

needed to build our world--become a handicap in the emotional world that Naisbitt (1) calls "participatory democracy." Unfortunately, participants in democratic hearings are often as limited in their capacity to deal with complex technical aspects of mineral extraction as are the technicians in dealing with emotion and politics.

SUMMARY

Obtaining a permit to operate a new mineral aggregate resource is a complex process requiring a good company record and reputation, along with a site that has a minimum number of potential environmental problems. A carefully integrated plan for obtaining

and summarizing information and for presenting that information to the public is essential in order to reduce problems at public hearings. If the whole process is executed well, and if there is a little luck as to the nature of the local population, a public hearing may go smoothly and a permit to mine may be granted.

Is there any suggested course of action in the event luck is not with the applicant?

REFERENCE

1. J. Naisbitt. Megatrends. Warner Books, Inc., New York, 1982.

Public Hearings and the Mine Permitting Process

JAMES R. DUNN and MICHAEL J. HART

ABSTRACT

Few situations are more difficult for the mineral aggregates producer than public hearings. By nature most mineral producers are men of action, and debating and politics are not normally their greatest strengths. Yet supplying mineral aggregates for construction, so critical to the welfare and economy of the people of the United States, must be carried out by mineral producers in an environment that is intensely political and often highly emotional. This environment tends to evolve toward a polarized atmosphere in which decisions in the true public interest may be virtually impossible. The cost to the United States of not managing or mismanaging mineral resources is enormous, and can be measured in billions of dollars per year.

The euphoria that mineral producers feel after a happily uneventful public hearing is not common, because uneventful public hearings for mining permits are not common. How the environment of public hearings commonly evolves is described in this paper. Some estimates of the cost of this environment in terms of the general public are summarized, and some possibilities for reducing the magnitude of such problems are proposed.

This paper also serves as an introduction to two papers that review the approaches to solve problems of mineral resource development and the environment that were taken in California and New York.

PUBLIC HEARING ENVIRONMENT

The public hearing is the essence of "participatory democracy" as defined by Naisbitt in his book "Megatrends" (1). Yet the effect of the public hearings process may not be truly democratic, in that the participants often represent an insignificant proportion of the populace. There is considerable doubt that the general public is well served by the process, with respect to mineral aggregate production. It is not clear that the local people potentially affected by an aggregate operation are well served or in agreement with decisions based on the hearing process, or that regional aspects of mineral planning have ever been considered. A short review of the hearing environment is instructive.

Those who participate in the hearing are most often the people who strongly oppose the permit that is the subject of the hearings. Moderates often do not attend, do not speak up if present, and do not follow the process through to its conclusion.

Michael J. Hart of Flatiron Materials Company has suggested that opposition to a permit or zoning change tends to have an evolutionary pattern. Initially people meet because of what they visualize as a potential threat to their quality of life. Many of the people simply wish to be informed about the facts. Gradually, those who conclude that they will not be affected drop out of the opposition group. As time goes by the group often tends to become radicalized or polarized; that is, those who could be described as opposed, yet willing to work toward a solution acceptable to all, ultimately drop from or are driven from the group by the hard-core opposition.

The radicalization or polarization process is far from being restricted to hearings involving mine permits, and motivations may be quite unselfish. To cite a parallel example, hearings involving evalua-

tion of the risk from asbestos in public schools are attended by teachers, school board members, and parents. All of them want one thing: the best that they can afford for the welfare of the children. Yet the radicalization or polarization process may be very much in evidence. A few people have made up their minds, with or without evidence, as to the nature of the danger and what should be done about it. They have fixed opinions, generally obtained through brief and lurid media accounts, and those opinions can rarely be altered by facts or reason. Too often hysterical participants carry the day and schools spend large sums of money to remedy a problem that may in reality be minor.

Hart has further observed that as the aggregate permitting hearings continue, the crowds tend to dwindle, perhaps from several hundred at the first couple of hearings, down to a handful during the last few. Although the discussions involve air pollution, noise, blasting damage, effects on groundwater, reduced property values, and increased traffic, these are often not the real issues, but names by which people describe the larger issue at hand, which is the perceived threat to their quality of life.

Each of these issues is highly technical and does not lend itself to short seductive media reports. Yet the producer has usually spent substantial time and money in regulatory compliance in these areas. His information is apt to fall on deaf ears.

The processes so essential to democracy itself--mediation and compromise--are often virtually impossible in such an environment. In the eyes of the hard-core opposition, there is often no alternative to preventing the operation for whatever reasons that they may find.

Perhaps more important, politicians who must make decisions are aware that the formidable energies of the hard-core opposition may likely be redirected toward defeating them in the next election. Making sound decisions in the best interest of all of the people they represent is difficult for politicians. Decisions made in the best interest of the greater public, beyond the local people, are probably only accidental. Certainly, in the field of local mineral resource management, the implications to that greater public are rarely considered and, if considered, are not a major component in any deliberation.

A recent (1984) election in the town of Rotterdam, New York, a Schenectady suburb, is illuminating. A developer wanted to open a large shopping mall but was fought for years at public hearings. One of the candidates in the election ran on the plank that he had been strongly and actively against the mall. He was defeated in the election by more than a 2:1 ratio. Although the moderates voted their opinions, their voices were rarely heard at hearings, and the impression that most people had (and probably the defeated candidate had) was that most people in the local community were against the mall. The problem is that there is no such thing as a radical moderate; consequently moderates, almost by definition, do not usually get angry enough (or brave enough) to express their feelings at hearings. Impressions gained from hearings, or from media reports of the hearings, may be quite different than the reality.

PUBLIC SUBSIDIZATION OF LIFE-STYLES

Although it would appear to be an ideal democratic forum, the hearing process often may not be democratic in effect. This is especially true because preventing an aggregate operation may be perceived

as a local gain by a limited public, whereas the general and much larger public may suffer staggering losses in terms of costs for materials, increased wear on public roads, increased material consumption, and a larger number of contact miles with trucks (because more truck miles expose more people to whatever problems occur with truck traffic).

In a sense the general public is subsidizing the life-style perceived by a small number of people to be desirable. Several authors have put a price on the amount of this subsidization. For example, in 1962 Hewitt (2) calculated that the increased cost to the people of Toronto would be \$6,500,000 per year if producers of mineral aggregate were forced to move 10 miles farther away because of population pressures. According to Bronitsky and Wallace (3) of Rensselaer Polytechnic Institute, the cost for the New York City area was placed at \$30,705,000 (1970 dollars) per year if better planning was not employed in obtaining aggregates closer to the point of use. In 1983 Dunn (4) found that the cost, as it actually turned out, is about \$32 million annually as of 1982 (1970 dollars). The California Division of Mines and Geology placed the cost of bad resource planning to the people of California at \$17 billion over the 30-year interval from 1970 to 2000 (5). The National Academy of Sciences report by the Committee on Surface Mining and Reclamation in 1980 pointed out that the annual cost in the United States of a single mile extra of average haul distance per ton of aggregate would be \$140 million, or translated to energy, 400,000 barrels of fuel per year (6). In an economic sense, these costs can be called a wealth transfer from the general society to specific small segments of society.

ARE THERE PRACTICAL ALTERNATIVES?

Some sort of alternative to the permitting process as it usually is structured would appear to be warranted, because the long-term interest of the general public is not being addressed. However, the driving force to make major changes in mineral resource management policies is notably weak. John Baden of the Political Economy Research Center in Montana states the reason clearly: "Those who will never receive the products that are not developed are unaware of the causes of the increased scarcity while those not employed in producing goods are equally uninformed regarding their losses."

One alternative system exists and is in constant use: simply set down rules in an unemotional environment in advance of decision making. An action is then considered satisfactory if it conforms to these rules, and unsatisfactory if it does not. A typical example would be restrictions on housing, whereby if a lot and a house to be constructed are within a certain size range, approval of the local land use authorities is automatic. A similar arrangement has been proposed for mining permits in Carroll County, Maryland (7). A proposed zoning ordinance is integrated with a mineral resource overlay (MRO) map, on which is outlined the areas where potentially economic mineral resources are most likely to occur and where they can be developed with minimal negative sociologic, economic, and environmental impacts. Within these areas compliance with a set of environmental regulations pertaining to mining assures that permission to mine will be granted.

Another alternative is to be good enough--and perhaps to be lucky enough--to be able to keep all discussions on an unemotional level. As previously indicated, some mineral producers have, at times, been able to do this. However, the real question may be: Can we allow something as important as our min-

eral resources to be developed only by the few who are skillful enough or lucky enough to be able to handle the problems of public hearings?

The following two papers describe two alternatives at the state level currently being practiced in California and New York State.

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Impact of New York Reclamation Law on Aggregate Source Development

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ABSTRACT

New York State's Mined Land Reclamation Law of 1975 committed the state to the balanced policy of assuring the orderly development of its mineral deposits while mitigating adverse environmental effects of the mining process. A new mining operation requires a permit from the New York State Department of Environmental Conservation (DEC), with the permit based on a mining plan and a reclamation plan. Because the state cannot contravene town land use laws, operating a new property usually requires action also by the town in which the mining is to occur. Thus situations arise in which the state issues a permit but the town does not. However, the state law has proved helpful in that the DEC has a professionally trained staff that understands the mineral industry, its environmental impacts, and their mitigation. The presence of the staff and the advice they give is that of a detached third party that can answer questions with professional objectivity. In the event that the town requests an environmental impact statement (EIS), the DEC helps by supplying a format for the EIS and evaluating it once completed. Although the state does not assure that needed deposits can be developed, the

Mined Land Reclamation Law has made it possible that some deposits have been developed that otherwise may not have been. The DEC has ultimately approved more than 90 percent of the requests for mining permits. However, there are no statistics about the number of mining permits that ultimately have received local approval.

On April 1, 1975, New York State passed the Mined Land Reclamation Law (MLRL). The legislature thereby committed the state to a policy of balance: On the one hand the purpose was orderly economic development of the mining industry to meet the state's needs, while on the other hand the law also protected the environment by requiring the industry to carry out sound reclamation, designed to return the mined land to further usefulness.

Although 4 years passed before the law was implemented in a meaningful way, it quickly produced benefits for both the general public and for members of the mining industry. The presence of a detailed mining law that objectively addressed mining and reclamation issues demonstrated that a balance of economic development and sound environmental practice was feasible. Experience has now proved that the requirements of MLRL actually assist in obtaining local mining permits, zoning changes, or special use permits.