling called it a lack of a "quantifiable health hazard." Similarly, the monitoring of VC and PVC produced no evidence in EPA's survey of an imminent hazard to health of the general public.

Where does this leave EPA, as a regulatory agency charged with developing standards for public protection, when the health hazard cannot be fully documented in court and where the data is more speculative than real, where the danger may be in the future rather than clear and present? Philosophically, much of the uncertainty stems from the nature of scientific inquiry itself and some of it proceeds from the nature of environmental health, where the clinical effects may not be evident for years (as distinguished from virology or bacteriology, which produces acute illness) but which may be just as important.

Environmental health offers a unique opportunity for preventive care in ways which are not open to other medical specialties, and EPA and HEW and other agencies should continue to exploit it even while recognizing that what tantalizes scientists may not always satisfy the burden of legal proof.

Note: We may hear more on this dilemma at the important annual educational conference of the National Environmental Health Association in Cincinnati June 24-27. EPA Administrator Russell Train, Sen. Robert A. Taft (R-Ohio) and key leaders in the field are among the speakers.

MUSKIE TO HOLD UP STRELOW, AGEE CONFIRMATION UNTIL GREENFIELD SUCCESSOR NAMED:

Sen. Edmund Muskie, reported to be extremely displeased at what he considers to be EPA's lack of independence, has decided to postpone the hearings of the Senate Public Works Committee on confirmation of Roger Strelow and James Agee to be Assistant Administrators for Air and Water Programs, respectively, until a successor to Stanley Greenfield as Assistant Administrator for Research and Development is named.

He wants to consider all three positions at one time because he considers them to be interrelated, and he wants to use the occasion for a heated discussion on what he believes to be deficiencies in EPA's administration from Russell Train all the way down the line, and to satisfy himself that Strelow and Agee and Greenfield's successor (whoever he might be) will carry out the air and water laws vigorously.

Muskie is said to be teed off at Train and his colleagues for several instances of what he considers subordination of environmental missions to larger political goals. Leon Billings, who heads a staff investigation of the inadequacies, told us that "Train seems to be more responsive to the enemies of environment than to his strongest supporters." In the former category, he includes Roy Ash and Rep. Jaime Whitten (D-Miss.); in the

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latter category, all the members of the Senate Public Works subcommittee on environment, led by Muskie.

The most recent example of what Muskie considers to be duplicity by EPA governs the proposed transfer of research and development funds from EPA to the proposed Energy Research and Development Agency. He considers he was misled by EPA on this point and succeeded in defeating an amendment to an appropriations bill by Sen. Hiram Fong (R-Hawaii), 50-40, which would have authorized such transfer on grounds of non-germaneness.

This is the second time Muskie has protested against what he considers legislating through the appropriations process. Previously, he blasted Train for what he considered to be a cave-in to Rep. Whitten, chairman of the House Appropriations subcommittee, who set aside \$5 million for EPA to file environmental impact statements.

Muskie has also expressed displeasure at the thermal pollution standards proposed by EPA pursuant to the water pollution legislation. He considers them a cop-out and responsive only to the utilities. And, finally, he is not happy about Train's acquiescence to provisions of the Clean Air Act amendments proposed by OMB.

Note: If the nomination of Greenfield's successor is delayed much longer and if impeachment is voted, the prospect is that the confirmation hearings could be delayed beyond Labor Day or even put off until after the elections.

EPA ASKS JUSTICE DEPT. TO APPEAL RESERVE MINING CASE TO SUPREME COURT:

EPA has formally asked the Justice Department to appeal to the U.S. Supreme Court the recent decision of the 8th U.S. Circuit Court of Appeals disagreeing with a lower court's ruling closing down the Reserve Mining Co. plant in Silver Bay, Minn., because of an imminent health hazard resulting from dumping of wastes into Lake Superior.

Instead, the three-judge panel of the Appeals Court directed the U.S. District Court to work with Reserve and other parties over the next 70 days to develop a system of land disposal of the wastes and to report back to the appeals court. U.S. District Court Judge Lord had ordered the plant closed because of findings of asbestos-like particles in the tailings which might be carcinogenic.

The letter from Alan G. Kirk II, Assistant EPA Administrator for Enforcement and General Counsel, to Wallace H. Johnson, Assistant Attorney General of the Land and Natural Resources Division, illustrates the strategy of EPA and its viewpoint on the subject. Dated June 11, it says:

"We have reviewed the decision of the 8th Circuit Court of Appeals and are naturally disappointed at the court's decision to continue its stay of Judge Lord's order for at least 70 days.

"While we were pleased to see that the court is apparently convinced that the discharge from Reserve's mining operations must be permanently abated for environmental reasons, the decision on the health issue is, in our view, incorrect for two reasons. First, it fails to acknowledge significant testimony presented during the trial which does support a finding that there is a serious health hazard. Second, the court's standard of proof, as articulated on pages 23-25 of the opinion, establishes an overly restrictive burden for the government, or any other party, in cases such as this where scientific knowledge is not yet complete, but there are significant indications of adverse health impact.

"In discussing what response the Federal Government should make to this decision, I and other EPA staff members have recognized the procedural problems attendant with any appeal to the Supreme Court and the limited possibility that a reversal of the Circuit Court's decision could be obtained. However, EPA remains convinced that a serious health problem does exist in that area, requiring prompt action, which was the basis for our moving for a preliminary injunction in the District Court. Moreover, it is our understanding that the plaintiff States (Minnesota and Wisconsin) intend to seek relief from the Supreme Court, in which case I believe that the Federal Government's decision should be presented to the Court in conjunction with the other plaintiffs in this case.

"Therefore, I request that you take such additional steps as are available, including requesting action by the Supreme Court to override the decision of the 8th Circuit and reinstate the District Court's order terminating the discharge."

EPA URGES CHEMICAL INDUSTRY TO REDUCE VINYL CHLORIDE EMISSIONS IN AIR:

Although its preliminary monitoring of the environment around major chemical and allied manufacturers found no immediate or imminent health hazard to the public living nearby, EPA nevertheless strongly urged

them to minimize the discharge of vinyl chloride gas into the environment as the most prudent measure possible.

After meeting with representatives of 29 companies which manufacture vinyl chloride or polyvinyl chloride resin, EPA Administrator Russell Train recommended prompt tightening and improvement of operating procedures in the manufacturing plants and suggested early consideration of long-term process modifications.

He urged each company to begin or continue monitoring emissions from its plants to provide more extensive information on the quantities of vinyl chloride entering the environment. EPA will support additional monitoring in cooperation with state and local governments.

There is no current standard for vinyl chloride in ambient air. In the occupational setting, where exposure to vinyl chloride has been linked to 19 known cases of angiosarcoma, or cancer of the liver (including 14 fatalities), the Occupational Safety and Health Administration has proposed a permanent standard which would reduce in-plant exposure to "no detectable levels" by current analytical procedures. A hearing has been set in Washington June 25 on that proposal.

The preliminary monitoring results by EPA indicate that the levels of vinyl chloride in the ambient air near the plants fluctuate sharply, apparently due to the periodic opening of PVC reactor kettles, accidental plant discharges, variations in the production process and meteorological conditions.

Although almost all of the samples collected contained detectable levels of vinyl chloride, more than 95 percent of the samples showed amounts less than 1 ppm. At several of the chemical complexes a number of individual air samples showed more than 1 ppm vinyl chloride. A one-time high of 33 ppm was obtained at one site, although repeated sampling at this site indicated that this level was unusual. The average at this site was in the range of 0.5 to 1 ppm, EPA said.

Most of the air sampling was done within one-half mile of the property lines of the plants. In one case a level of 3.4 ppm was recorded at a distance of three miles from the plant. The average of several readings at this site was approximately 0.5 ppm.

Here is a list of VC and PVC manufacturing complexes monitored by EPA during May: B.F. Goodrich Co., Louisville; Borden, Inc., Leominster, Mass.; Goodyear Tire & Rubber and Dow Chemical, both in Plaquemine, La.; B.F. Goodrich and American Chemical Corp., both in Long Beach, Calif.; Uniroyal and Robintech, Inc., Painesville, Ohio; Stauffer Chemical Co. and Diamond Shamrock Corp., Delaware City, Del.; Tenneco, Inc., Flemington, N.J.

Water effluent samples were also collected at the PVC plant of Union Carbide in South Charleston, W. Va. Sampling was attempted but was infeasible due to limited time and equipment difficulties at the PVC plants of Firestone Tire & Rubber Co. in Peryville, Md. and Pottstown, Pa.

Very limited air sampling was conducted in the Houston area but in view of the inadequacy of this activity, the sampling effort in this area is being continued. They included Diamond Shamrock, Deer Park, Tex.; Shell Chemical, Deer Park; Tenneco, Houston; Ethyl Corp., Pasadena, Tex.

Here is a list of VC and PVC manufacturers contacted by EPA: Air Products and Chemicals, Inc.; American Chemical Corp.; Borden Chemical, Inc.; Continental Oil Co.; Diamond Shamrock Chemical Co.; Ethyl Corp.; Firestone Plastics Co.; General Tire & Rubber Co.; B.F. Goodrich Chemical Co.; Goodyear Tire & Rubber Co.; Great American Chemical Co.; Hooker Chemical; Keysor-Century Corp.; Monsanto Co.; National Starch & Chemical Corp.; Olin Corp.; Pantasote Co. of New York; Robintech, Inc.; Stauffer Chemical; Tenneco Chemicals; Union Carbide Corp.; Uniroyal, Inc.; Allied Chemical; Dow Chemical; Monochem, Inc.; PPG Industries, Inc.; Shell Chemical; Georgia-Pacific Corp.; Certain-Teed Products.

EPA also monitored water effluents, and levels varied considerably, depending on the in-plant handling of wastes and the treatment of wastewater. The highest level for wastewater leaving the plant site was 20 ppm. More typically, levels of 2 to 3 ppm were found, EPA said, commenting:

"There is no currently available evidence to indicate that vinyl chloride is present in detectable levels in drinking water. Not unexpectedly, the levels of vinyl chloride entrapped in sludge and other solid wastes from the reactor kettles ranged from 100 to, in one case, 3,000 ppm."

"At the present time," Train said, "there is no basis for considering that the levels of vinyl chloride detected in water discharges or in sludge, if handled properly, are hazardous to human health or to aquatic life."

As a precaution, he said, EPA has initiated programs to gather further information concerning vinyl

chloride levels in effluent water, drinking water and sludges; the persistence of vinyl chloride in water; and the effects, if any, of vinyl chloride on aquatic organisms.

Note: In view of the EPA preliminary monitoring showing no demonstrable health hazard to the public from vinyl chloride emissions into the environment from plants, it seems unlikely that the Consumer Products Safety Commission could justify any immediate product recalls.

CONGRESS ENACTS LEGISLATION EXTENDING DEADLINES FOR AUTO EMISSION STANDARDS:

Congress has finally approved legislation which would give the automobile manufacturers at least a one-year delay in meeting the emission requirements of 1976 models. They would be required to meet the standards set by the Clean Air Act for 1975 models, but the 1976 model requirements would not go into effect until 1977. The law also permits manufacturers to seek a one-year extension beyond that.

In addition to exhaust emissions, the legislation also relaxes clean-air rules for electric utilities which switch from oil to coal. However, Congress would not permit any relaxation of primary standards protecting public health. Power plants which convert to coal could have until 1979 to bring emissions back into compliance with clean air standards.

Another provision in the bill prohibits EPA from imposing parking surcharges as part of transportation control plans designed to bring cities into compliance with clean air standards. President Nixon is expected to sign the legislation. He previously vetoed a bill which combined the clean air provisions with one ordering an oil price rollback during the gasoline shortage.

ADVISORY COMMITTEE FINDS CRISIS IN AIR POLLUTION MANPOWER TRAINING:

EPA's National Air Pollution Manpower Development Advisory Committee has reported that a crisis exists in the training program because of severe fund cutbacks and related policies. The report was presented by the committee chairman, Dade W. Moeller of Harvard School of Public Health, to the annual meeting of the Air Pollution Control Association in Denver.

The report was based on a series of surveys during the last two years. As stated by Moeller, the committee has found that:

1. The existing Federal air pollution manpower development program fails to address many of the problem areas needing attention, and attention to others is woefully inadequate. For example, short-term technical training is being hampered by policies such as the assessment of user charges, and the need for qualified technicians, such as those who maintain air pollution control equipment on autos, is being almost totally neglected. Far too little effort is also being directed to career development opportunities for EPA employees.

2. Because of funding reductions, many important subject areas are not being addressed by short-term technical courses currently being provided by EPA for personnel in state and local agencies. Such areas include training in the management of air pollution control programs, manpower planning, development of enabling legislation, instruction in the public hearing process, preparation and evaluation of environmental impact statements, quality assurance for air pollution monitoring activities, and programs related to public attitudes on environmental problems.

3. A survey of 21 universities which recently received, or currently receive, financial support through EPA Air Pollution Training Grants showed that:

- (A) The momentum and enthusiasm which formerly characterized most graduate programs in air pollution control are rapidly being lost.

- (B) Enrollment of doctoral students in air pollution control has decreased by 50 percent in the last three years, and similar decreases are projected for Master of Science candidates within the next few years. Students being hardest hit are those from low income and minority groups.

- (C) Contrary to predictions by EPA officials, funds available through research contracts and grants are not replacing those lost via training grants. Only six Master of Science students are being supported through contracts during the 1973-74 academic year, and almost half of the 21 universities surveyed indicated they currently receive no EPA research contract or grant funds.

- (D) The total amount of funds available for air pollution research for the reporting universities was lower during the 1973-74 academic year than it has been for any of the last five years. Only three universities reported that their research budget had been supplemented via university or state appropriations, and 57 percent reported

"In the interest of public health and safety, and in view of the mounting evidence of the biological hazards of the chemical, it would appear urgent that EPA take steps immediately to cancel the use of Aldrin/Dieldrin before the new manufacturing period and planting season begins," Nelson wrote.

MCA TO ADMINISTER FOUR NEW RESEARCH PROJECTS ON VINYL CHLORIDE:

The Manufacturing Chemists Association will administer four new research projects to investigate further the relationship of carcinogenicity in animals due to vinyl chloride and its possible relationship to man.

The studies will be financed by U.S. producers involved in the synthesis and polymerization of vinyl chloride. The program includes a study of animal metabolism; a study of teratogenesis; animal chronic inhalation studies at concentrations below 50 ppm in an effort to identify a "no-effects" level; an acute inhalation experiment in which animals will be subjected to a massive exposure simulating conditions which might be experienced by a community exposed to a tank car rupture in a transportation accident.

The studies on animal metabolism and teratogenesis will be conducted by Dow Chemical Co. The inhalation investigations will be carried out by Industrial BIO-TEST Laboratories, Inc., which has been conducting vinyl chloride exposure studies in animals under contract to MCA since February 1, 1973.

Previous studies have shown that animals experienced angiosarcoma when exposed to 50 ppm concentrations.

"The funding companies, which are supporting current research, and MCA consider it essential that the program be expanded to determine the conditions necessary to assure the safety of workers involved in the manufacture and use of the products and of the plant neighborhoods in which they are made," said the MCA statement.

The scientific information developed from this program "will be disclosed publicly without restriction," MCA said. Technical reports will also be developed and made publicly available on work practices, industrial hygiene monitoring and analysis and the medical surveillance of exposed workers, it said. All results of the studies, estimated to cost a minimum of \$400,000 to \$500,000, will be reported to appropriate government agencies, it added.

UNUSUAL RESEARCH PROJECT STUDIES ATTITUDES OF RESIDENTS NEAR LAKES:

The University of Michigan Biological Station near Pellston, Mich., has undertaken the unusual assignment of trying to assess the attitudes of residents around lakes towards the threat of environmental pollution and whether they are willing to participate in the kinds of planning decisions necessary to maintain the quality of the lakes.

Situated between Burt and Douglas Lakes, the 10-acre facility is the world's largest inland field station for teaching and research in biological science.

"Our over-all goal is to assist forthcoming land-use planning and management efforts in northern Michigan," said Mark W. Paddock, assistant to the director of the Station and manager of the new program. "We believe that if such efforts are to succeed, they must be based on more than just an ecological understanding of environmental problems; they must be based on an understanding of the people in the region and should improve their general welfare."

During the summer data will be gathered, primarily through interviews, on those residing near the eight large lakes and several smaller ones in Emmet and Cheboygan counties. Information will be sought on the residents' physical environment, such as type of dwelling and neighborhood, and on their social environment, such as attitudes towards existing land use regulations and satisfaction with water quality of the lake. The study is supported by a \$335,000 grant from the National Science Foundation and will be under direction of Robert W. Marans, senior study director in the University of Michigan's Institute for Social Research and associate professor of architecture.

\$340,900 CONTRACT AWARDED FOR STUDY OF BART'S EFFECTS ON ENVIRONMENTAL QUALITY:

Effects of the Bay Area Rapid Transit (BART) system on environmental quality in the San Francisco Bay area and its impact on the lives of people living near the regional rail line will be evaluated under a \$340,900 contract to the San Francisco Bay Area Metropolitan Transportation Association and its subcontractor, Gruen