

Appendix K: West Virginia's Governor's Task Force Report

State of West Virginia



Governor's Task Force on Mountaintop Mining and Related Practices

12/2/98

Governor's Task Force on Mountaintop Removal and Related Mining Practices

December 4, 1998

The Honorable Cecil H. Underwood
Office of the Governor
West Virginia State Capitol
Charleston, West Virginia 25305

Dear Governor Underwood:

I am pleased to submit the following report of The Task Force on Mountaintop Removal and Related Mining Practices and the Impact on the Economy, the Environment and the People of West Virginia. While it is being submitted three days later than your requested reporting date of December 1, 1998, we are confident that it is a report that will serve the people of West Virginia well. I would note that one member, John McFerrin, was not present but sent a statement commending parts of the study but opting not to vote in favor of the report because it did not call for the banning of this type of large scale mining. Charles Jones also was absent. All of the other members of the task force were present and voted in favor of the report.

This report consists of four parts. Three chapters report on the findings and recommendations regarding this type of large scale mining on the economy, the environment and the people of West Virginia. The other chapter is an introduction, summary and

consolidation of the 22 different recommendations of the task force.

The 20 citizens of West Virginia you appointed to this task force on June 5, 1998 were diligent in performing their duties. They took the task seriously, their attendance was excellent, their approach was sincere and their conclusions are well formed, based on the best information available at the time. While all task force members took their responsibilities resolutely, I would particularly commend committee chairs Larry George, Betsy Dulin and Lloyd Jackson. All three are attorneys, two are civil engineers, one is a legislative leader, all have many years of relevant experience and appropriate expertise and all were diligent workers and leaders. We could not have completed this report without their leadership and hard work.

All meetings of the task force and its three committees were held as public meetings and properly noticed as such in the office of the Secretary of State. There were more than a half-dozen public meetings which more than 1,000 citizens attended and during which more than 100 testified. Coal interests, environmental groups and governmental officials were invited to submit position papers to the various committees. Many papers were submitted over the period of the study and are shown in the bound addendum to the task force report.

The recommendations of the three committees were reported in draft form in public session on November 10, 1998. The public was invited to comment on these draft reports one week later on November 17, 1998 -- and 28 individuals representing the various perspectives did testify at this latter meeting. The task force kept the record open until 5 p.m. on November 24, 1998. Those comments and supplemental reports are a part of the permanent

record which has been transported to your office. The task force believes that it is important for those records to be secured for future use as background materials in the case of legislation or for any future research studies.

Several papers and individual comments were received too late to be given the attention they may deserve. The task force recommends that those documents be consulted as this process goes forward.

Governor, on behalf of the task force, and myself, I want to express our gratitude for your open, hands-off charge and continuing relationship with our proceedings and our work. You indicated from the beginning that you wanted an open and factual study and recommendations that were in the long term best interests of the people of West Virginia. I believe that with your support the task force has produced such a report -- the best that could have been produced with the data and time available.

We are pleased to be able to serve you and the people of West Virginia.

Sincerely yours,



J. Wade Gilley
Chairman

Enclosure: Report

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CHAPTER ONE

Governor's Task Force on Mountaintop Mining and Related Practices

EXECUTIVE SUMMARY

In June, 1998, Governor Cecil H. Underwood created the Task Force on Mountaintop Mining and Related Practices. The task force, chaired by Marshall University President J. Wade Gilley, was encouraged to engage in wide-ranging discussions and fact-finding to provide a basis for assessment of the many complex policy issues raised by the public and others in connection with large-scale mountaintop mining operations. More specifically, the Governor charged the task force with evaluating the impacts of this type of mining on the economy, on the environment, and on the people of West Virginia.

To carry out this charge, Chairman Gilley divided the task force into three committees: Committee on the Impact on the Economy, Committee on the Impact on the Environment, and Committee on the Impact on the People. The task force as a whole, based on input obtained from an initial public hearing, identified issues for the three committees to investigate. In addition, the Chairman sent written requests to all identifiable interest groups and agencies requesting the submission of "white papers," or position papers, to identify specific concerns regarding mountaintop mining. A task force website was established to provide timely information to the public on task force activities.

The three committees, along with the task force as a whole, held frequent meetings to obtain additional information and further discuss relevant issues. The meetings took various forms – symposia, public hearings, and other open meetings – and involved the presentation of information from a variety of groups and individuals, including state/federal agencies, environmental and public interest groups, industry associations, and organized labor. Affected individuals, which included both those employed by the mining industry and related industries and those affected by nearby mining operations, also provided input at public hearings.

Based on information obtained from the meetings and written submissions, the task force adopted a final report, which is a compilation of the three committee reports. The following is a summary of the recommendations of the task force. More detailed recommendations, and associated factual findings by the three committees, are presented in the attached report.

Summary of Task Force Recommendations

Further study and data compilation

- Immediate steps should be undertaken by appropriate state and federal regulatory agencies to compile mine permitting and inspection information in such a manner as to make this information more accessible and understandable by the public. The information should be compiled in database form, and should identify and define stream types, flow volumes, and lengths affected by valley fills.
- More research on mountaintop removal mining is needed and that research should be coordinated, well funded and expedited. To accomplish this goal, the Governor should attempt to bring state and federal regulatory authorities together for a coordinated review and assessment of information and study needs, including the appropriate process to follow in the development of further studies. In addition, an intergovernmental, interagency research group should be commissioned to establish and pursue the appropriate research agenda.
- The legislature should make a commitment to an assessment of the location and size of existing coal currently or potentially available for mountaintop mining, including a realistic projection of mountaintop acreage that is subject to removal and placement in valley fills. In furtherance of this goal, the legislature should appropriate adequate funds to accelerate the coal bed mapping project of the West Virginia Geological Survey.
- The state should make a further commitment to studying the long-term and cumulative environmental impacts of mountaintop mining, including water quality, fish/wildlife, and biological impacts, with assistance from appropriate experts.
- The Division of Environmental Protection should work with the U.S. EPA to evaluate the long-term environmental impacts of specific sites permitted during the last ten years, as further identified in the environmental committee report.

Community impact

- A new office within the Division of Environmental Protection should be established to regulate the impact on the people of mountaintop removal mining.
- The permitting process for mountaintop mining should be amended to include a determination of the impact on the community and the process should identify how that impact can be mitigated and the community compensated for the negative impacts of mountaintop removal mining.
- Acquisition of property by mining interests after permits have been applied for should be subject to oversight by the newly created office within DEP and standards should

be imposed to assure fair treatment of property owners negatively impacted by mountaintop mining operations.

- A process should be established to provide compensation for legitimate claims in a non-litigious manner.
- The laws and regulations regarding blasting in West Virginia should be reviewed; additional protections should be afforded impacted landowners and in some cases modification of and addition to existing rules may be warranted.

Stream mitigation

- The state legislature should rescind Senate Bill 145, which contains a number of provisions adverse to the effective regulation of coal mining activities.
- The Governor, by executive order, should direct the Division of Environmental Protection to implement the guidelines, standards, and procedures for mitigation that were in effect prior to the effective date of S.B. 145. The executive order should specify that mitigation projects and funds be expended on environmental or water quality related projects at, near, or in close proximity of the mine site.
- The Environmental Protection Agency and the Corps of Engineers should be urged to develop a comprehensive nationwide stream mitigation policy, to be applied consistently in affected states.

Post-mining land use

- The permitting process should be amended to include a determination of the needs for developable land and infrastructure in the coal field areas where mountaintop removal mining is conducted and the permit applicants and affiliated mining interests should be required to help address those needs.
- Fish and wildlife habitat should be discontinued as a post-mining land use. Such action should be taken at the first opportunity without causing disruptions in on-going mining operations.
- Commercial forestry should be the preferred post-mining land use for all surface mined lands.
- With respect to the public recreation facilities post-mining land use, objective and quantitative criteria should be established to evaluate the demand and potential economic and recreation value of such sites. Such sites should be evaluated by a professional evaluation team, which should ensure that safe public access is available, appropriate legal agreements exist to assure public use, and a management plan exists for continued funding and operation.

- Agriculture should be considered as a post-mining land use only in exceptional situations.
- Objective site assessment criteria should be consistently applied and enforced with respect to proposed industrial and commercial post-mining land uses.

Proactive regulatory agency involvement

- The Governor should work with state agencies to assure continued rigorous and consistent enforcement of existing environmental regulatory requirements applicable to mountaintop mining operations, including those associated with water quality and approximate original contour requirements.
- The task force process should be used as a first, and not a final, step in the public debate concerning large-scale mountaintop mining, and relevant state and federal government agencies involved in development of policy should take all appropriate measures to assure adequate representation in the process by all affected groups and individuals.
- The federal agencies involved – the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Office of Surface Mining, and the Environmental Protection Agency – should be encouraged by the Governor and the West Virginia Congressional delegation to cooperate in resolving outstanding mountaintop removal issues.
- The alternative dispute resolution procedure developed under the Federal Negotiated Rulemaking Act of 1990 should be used to provide a framework to implement recommendations of the task force, resolve pending litigation, and achieve closure of all mountaintop removal issues.

Further mountaintop mining policy development

- The balance between preservation of the natural landscape and surface mining is an inherently political decision vested in the legislative branch. Consequently, the legislature should consider whether public values compel restrictions on the degree of alteration in the natural landscape and the environment, especially in regard to large-scale mountaintop mining operations.

CHAPTER TWO

GOVERNOR'S TASK FORCE ON MOUNTAINTOP REMOVAL AND RELATED MINING PRACTICES

Committee on the Impact on the People

Committee Report

I. Introduction

Although mining always has impacted the lives of the people of West Virginia, the method called "mountaintop removal" has created an impact of significant proportions and stirred the passions of many on all sides of the issue. Mountaintop removal and related mining practices have created no small amount of controversy. The practice has long been challenged by the environmental community in West Virginia and lately groups of citizens directly affected by the mining practices associated with mountaintop removal have joined a chorus of dissent. Most recently, the passage of a bill by the West Virginia Legislature relating to the payment of mitigation for stream loss seems to have provided the spark which ignited the current controversy and led to the appointment of this task force.

Mountaintop removal is a process of mining coal that is not just larger in scope or size than traditional mining methods. Mountaintop removal mining is different in kind - it is a different type of mining. As defined below, the mountaintop removal mining method uses massive amounts of explosives and mammoth excavating equipment to move large quantities of rock and to remove whole seams of coal. The excess material removed from atop the coal is then deposited in the valleys of the mountains being mined to create large earthen and rock structures known as "valley fills".

The charge of this committee is to consider certain specific, assigned issues and generally to review and to report on the impact on the people of mountaintop removal mining as well as to make recommendations concerning future activities. Other committees are dealing with the impact on the environment and the impact on the economy and, although the topics may overlap, our committee has tried to focus its efforts where assigned - the impact on the people. In other words, this committee was not charged with making recommendations regarding broad environmental or economic issues. (For instance, it was not the charge of this committee to consider the stream mitigation bill passed by the Legislature.) Issues such as these should be consolidated in the final report of the Task Force.

The committee has attempted to take a balanced approach to the issues involved. Relating to the impact on the people, the positive economic impacts of mountaintop removal

mining must be balanced with the sometimes negative individual and community impacts of the process. Additionally, the interests of the state generally and the interests of the coal fields specifically have been considered in the balance by the committee as well.

The Activity Of "Mountaintop Removal Mining"

Mountaintop removal mining is a broad term which may encompass mining activities that do not cause the negative impacts which are in the purview of this committee or it may exclude mining activities which should be covered because of their impacts. There may be small operations which do not cause the negative impacts complained about, and there may be large operations which technically are not classified as mountaintop removal mining which do cause such impacts. The activity which the committee believes should be the primary focus of this report is generally referred to as "large-scale" mountaintop removal mining. It is characterized by the following, taken either individually or in conjunction:

- ◆ The use of massive amounts of explosives;
- ◆ The use of mammoth excavating equipment;
- ◆ The permitting, or anticipated permitting, of large amounts of contiguous acreage;
- ◆ The anticipated mining of large amounts of coal;
- ◆ The anticipated extraction of multiple seams of coal; and
- ◆ The significant disturbance of watersheds.

The activities to which the recommendations of this report should apply ultimately will be the subject of legislation. Nevertheless, any definition of the activity must, in the final analysis, consider the potential for its impact on the people.

Impacts of Mountaintop Removal Mining

The impacts of mountaintop removal mining are real and their effects mixed. Our public hearings and site visits revealed both positive and negative impacts. Some of the positive impacts of mountaintop removal mining are:

- ◆ Profits for mining interests;
- ◆ Jobs;
- ◆ High wages and good benefits;
- ◆ Financial support for suppliers and the jobs they provide;
- ◆ Significant tax and other revenues and the resultant benefit to state and local governments as well as the citizens of West Virginia;
- ◆ The general economic benefit provided to the entire state;
- ◆ Contributions to local civic, education and service groups; and
- ◆ Creation of flat land for development .

But there are negative impacts as well. Some negatives the committee identified are:

- ◆ Effects of blasting;
 - Noise
 - Vibration
 - Air Shock
 - Dust
 - Property damage
- ◆ Noise and dust from actual mining activities other than blasting;
- ◆ Purchasing of houses, businesses and other structures and the impact their loss has on communities;
- ◆ The removal of mountain tops; and
- ◆ The filling of valleys.

These lists are not intended to be comprehensive, but do reflect the testimony and evidence received by the committee.

Groups Impacted by Mountaintop Removal Mining

The different impacts, positive and negative, were revealed most clearly in the varying views given during public hearings held by the task force and our committee. The issue at hand is complex in nature and reveals not just two sides, but many sides. It is fraught with significant and legitimate conflicting interests. It was apparent to the committee that the views held by the various groups and persons who made presentations are sincere, even though the perceptions of similar facts and circumstances by many people are diametrically opposed.

Most of the interests involved can be identified within one of the following broad categories:

◆ **Industry**

Coal Companies Making a reasonable return on investment by mining coal at costs which allow them to compete with other sources of coal and energy, especially in the internationally competitive steam coal market.

Land Companies Obtaining and maximizing royalties from the efficient mining of the coal properties and receiving post-mined land in a reasonable condition for future use.

Associations Representing the coal industry and other associated businesses.

Suppliers Maintaining a healthy coal industry which provides their source of sales and service revenues.

◆ **Employees**

Coal Miners Wages and benefits which provide a high standard of living and the ability to provide their families with good homes, educations and the benefits which high wages generate.

Employees of Suppliers Wages and benefits and the continuation of their employers' businesses.

◆ **Residents of West Virginia**

Direct Impact The residents directly impacted by the activities associated with mountaintop removal, i.e., blasting, noise, dust, and loss of community and those residents whose jobs and livelihood are tied directly to mining.

Community Impact The residents indirectly impacted by the loss of the communities in which they live as a result of mountaintop removal mining, i.e., loss of businesses, schools and neighbors caused by property acquisitions and loss of population and those residents who receive the benefits of mining through jobs indirectly linked to mining and those residents who benefit from the contribution mining companies make to their communities through tax revenues and contributions to civic and other groups.

General Impact Residents of West Virginia who believe that they are impacted negatively by the loss of mountainous terrain and the filling of valleys and residents who believe that they are impacted positively by the economic benefit mining coal brings to our state and the regions where it is mined.

◆ **Environmental Community**

Organized Groups Formal groups of environmentally concerned individuals, i.e., The West Virginia Highlands Conservancy and the West Virginia Citizens Action Group

Environmentally Concerned Individuals Those persons not associated with any formal environmental group who simply believe that the removal of mountains and filling of valleys is morally wrong.

◆ **Group Beneficiaries**

Government	State Government, County Commissions, School Boards and others which receive significant tax and other revenues from mining activities.
Civic Groups	Groups which receive contributions and leadership from industry members in support of their activities, i.e. sports leagues, community service agencies, individual schools.

Again, this list is not intended to be exhaustive. It is, however, reflective of the individuals and groups appearing before the committee during the process - individuals and groups holding strong and often opposite views of mountaintop removal mining.

II. Guiding Principles

During the course of its work, the committee developed certain principles that guided it in the formation of its recommendations. These three guiding principles became the basis for each of the recommendations contained in this report.

Principle One: The Need for a New Type of Regulation

The history of regulation in the coal industry reveals an ever-expanding regulatory structure made necessary by the need to respond to changes in coal mining technology and activities. The dangers inherent in underground mining made safety one of the initial concerns. As the environmental impact of mining became apparent, especially with the growth of surface mining, the regulation of mining increasingly included environmental as well as safety issues.

As noted above, mountaintop removal mining isn't just different in degree, it is a new type of mining and the impacts of modern mountaintop removal mining methods on individuals, our communities and the state as a whole require a new level and type of regulation. The use of new technologies that include extensive blasting, large earth moving equipment and the ability literally to remove the tops of mountains and fill valleys with the spoil requires the consideration of a new level of regulation. If mountaintop removal mining is to continue in its current form, then the state owes a duty to its citizens to begin regulating the impact of the activity on the people of West Virginia who are or may be adversely impacted.

The committee found that the groups which are adversely impacted can be divided into three general classes, as outlined above. The three are:

- ◆ Direct Impact The impact on those individuals living near enough to the mines to be directly affected by actual mining activities.

- ◆ Community Impact The impact on those living in the communities of the state where mountaintop removal mining occurs.
- ◆ General Impact The impact on the state as a whole and especially on the region of the state where mountaintop removal mining is conducted.

Each of these groups deserves consideration in any scheme which attempts to regulate the impact of mountaintop removal mining on the people. The recommendations included in this report will suggest a scheme of regulation which considers the various legitimate interests of these groups.

Principle Two: Securing the Future of the Coal Fields

The severance of the ownership from the occupancy of the land in West Virginia is a part of our history which has impacted the economy of our state and the lives of our people for many years. The ability of corporate interests to amass large tracts of land and mineral resources has no doubt facilitated the economic mining of coal. This has created high-paying jobs for those working in the industry and significant financial gain for those indirectly impacted by the development of our natural resources, not the least of which is the benefit to the citizenry in general from the collection of tax revenues. On the other hand, the amalgamation of large tracts of land and mineral resources by corporate interests, especially those not resident in the areas where the coal was mined, has meant that profits often have not been reinvested locally and communities where mining has been completed often are impoverished or simply cease to exist. The committee makes no determination as to whether any party to this circumstance is particularly evil or noble; they are just beneficiaries - for better or for worse - of the history of the ownership of land which exists in West Virginia and which cannot be changed now.

Mountaintop removal mining, combined with the severance of ownership from occupancy of the land, raises new issues. There are at least three clear impacts which the committee believes are peculiar to mountaintop mining and which are likewise critical to the future of our state. The first two were discussed above. First, mountains are being removed and valleys filled and a significant number of people disapprove of this activity. Second, people, especially those living closest to the mine sites, are impacted negatively by the process. As indicated before, the impact on the people of our state resulting from mountaintop removal mining should be the subject of a new and comprehensive regulatory effort.

But there is a third, new issue raised by mountaintop removal mining which must be addressed as well. Where implemented, mountaintop removal mining tends to extract most, if not all of the recoverable coal reserves. For a state long dependent on the employment and revenue coal mining provides, this reality should be sobering and there is no place in which the comprehension of this reality is more crucial than the coal fields of West Virginia. Long dependent primarily on mining, this area must plan for a future without coal. The state and its subdivisions

have a legitimate interest in securing that future through the leverage they possess over this and other activities.

To whom much is given, much will be required. With every level of privilege comes an equally high level of responsibility. If the coal industry, and those benefitting from the extraction of mineral resources, are allowed the short-term privilege of exploiting our state's wealth through mining practices which impact a large group of people - some in a very negative way - and through practices which will extract significant portions of the remaining reserves, then with that privilege must come the responsibility of helping address the long-term needs of the people impacted by the activity. That responsibility clearly can be exercised in a very general way through the payment of taxes and other fees like mitigation, but the nature of the activity and the impact on the people demand more direct forms of addressing the needs. The recommendations of the committee will attempt to begin the process of addressing those needs.

Principle Three: Regulation, Mitigation and Compensation; not Abolition or Moratorium

The committee notes that only one group and a few individuals who appeared before the committee advocated the abolition of mountaintop removal mining. Several groups did seek support for a moratorium pending more research into the environmental and societal impacts of mountaintop removal mining.

The committee also notes that of those individuals whose lives are or were most directly affected negatively by mining operations, almost none sought abolition. They understand the economic benefit mining provides to the state and particularly to those who work in the industry. They do not seek a solution that would cost men and women their jobs, but they do seek relief from the negative impacts mountaintop removal mining has had and continues to have on their lives.

This committee is not prepared to recommend the abolition of mountaintop removal mining. On balance, the committee believes that the positive impacts of mountaintop removal mining can outweigh the negative impacts. Nevertheless, this committee does find that, in the area of the impact on the people, the legitimate interests of the state and especially the interests of the people most negatively impacted have not adequately and fairly been addressed and that for the activity of mountaintop removal mining to continue, changes must be made. Those changes, principally in the areas of regulation, mitigation and compensation, are the subject of our recommendations.

III. Issues Assigned to the Committee

There were issues, in the form of questions, assigned to the committee. Some of the questions were objective in nature and required the finding of facts. We would like to thank the Division of Environmental Protection for their help in ascertaining many of these facts. Other

issues were very subjective in nature and still others were suggestive of the recommendations which follow.

The issues and the answers the committee gives, where appropriate, are attached hereto as Attachment A.

IV. Committee Meetings and Procedures

The committee meetings took on several forms. The committee conducted a public hearing in the coal fields and also conducted a hearing by invitation where interest groups representing all sides of the issue were invited to make presentations and submit to questions from the committee. The committee also had working sessions to consider the issues, recommendations and this report.

A list of committee meetings and their purposes is attached hereto as Attachment B.

V. Documents and Other Evidence

The committee received several documents, tapes, articles, letters and other evidence during its deliberations on the issues. A list of those items is attached hereto as Attachment C and the originals will be delivered to the full task force when this report is finalized.

VI. Recommendations

Recommendation One:

More research on mountaintop removal mining is needed and that research should be coordinated, well funded and expedited. To accomplish this goal, an intergovernmental, interagency research group should be commissioned to establish and pursue an appropriate research agenda.

The question of whether sufficient research exists on the issue of mountaintop removal mining was asked of several groups and persons appearing before the committee. Without exception, the answer was a resounding "no". New and continuing research must be performed. The research and the process should be guided by the following:

- ◆ **The research and the results should be open to the public.** For the public to have any confidence in the results and findings, research must be open to public scrutiny.

- ◆ **The research should be expedited.** Mountaintop removal mining is not totally new to West Virginia and immediate research efforts are possible. The work should begin now.
- ◆ **The research should be coordinated.** Government has a role to fill in seeing that the agencies and private organizations doing research coordinate their efforts. An intergovernmental, interagency research group, like the Coal and Energy Research Institute at West Virginia University, should be commissioned to establish and pursue an appropriate research agenda. The many research resources of our colleges and universities should be marshaled in this effort.
- ◆ **The research must include the impact on the people and our communities.** The major focus of research has been on the environment. This is important, but the impact on our communities and those persons most directly affected must be researched as well.
- ◆ **Government and industry must be willing to pay for the needed research.** It can be assumed that research will cost money. Government and industry must be willing to pay the cost.

There are a number of areas which are deserving of immediate consideration. Some of those are:

- ◆ The need to change blasting laws and regulations in light of modern blasting techniques;
- ◆ A scientific determination of the impact of valley fills on watershed areas and streams; and
- ◆ A determination of how much total land is susceptible to mountaintop removal mining and where it is located.

The last suggestion, a determination of how much total land is susceptible to mountaintop removal mining and where it is located, is particularly crucial. The committee believes that there must be some constitutional limit to the amount of land which can be impacted by mountaintop removal mining. Although the committee does not find that this limit has been reached, the committee does believe that a public debate on this issue should be conducted. Perhaps the availability of reserves will establish that limit, but this issue is too important to leave to industry estimates. Good research should be conducted immediately to answer this question and a reasonable limit should be established through public debate. Obviously, the constitutional issue of takings must be considered in any debate and decision.

One suggestion received by the committee was that a moratorium be imposed on new permits until research is completed. Although the committee considered this suggestion, it believes that the interests of the state will best be served if mining is allowed to continue and immediate, scholarly research commenced in a number of areas. If such research is not forthcoming immediately, then a renewed call for a moratorium might take on new strength.

Recommendation Two:

A new office within the Division of Environmental Protection should be established to regulate the impact on the people of mountaintop removal mining.

As noted above, mountaintop removal mining has created a need to add a new level of regulation to mining activities in West Virginia. The impact of mountaintop removal mining on the people of the state is real and in some cases very direct and adverse. The committee recommends the establishment of a new office within the Division of Environmental Protection to regulate the impact on the people of mountaintop removal mining. For the sake of discussion, this new office is referred to as the Office of Community Impact. (Obviously, the word "community" is used in its broader sense as defining all those who are impacted by the activities of mountaintop removal mining.)

This new office should be funded by an assessment on the activity of mountaintop removal mining itself. A per-pound fee on the amount of explosive used or some per-ton cost on coal mined might be used.

The Office of Community Impact would have the following duties and functions, most of which are related to the new activities and processes suggested in the recommendations which follow. It would be their responsibility at least to:

- ◆ Manage the claims process recommended below;
- ◆ Catalog and review reports from the expanded use of monitoring equipment recommended below;
- ◆ Review research, especially research relating to the impact of mountaintop removal mining on people and their communities, and make recommendations to the appropriate governmental authorities;
- ◆ Review and approve community impact statements as recommended below;
- ◆ Determine the need for meetings to be held among the various interested parties in the communities impacted and, when determined appropriate, facilitate such meetings.
- ◆ Oversee the land acquisition process and assist persons and families in the land acquisition process where requested, as recommended below; and
- ◆ Manage the process for determination of future land use as recommended below.

Location of the Office of Community Impact Within the West Virginia Division of Environmental Protection

At the public hearing during which the draft of this and the other reports were reviewed, the strongest objection to this report was to the location of the new Office of Community Impact within the West Virginia Division of Environment Protection. The committee discussed this objection at

length during a meeting immediately following the public hearing. The committee determined that the interests of the state and the interests of the people to be assisted most directly by the new Office would best be served by the committee's original recommendation that the new Office of Community Impact be located within the Division of Environmental Protection. The reasons for the committee decision are the following:

- ◆ The text of the report suggests that the new Office of Community Impact have significant new duties. These new duties, as detailed below, require the new Office to have significant interaction and communication with the Division of Environmental Protection in the following areas:
 - In managing the new claims process, the new Office may be required to access Division of Environmental Protection records and to interact with Division of Environmental Protection employees.
 - The new Office must catalog and review reports from the expanded use of monitoring equipment and this function can best be performed if the new Office is a part of the Division of Environmental Protection.
 - The two new requirements that the Office of Community Impact review and approve community impact statements and that it manage the process for determination of future land use are critical functions. Since these functions both will become part of the permitting process, it is important that the new Office have a direct relationship with the Division of Environmental Protection and its permitting process.
 - The role of the new Office to oversee the land acquisition process and assist persons and families in the land acquisition process where requested again places the Office in direct relationship with the Division of Environmental Protection. Much of the information needed to administer this process, as described below, will be in the possession of the Division of Environmental Protection.
- ◆ The new Office of Community Impact can use the existing resources of the Division of Environmental Protection and avoid many of the substantial costs incurred in the creation of an independent agency within state government.

A review of the testimony indicated to the committee that one of the reasons some were opposed to the location of the new Office within the Division of Environmental Protection was the way in which claims have been handled in the past. This may be a legitimate concern, but the Division of Environmental Protection is not totally to blame. As noted below, contrary to popular belief, the Division of Environmental Protection currently is not a claims agency - it is a regulatory agency. It does not settle claims - it issues violations. For the first time, the Division of Environmental Protection, in the auspices of the new Office of Community Impact, will have as one of its assigned duties the management of a claims process. The committee believes the Division and the new Office should be given the opportunity to demonstrate whether or not they can fairly administer the claims process.

For the reasons stated above, the committee believes that the Division of Environmental Protection should be given the opportunity to administer the new Office of Community Impact with its new and expanded duties. If the Legislature determines at any time that the Division of Environmental Protection or the new Office is not doing its duty, then a change can be made.

Recommendation Three: *The permitting process should be amended to include a determination of the impact on the community and the process should identify how that impact can be mitigated and the community compensated for the negative impacts of mountaintop removal mining.*

The committee finds that there are real and sometimes extremely negative impacts on individuals and communities near mountaintop removal mine sites. There are at least two specific impacts that should be addressed.

First, the effects of blasting sometimes are very detrimental to the lives of those living near mining operations. The noise, vibration, dust and air shock not only damage property but sometimes significantly impair the quality of life of those impacted. Second, the elimination of a community through the process of property acquisitions serves to diminish the value of property and the quality of life for those who remain during and after the mining operations.

The permitting process should be amended to include a determination of the potential impact on individuals and the immediate community as a whole. This community impact process should be managed by the new Office of Community Impact and the process should result in a community impact statement. The process and the statement should be designed so as not to lend themselves to extensive litigation. At least the following should be determined as part of the permitting process and made a part of the community impact statement:

- ◆ The extent of property acquisitions anticipated.;
- ◆ The intentions of the mining interests relative to the acquired property;
- ◆ Direct impact on the community from property acquisitions, i.e. businesses, churches, schools, etc.;
- ◆ The consequential impact on the community of the loss of community assets;
- ◆ The future of the community once mining operations are completed; and
- ◆ The assets that could be developed in and maintained by the community to assure its viability, if any, when mining operations are completed.

Additionally, history teaches us that some communities exist only because of mining and will cease to exist when mining stops, regardless of the type of mining activities. Long before mountaintop removal mining ever was conducted, the hills of West Virginia sheltered many communities which simply vanished when mining stopped. It would be less than fair to the community and its residents if the community impact process did not bring about an honest

discussion of the future of a community when coal mining ceases. Many of the recommendations in this report require such a frank discussion and determination.

Permits should be designed to minimize the impact on individuals and the community. The committee emphasizes the word "minimize". If mountaintop removal mining is to continue, there will be no way to eliminate all of its negative impacts on people and communities in close proximity to mountaintop removal mining operations. For that reason, the mining interests owe some form of mitigation, if not compensation, for those negative impacts.

If the community is to exist during and after mountaintop removal mining operations, then, prior to granting a permit, a determination should be made of what assets could be developed in and maintained by the community to assure its viability when mountaintop removal mining operations are completed. The following is a list of potential considerations:

- ◆ Water and waste water services;
- ◆ Developable land;
- ◆ Commercial enterprises like stores, service stations and other facilities that may have been lost during the mining process;
- ◆ Recreation facilities and opportunities; and
- ◆ Education facilities and opportunities.

After all these determinations are made and the real and total impact on individuals and the community are established, then some form of mitigation should be required in exchange for the negative impact on communities and individuals. The mitigation should be commensurate with the impact and it should be aligned with the determinations made of the assets the community needs. To endure the negative impacts of the mountaintop removal mining process, the community and the individuals should know that a better future is assured not only for those positively impacted by mining, but also for those negatively impacted.

In other words, some form of community mitigation or compensation should be made by the mining interests in exchange for the inconvenience and discomfort the community and its members will suffer during the mining operations. The community impact statement process should determine the appropriate level of mitigation or compensation and all these issues should be resolved prior to the granting of a permit.

For such a form of mitigation to work, every interested party must be a part of the community impact process. That should include at least the following:

- ◆ The communities and the individuals impacted;
- ◆ The mining company;
- ◆ The land company, if any, which will own the land after the operations are completed;
- ◆ The local economic development authorities;
- ◆ Local governments and agencies; and

◆ The Office of Community Impact.

It may be impossible to satisfy every conflicting interest during the community impact process and no doubt the mining activities will result in some unhappiness. Nevertheless, government has a legitimate role in balancing the interests of developing our natural resources while at the same time protecting those impacted and compensating communities for their general losses. Such should be the nature of a community impact process.

Recommendation Four: ***Acquisition of property by mining interests after permits have been applied for should be subject to oversight by the Office of Community Impact and standards should be imposed to assure fair treatment of property owners negatively impacted by mountaintop removal mining operations.***

Mining interests are free to acquire land and buildings both prior to and after a permit is sought but the position of the landowner changes significantly when a permit is announced. Once it becomes public knowledge that a permit is being sought, the marketability of property changes and the relative bargaining power of the parties changes with it. The potential for negative impact on those living in communities near mountaintop removal mining operations limits the options for the landowner and unfairly shifts bargaining power in favor of the mining interests.

There are two affected groups of landowners created by existing laws. Currently mining companies are required to obtain waivers from those living within 300 feet of mining operations. The group of landowners created by this rule may have significant bargaining power but may still need assistance in the bargaining process.

The second group impacted are those landowners who live more than 300 feet from blasting operations but who still will be negatively impacted by the mining operations. They are left with few, if any, desirable options. They either must sell to the mining company at the company's price, sell for less than fair market value to another interested party or stay and endure the mining operations. Testimony indicated that those persons who simply endured often were never considered for purchase and those persons who created the greatest discomfort for the mining companies often received offers to purchase. Such dilemmas should not be left unattended.

The committee recommends that a process be established and managed by the Office of Community Impact which identifies those landowners who are so adversely impacted by the mountaintop removal mining process that they should be offered the opportunity to sell their property and leave. This process should be characterized by at least the following:

- ◆ No person should ever be required to sell.

- ◆ A standard should be established that identifies those persons who, because of the significant negative impact of mountaintop removal mining, should be given the opportunity to sell their property and leave the community. Such a standard should be as objective as possible, considering at least the following:
 - The scope of the negative impact;
 - The duration, both retrospective and prospective, of the negative impact;
 - The results of objective measures of impact, i.e. seismography, air blast measures, particulate measurement, sound measurement;
 - The inspection of property damages, if any;
 - The establishment of adverse health conditions; and
 - The effectiveness of monetary damages.
- ◆ The Office of Community Impact should be empowered to determine when the standard has been exceeded and trigger the offer/acquisition process.

The committee recommends that acquisition of property by mining interests after permits have been applied for should be subject to oversight by the Office of Community Impact. This office should be notified of any such potential purchases by the mining interests and should offer assistance to any landowner who desires help with a property transaction. Additionally, any landowner who feels so negatively impacted as to trigger the standard established for the offer/acquisitions process could apply for relief to the Office of Community Impact.

Standards also should be imposed to assure fair treatment of property owners. Once permits are applied for, the traditional relationship of willing buyer and willing seller used to establish fair market value ceases to exist. When this occurs, a different measure of value should be established. The mining company should be required to pay an amount necessary to allow the landowner to relocate in a comparable dwelling without unnecessary expense.

The committee heard testimony that there are companies attempting to treat landowners fairly and the committee has no doubt that this testimony is accurate. Nevertheless, the committee also saw evidence that some landowners are forced to endure living conditions during the mountaintop removal mining process which no member of the committee would find acceptable. The committee would be less than honest if it failed to recognize that the situation may sometimes exist when a person should at least be given the opportunity to sell and to leave the community. A process to accommodate the same should be established.

While on its site visits, the committee noted that many structures had been purchased by the coal companies and simply left abandoned. Leaving structures in such condition tends to devalue all the remaining properties and soon they become eyesores. The committee believes that the companies purchasing the properties either keep the structures maintained in a condition which would not negatively impact the community or remove the structures. Any decision should be based upon the input gathered during the community impact statement process.

Recommendation Five:

A process should be established to provide compensation for legitimate claims in a non-litigious manner.

Contrary to popular belief, the Division of Environmental Protection is not a claims agency - it is a regulatory agency. It does not settle claims - it issues violations. In fact, there is no agency, other than the courts, which offers compensation to landowners for legitimate damages. The reality of the situation is that most landowners do not have the resources to litigate a legitimate claim against a mining company if the company chooses to fight a claim.

The committee recommends that a claims process be established to provide compensation for legitimate claims in a non-litigious manner. The process should be characterized by at least the following:

- ◆ The Office of Community Impact will manage the claims process.
- ◆ A landowner who believes damages have been sustained as a result of mountaintop removal mining could apply to the Office of Community Impact for monetary compensation.
- ◆ Application to the Office of Community Impact would be voluntary at the discretion of the landowner, but once the landowner enters into the process, the landowner agrees to accept the outcome and access to the courts for redress would be limited, if not denied.
- ◆ The coal company applying for a permit would agree to submit to the damage process.
- ◆ The Office of Community Impact could use its funds for any or all of the following:
 - Hiring of Experts;
 - Inspection of Claims;
 - Payment of arbiters; and
 - Payment of special representatives.
- ◆ The process would apply only to property damages.
- ◆ If a company was determined to be responsible for damages, it would be required to pay the claim or suffer suspension or block of permits.

Because the Office of Community Impact will be funded by an assessment related to the mountaintop removal mining process (see above), the mining companies would be paying for the claims process. However, damage awards would be paid by the actual offender thereby affixing financial responsibility to the offending party, not to a responsible operator.

Recommendation Six:

The laws and regulations regarding blasting in West Virginia should be reviewed; additional protections should be afforded impacted landowners and in some cases modification of and addition to existing rules may be warranted.

The committee finds that blasting is creating the greatest negative impact on the people who are directly impacted by the activity of mountaintop removal mining. The committee makes the following specific recommendations:

- ◆ West Virginia should explore an action similar to that of our sister Commonwealth of Kentucky which established a separate office to deal with blasting. Such an office, within the Division of Environmental Protection, could be structured as follows:
 - Use existing employees but focus their activities on blasting instead of the whole range of activities they now must consider;
 - Provide for the development of expertise in the area of blasting within the division;
 - Be responsible for increased monitoring and research; and
 - Help with the claims process where needed.
- ◆ In light of modern blasting methods and the size of the blasts, one of the first targets of scholarly research should be the rules for blasting. Particular areas of research should include:
 - The size of shots allowed;
 - The methodology used to prepare and detonate shots;
 - Consideration of whether the zone of protection requiring a waiver for blasting should be extended beyond 300 feet; and
 - Consideration of whether there should be a larger pre-blast survey area.
- ◆ West Virginia should purchase and install more monitoring equipment. It could serve two purposes:
 - Help determine validity of damage claims; and
 - Contribute to the research base on blasting.
- ◆ Every effort should be made to limit the impact of the actual blast on individuals and communities. The following measures should be implemented, along with others that might serve the purpose:
 - Restrict blasting to certain times of the day to avoid impact on the most vulnerable like children and the elderly; and
 - Provide better notice. The committee believes that the concept of automatic telephonic notification prior to the actual blast should be explored.
- ◆ The laws and regulations relating to blasting should be reviewed in light of the fact that current blasting rules assume that the structures which might be affected are "built to code". In fact, many of the structures affected by blasting may not be "built to code" and the laws and regulations relating to blasting should be modified to reflect this fact.
- ◆ The laws regarding damages and presumptions should be updated to include the following:
 - Absolute liability for damage from rocks and debris;
 - Damage to structures governed by the claims process as described above. A number of the committee recommendations apply to structural damages, including:
 - The recommendation for immediate, comprehensive and scholarly studies of blasting;
 - The recommendation that a new claims process be established; and
 - The recommendation that more monitoring be implemented.

A presumption should be established regarding water wells. An individual can endure some discomfort from blasting, but the loss of water is intolerable.

- Water wells should be tested by the mining interests prior to the commencement of operations and such testing should be performed on all wells within a distance established by the Division of Environmental Protection.
- Water wells should be tested both for quality and quantity of water.
- Testing would be voluntary with the landowner but, once tested, if the quantity or quality of the water diminishes below relative standards established by the Division of Environmental Protection, then a presumption would exist that blasting caused the diminution.
- If the landowner chooses not to allow testing, then no presumption would exist.

The impact of blasting must be studied further and new rules to control its impact on individuals and communities should be established. The committee has attempted to suggest some of the needed changes, but believes that this issue deserves additional attention as more information is obtained by others charged with blasting regulation.

Recommendation Seven: *The permitting process should be amended to include a determination of the needs for developable land and infrastructure in the coal field areas where mountaintop removal mining is conducted and the permit applicants and affiliated mining interests should be required to help address those needs.*

This recommendation is based on four assumptions.

- ◆ First, the regions of the state where mountaintop removal mining is conducted are extremely dependent on coal mining and, when the mining ends, they must have begun the process of diversifying their economies to provide a base for economic survival. To do so, they need developable land and infrastructure.
- ◆ Second, the severance of the ownership from the occupancy of the land in West Virginia has impacted the economy of our state and the lives of our people for many years and will continue to do so long after mining ceases to provide the economic impact it now does.

- ◆ Third, there is a negative impact on the state as a whole and the region where mountaintop removal mining operations are conducted from the removal of mountains and the filling of valleys. The people of the state and those regions are entitled to some mitigation of those impacts.
- ◆ Fourth, as the coal industry's contribution to the economy of the coal fields declines, the state and its subdivisions have a legitimate interest in securing the economic future of the coal fields through the leverage they possess over mountaintop removal mining and associated activities.

The committee believes that the combined consideration of these four assumptions points to the need to amend the permitting process to include a determination of the needs for developable land and infrastructure in the coal field areas where mountaintop removal mining is conducted and to require the permit applicants and affiliated mining interests to help address those needs.

The committee believes that an agency in the nature of a land trust should be established to receive developable land contributed as mitigation for the negative impacts of removing mountains and filling valleys. This land should be located as near as possible to the areas of developing commerce in the coal fields, principally along existing or planned multi-lane highways. Where possible, infrastructure development should be included as part of the mitigation process. The amount of land to be contributed and the required infrastructure development should be measured by a number of factors, which should include, but not be limited to, the following:

- ◆ The amount of land mined and the amount of valley filled;
- ◆ The determined future of the communities near the mountaintop removal mining operations and the amount and nature of the mitigation required pursuant to recommendation three; and
- ◆ The cost to the mining interests of contributing such land and infrastructure development.

Clearly, where land companies own the land which is leased to the mining companies for mountaintop removal mining operations, the land companies will and should become players in this process.

The land trust should be governed jointly by the state and the local subdivisions where mountaintop removal mining is conducted. The land should be used to help secure the economic future of a region of our state where the outlook will be bleak if significant diversification and development is not soon forthcoming. Already, parts of the historical coal mining areas of our state are impoverished and destitute and the state has a legitimate interest, in fact a duty to help other communities avoid such a future.

VII. Conclusion

The committee has attempted to balance a number of sometimes competing interests, including, but not limited to the following:

- ◆ The legitimate interests of the mining industry and land companies in developing reserves and receiving a reasonable return on investment;
- ◆ The interests of the employees who gain from the jobs, wages and benefits which mining provides;
- ◆ The interests of suppliers and affiliated industries, and their employees, who depend on the mining industry for their very existence;
- ◆ The interests of those impacted directly by mountaintop removal mining operations who must endure the most negative impacts of the process;
- ◆ The interest of the state and its citizens who believe that the removal of mountains and the filling of valleys should be limited and deserves mitigation, if not compensation;
- ◆ The interests of the state, its subdivisions and their citizens in receiving the benefits, especially tax revenues, which mountaintop removal mining provides; and
- ◆ The interests of the environmental community, both those formally attached and those who simply consider themselves environmentalists.

The balancing of these and other interests resulted in the committee recommendations. They are sure to be controversial but, in the face of so controversial a topic as mountaintop removal mining, nothing less should be expected.

One other principle guided our deliberations: Whatsoever you would have others do unto you, do likewise unto them. Applying that principle to the testimony, the evidence and our own personal observations led this committee to adopt this report and to make recommendations which address our stated charge - the impact on the people.

Attachment A

Governor's Task Force on Mountaintop Removal and Related Mining Practices

Committee on the Impact on the People

Issues to be Considered

Area One: Purchase of Property and Impact on Communities

1. History of property acquisitions. How much property has been acquired in the past and where has it occurred?

The Division of Environmental Protection requested this information from the coal companies now in existence, but little information was returned. The companies allege that this type of information was not routinely maintained. What little information that was provided is a part of our record.

2. Conditions of property acquisitions. When and why do purchases occur and how is price determined?

The committee determined that there is no one answer to this question. Every company apparently has different policies. Testimony seemed to reveal that people who complain are the most likely to be bought out. The price of property acquisitions also is variable. One company provided testimony that it used a standard price of 130% of the fair market value. Other testimony indicated that only fair market value is used by other companies.

3. Impact on the communities. What is the impact on the community?

See the introductory section and recommendation three of the report.

4. Impact on Sellers. Can sellers find comparable housing even if they receive fair market value for their property?

Again, the answer to this question seems to vary from site to site. Some people indicated that they received ample compensation. Others indicated that they did not receive just compensation and that even fair market value did not provide them with enough money to relocate and establish a residence.

5. New Purchase Process. Should a new process for purchasing property be established, and if so, what should it be?

See recommendation three of the report.

Area Two: Claims for Damages

1. Current Claims Process. What is the current claims process? What are the obstacles and pitfalls?

The committee found that there is no formal claims process. The Division of Environmental Protection (DEP) is not a claims agency and never has been charged with being a claims agency. The committee found that DEP employees have in some ways been unfairly maligned for their so-called claims handling since that is not a function of DEP.

This is not to say that the DEP does not try to help citizens. The DEP does answer complaints and it does help citizens when violations of law or regulations do occur. DEP provided the committee the following description of their involvement:

When complaints of property damage are made to the DEP, an inspector makes a preliminary investigation by:

1. Visiting the complainant and making a preliminary inspection of the alleged damage. The preliminary investigation will include comparing the present condition of the property with that recorded in the pre-blast survey if one was conducted. If there is a change in the property or damage that cannot be readily attributed to some other cause, the inspector will then check the blasting records to ensure that all applicable laws and regulations have been followed.

2. If there are damages of uncertain origin the inspector will generally ask for help in evaluating the structure. This help usually comes from either a technical specialist from OSM or one of DEP's staff engineers or both if the damage involves a structure or an OSM Hydrologist and/or a DEP hydro geologist if it involves water supply loss or contamination.

3. If the results of the investigation indicate that some type of damage has occurred as a result of blasting, a notice of violation is issued for one or more of several possible violations i.e. "Exceeding the scaled distance formula or vibration limits", "Flyrock", "Offsite impacts", etc. The specific violation is determined by the facts surrounding the incident.

In many cases there is a change in a structure that either cannot be directly attributed to a specific cause or is inconsistent with the generally recognized types of blasting damage. In those cases a notice of violation is

not issued. In those cases the complainant is notified of DEP's findings and their appeal rights. The complainant does not give up any rights they may have in the court system by availing themselves of their rights under the state Surface Mining Act or the Federal Surface Mining Act. Generally speaking the claims for repairs and/or compensation for physical damages to structures or persons are handled by the mine operators insurance carrier.

4. In those cases where the alleged damage is water supply loss or contamination the investigation and violation process is much the same, but the State has the power and obligation to order and enforce the replacement of the water supply

The pitfalls and obstacles associated with this process are that the damages that are generally attributed to blasting by the complainant are identical in nature with many of the minor structural changes that are commonly found in buildings as they age. This similarity leads to distrust of the investigators by the property owner when the flaws are attributed to another causes i.e. "Changes in relative humidity", "Settling of the foundation", "Poor Drainage", etc.

In those cases where the property owner is not supported by the findings of the various investigating agencies and they decide to pursue other routes for compensation, generally the Civil Court system, the process can be time consuming and expensive. In order to prevail in the court system the plaintiff will need to employ an attorney and experts in both structural engineering and blasting.

It is also important to note that the various appeal bodies have shown a propensity for overruling the enforcement agencies when their findings have shown that questionable damages were caused by blasting.

2. Government Role. What roles do government agencies, including DEP and OSM, play in the claims process?

See the answer to question number one.

Since there is no formal claims process, the role played by DEP is problematic. They do provide evidence of violations of rules and regulations. DEP provided this answer to the question:

1. Generally speaking the governmental agencies do not get involved in monetary settlements. In those cases where a notice of violation is issued for damage to a water supply the appropriate , usually DEP, agency orders and monitors the replacement of the water supply.

2. *In those cases where there is a dispute concerning the monetary value of damages between the property owner and the mine permittee, the DEP is guided by Chapter 22, Article 3, Section 9(a)(9) which reads in part, "Provided, That nothing in this article may be construed as vesting in the director the jurisdiction to adjudicate property-rights disputes."*

3. New Claims Process. Should a new claims process be established and, if so, what should it be?

See recommendation five of the report.

Area Three: Blasting

The Division of Environmental Protection provided the answers to the first five questions in this area.

1. History. What is the history of blasting in the mountain top removal mining method?

While mountaintop removal is not new it has seen a recent surge of growth in both numbers and size of those permits employing this method of operation. Twenty years ago there was only one large mountaintop removal mine in southern West Virginia using the largest equipment available at that time, today there are several.

The blasting technique known as Cast Blasting was virtually unknown in West Virginia when the predominant method of surface mining was "Contour Mining". Contour mining involves excavating a bench around the side of the hill or mountain in order to recover the coal. These excavations are generally narrow, less than 200 feet wide, and do not lend themselves to moving the overburden with explosives. The width of the bench also limits the size of the overburden handling equipment.

With the evolution of very large area mines and mountaintop removal, the practice of moving large amounts of overburden with explosives rather than loaders and trucks has come to the forefront. This type blasting requires the use of larger total weights of explosives in order to be efficient. It also releases more energy into the air than the smaller blasts used in contour mining. While the same limits on air blast, vibration, and pounds of explosives allowed to be detonated within any eight milli-second period apply to cast blasting as any other type blasting, the total weight of explosives and length of the detonation are much larger. Twenty years ago a "Very Large" blast contained about 100,000 pounds of explosives while today blasts containing over 1,000,000 pounds are not uncommon.

It is the belief of the DEP that the vibrations felt by those residents in the coalfields when these large blasts are detonated are within regulatory limits. The limits in the

regulations are intended to prevent structural damage and do not really consider the nuisance value as the perception of nuisance is highly variable among individuals.

2. Current Laws and Policies. What laws and regulations now apply to blasting near residences and homes?

Copies of the Law and Regulations pertaining to Surface Mine Blasting are attached.

3. Pre-Blast Surveys and Notices. What is the current law regarding pre-blast surveys, and what notices, if any, are required before blasting occurs?

This information is contained in the attached sections of the Law and Regulations.

4. Enforcement. How are current laws regarding blasting enforced?

Every active surface mine is inspected at least 12 times per year. Once every calendar month on an irregular and unannounced schedule the Surface Mine Reclamation Inspector must make an inspection of all active surface mines assigned to him/her.

Eight of those inspections may be what is considered a partial inspection. A partial inspection consists of a site visit and checking for compliance of various laws and regulations with emphasis on water quality and the safety of the general public. A partial inspection would also include any other aspects of the operation that the inspector chooses to check on that particular visit. An inspection conducted as a result of a citizens complaint would usually be considered a partial inspection in that it would focus on a particular aspect of the operation

Four times per year (once each calendar quarter) the inspection must be what is deemed a "Complete" inspection. During a complete inspection the inspector must check all portions of the operation in enough detail to reasonably ensure that compliance with the performance standards that apply to that particular operation is being attained and maintained. A complete inspection includes a check of the administrative requirements of the law and regulations as well as the on the ground performance.

5. Measurement of Impact. Is there a way to measure the impact of blasting on affected properties?

Several types of highly sophisticated electronic and mechanical devices exist that are capable of measuring the stresses and strains induced in structures by various physical mechanisms including blasting. Some of these devices and their uses are described in the attached Bureau of Mines publication. These devices were used in the study which led to the development of today's regulatory vibration limits. The only device

whose ease of use makes it practical for every day use, the blasting seismograph, does not measure the "impact" but does measure vibration. It is used primarily as an enforcement tool to ensure compliance with vibration limits.

The use of those devices which actually measure the impact and the interpretation of the information provided by them is very expensive and would not be suitable for everyday field use.

6. Legislative Study. What are the results of the legislative interim committee study on blasting?

The results of the legislative study are not yet known.

7. New Blasting Laws or Policies. Should the laws and regulations relating to blasting be updated?

See recommendation six of the report.

CODE OF WEST VIRGINIA CHAPTER 22 ARTICLE 3
SURFACE COAL MINING AND RECLAMATION ACT.

Section 9

Permit application and contents

§22-3-9(e) Each applicant for a surface mining permit shall submit to the director as part of the permit application a blasting plan where explosives are to be used, which shall outline the procedures and standards by which the operator will meet the provisions of the blasting performance standards.

Section 13

General environmental protection performance standards for surface mining

§22-3-13(b)(15) (15) Ensure that explosives are used only in accordance with existing state and federal law and the rules promulgated by the director, which shall include provisions to:

- (A) Provide adequate advance written notice to local governments and residents who might be affected by the use of the explosives by publication of the planned blasting schedule in a newspaper of general circulation in the locality and by mailing a copy of the proposed blasting schedule to every resident living within one-half mile of the proposed blasting site: Provided, That this notice shall suffice as daily notice to residents or occupants of the areas;
- (B) maintain for a period of at least three years and make available for public inspection, upon written request, a log detailing the location of the blasts, the pattern and depth of the drill holes, the amount of explosives used per hole and the order and length of delay in the blasts;
- (C) limit the type of explosives and detonating equipment, the size, the timing and frequency of blasts based upon the physical conditions of the site so as to prevent: (i) Injury to persons; (ii) damage to public and private property outside the permit area; (iii) adverse impacts on any underground mine; and (iv) change in the course, channel or availability of ground or surface water outside the permit area;
- (D) require that all blasting operations be conducted by persons certified by the director; and
- (E) provide that upon written request of a resident or owner of a man-made dwelling or structure within one-half mile of any portion of the permit area, the applicant or permittee shall conduct a preblasting survey or other appropriate investigation of the structures and submit the results to the director and a copy to the resident or owner making the request. The area of the survey shall be determined by the director in accordance with rules promulgated by him or her;

TITLE 38
LEGISLATIVE RULE
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF MINING AND RECLAMATION

SERIES 2
WEST VIRGINIA SURFACE MINING
RECLAMATION RULE

§38-2-6. Blasting.

6.1. General Requirements. Each operator shall comply with all applicable state and federal laws in the use of explosives. A blaster certified by the Division of Environmental Protection shall be responsible for all blasting operations including the transportation, storage and use of explosives within the permit area in accordance with the blasting plan.

6.2. Blasting Plan. Each application for a permit, where blasting is anticipated, shall include a blasting plan. The blasting plan shall explain how the applicant will comply with the blasting requirements of the Act, this rule, and the terms and conditions of the permit. This plan shall include, at a minimum, information setting forth the limitations the operator will meet with regard to ground vibration and airblast, the basis for those limitations, and the methods to be applied in controlling the adverse effects of blasting operations.

6.3. Public Notice of Blasting Operations.

6.3.a. At least ten (10) days, but not more than thirty (30) days, prior to any blasting operations which detonate five (5) pounds or more of explosives at any given time, the operator shall publish, a blasting schedule in a newspaper of general circulation in the county of the proposed permit area. Copies of the schedule shall be distributed by certified mail to local governments, public utilities and each resident within one-half (2) mile of the blasting site. Unless blasting will occur on drainage structures and roads, such structures will be exempt from the one-half (2) mile notification area. The operator shall republish and redistribute the schedule at least every twelve (12) months and revise and republish the schedule at least ten (10) days, but not more than thirty (30) days, prior to blasting whenever the area covered by the schedule changes or actual time periods for blasting significantly differ from that set forth in the prior schedule. The schedule shall contain at a minimum:

6.3.a.1. Name, address and telephone number of the operator;

6.3.a.2. Identification of the specific areas in which blasting will take place;

6.3.a.3. Dates and times when explosives are to be detonated;

6.3.a.4. Methods to be used to control access to the blasting area; and

6.3.a.5. Types and patterns of audible warning and all clear signals to be used before and after blasting.

6.3.b. Surface blasting activities incident to underground coal mining are not subject to the requirements of subdivision 6.3.a of this subsection so long as all local governments and residents or owners of dwellings or structures located within one-half (2) mile of the blast site are notified in writing by the operator of proposed times and locations of the blasting operation. Such notice of times that blasting is to be conducted may be announced weekly, but in no case less than twenty-four (24) hours before the blasting will occur.

6.4. Blast Record.

6.4.a. A blasting log book formatted in a manner prescribed by the Director shall be kept current daily and made available for inspection at the site by the Director and upon written request by the public.

6.4.b. The blasting log shall be retained by the operator for three (3) years.

6.4.c. The blasting log shall, at a minimum, contain the following information:

6.4.c.1. Name of permittee, operator or other person conducting the blast;

6.4.c.2. Location, date and time of blast;

6.4.c.3. Name, signature and certification number of blaster-in-charge;

6.4.c.4. Identification of nearest structure not owned or leased by the operator and direction and distance, in feet, to such structure;

6.4.c.5. Weather conditions;

- 6.4.c.6. Type of material blasted;
- 6.4.c.7. Number of holes, burden and spacing;
- 6.4.c.8. Diameter and depth of holes;
- 6.4.c.9. Types of explosives used;
- 6.4.c.10. Weight of explosives used per hole;
- 6.4.c.11. Total weight of explosives used;
- 6.4.c.12. Maximum weight of explosives detonated within any eight (8) millisecond period;
- 6.4.c.13. Method of firing and type of circuit;
- 6.4.c.14. Type and length of stemming;
- 6.4.c.15. If mats or other protections were used;
- 6.4.c.16. Type of delay detonator used and delay periods used;
- 6.4.c.17. Seismograph records and air blast records shall include but not be limited to:

6.4.c.17.A. Seismograph and air blast reading, including exact location, date, and time of reading and its distance from the blast;

6.4.c.17.B. Name of person and firm taking the readings;

6.4.c.17.C. Name of person and firm analyzing the record, where analysis is necessary;

and

6.4.c.17.D. Type of instrument, sensitivity and calibration signal or certification of annual calibration;

6.4.c.18. Shot location;

6.4.c.19. Sketch of delay pattern to include the entire blast pattern and all decks; and

6.4.c.20. Reasons and conditions for unscheduled blasts.

6.5. Blasting Procedures.

6.5.a. All blasting shall be conducted during daytime hours, between sunrise and sunset; provided, that the Director may specify more restrictive time periods based on public requests or other consideration, including the proximity to residential areas. No blasting shall be conducted on Sunday. Provided, however, the Director may grant approval of a request for Sunday blasting if the operator demonstrates to the satisfaction of the Director that the blasting is necessary and there has been an opportunity for a public hearing. Blasting shall not be conducted at times different from those announced in the blasting schedule except in emergency situations where rain, lightning or other atmospheric conditions, or operator or public safety requires unscheduled detonations. Blasting shall be conducted in such a way so as to prevent injury to persons, damage to public or private property outside the permit area, adverse impacts on any underground mine, and change in the course channel, or availability of surface or groundwater outside the permit area.

6.5.b. Safety precautions:

6.5.b.1. Three (3) minutes prior to blasting, a warning signal audible to a range of one-half (2) mile from the blast site will be given. This preblast warning shall consist of three (3) short warning signals of five (5) seconds duration with five (5) seconds between each signal. One (1) long warning signal of twenty (20) seconds duration shall be the "all clear" signal. Each person in the permit area, and each person who resides or regularly works within one-half (2) mile of the permit area shall be notified of the meaning of these signals;

6.5.b.2. All approaches to the blast area shall be guarded against unauthorized entry prior to and immediately after blasting;

6.5.b.3. All charged holes shall be guarded and posted against unauthorized entry; and

6.5.b.4. The certified blaster shall be accompanied by at least one other person at the time of firing of the blast.

6.5.c. Airblast Limits:

6.5.c.1. Airblast shall not exceed the maximum limits listed below at the location of any dwelling, public buildings, school, church, or community or institutional building outside the permit area.

Lower frequency limit of measuring system in Hz (+ 3 dB)	maximum level, in db
0.1 Hz or lower --flat response ¹	134 peak.
2 Hz or lower -- flat response	133 peak.
6 Hz or lower -- flat response	129 peak.
C-weighted--slow response ¹	105 peak dBC.

¹ Only when approved by the Director

6.5.c.2. If necessary to prevent damage, the Director may specify lower maximum allowable airblast levels for use in the vicinity of a specific blasting operation.

6.5.c.3. Monitoring. The operator shall conduct periodic monitoring to ensure compliance with the airblast standards. The Director may require airblast measurement of any or all blasts and may specify the locations at which such measurements are taken. The air blast measuring systems used shall have an upper-end flat-frequency response of at least 200 Hz.

6.5.d. Flyrock, including blasted material, shall not be cast from the blasting site more than half way to the nearest dwelling or other occupied structure, beyond the area of control specified in subdivision 6.5.e of this subsection, or in no case beyond the bounds of the permit area.

6.5.e. Access to the blast area shall be controlled against the entrance of livestock or unauthorized personnel during blasting and for a period thereafter until an authorized person has reasonably determined:

6.5.e.1. That no unusual circumstances exist such as imminent slides or undetonated charges, etc.; and

6.5.e.2. That access to and travel in or through the area can be safely resumed.

6.5.f. At the request of the Director, the operator shall monitor air blast levels using an instrument with an upper-end flat-frequency response of at least 200 Hz.

6.5.g. Blast design.

6.5.g.1. An anticipated blast design shall be submitted if blasting operations will be conducted within:

6.5.g.1.A. 1,000 feet of any building used as a dwelling, public building, school, church, or community or institutional building outside the permit area; or

6.5.g.1.B. 500 feet of an active or abandoned underground mine.

6.5.g.2. The blast design may be presented as part of a permit application or at a time, before the blast as approved by the Director.

6.5.g.3. The blast design shall contain sketches of the drill patterns, delay periods, and decking and shall indicate the type and amount of explosives to be used, critical dimensions, and the location and general description of structures, including protected structures, to be protected, as well as a discussion of design factors to be used, which protect the public and meet the applicable airblast, flyrock, and ground-vibration standards.

6.5.g.4. The blast design shall be prepared and signed by a certified blaster.

6.5.g.5. The Director may require changes to the design submitted.

6.5.h. No blasting within five hundred (500) feet of an underground mine not totally abandoned shall be permitted except with the concurrence of the Division of Environmental Protection, the operator of the underground mine and MSHA. The Director may prohibit blasting on specific areas where it is deemed necessary for the protection of public or private property or the general welfare and safety of the public.

6.5.i. The operator may use the following scaled distance formulas to determine the allowable maximum weight of explosives (lbs) to be detonated in any eight millisecond period without seismic monitoring:

Formula	Distance in Feet from the Blasting Site to the Nearest Protected Structure
---------	--

$W = (D/50)^2$	0 - 300 feet	
$W = (D/55)^2$	301 - 5,000 feet	=
$W = (D/65)^2$	5,001 feet or greater	

W = Weight of explosives in pounds

D = Distance to the nearest structure

6.5.j. The scaled distance formulas need not be used if a seismograph measurement at the nearest protected structure is recorded and maintained for every blast. The peak particle velocity in inches per second in any one of the three mutually perpendicular directions shall not exceed the following values at any protected structure:

Seismograph Measurement	Distance to the Nearest Protected Structure
1.25	0 - 300 feet
1.0	301 - 5,000 feet
0.75	5,001 feet or greater

6.5.k. The Director may require a seismograph recording of any or all blasts based on the physical conditions of the site in order to prevent injury to persons or damage to property.

6.5.l. The maximum allowable ground vibration as provided in subdivisions 6.5.i and 6.5.j of this subsection shall be reduced by the Director, if determined necessary to provide damage protection.

6.5.m. The maximum airblast and ground-vibration standards of subdivisions 6.5.c and 6.5.j of this subsection shall not apply at the following locations:

6.5.m.1. At structures owned by the permittee and not leased to another person.

6.5.m.2. At structures owned by the permittee and leased to another person, if a written waiver by the lessee is submitted to the Director before blasting.

6.6. Blasting Control for Other Structures.

6.6.a. All other structures in the vicinity of the blasting area which are not defined as protected structures at subsection 2.96 of this rule shall be protected from damage by establishment of a maximum allowable limit on ground vibration, specified by the operator in the blasting plan and approved by the Director.

6.6.b. The plan submitted under this subsection shall not reduce the level of protection for other structures otherwise provided for in this rule.

6.7. Certified Blasting Personnel. Each person responsible for blasting operations shall be certified. Each certified blaster shall have proof of certification either on his person or on file at the permit area during blasting operations. Certified blasters shall be familiar with the blasting plan and blasting related performance standards for the operation at which they are working.

6.8. Preblast Survey.

6.8.a. At least thirty (30) days prior to beginning of blasting operations, the operator shall inform in writing all residents or owners of manmade dwellings or structures located within one-half ($\frac{1}{2}$) mile of the permit area on how to request a preblast survey. Requirements for a preblasting survey shall be the following:

6.8.a.1. Upon a written request to the Director by a resident or owner of a manmade dwelling or structure that is located within one-half (2) mile of the permit area, the operator shall conduct a preblast survey of the dwelling or structure and submit a report of the survey to the Director. If a structure is added to or renovated subsequent to a preblast survey, a survey of such additions and/or renovation shall be performed upon request of the resident or owner.

6.8.a.2. The operator shall conduct the preblast survey in such a manner which will determine the condition of the dwelling or structure, and to document any preblasting damage and

to document other physical factors that could reasonably be affected by the blasting. Assessments of the preblasting condition of structures such as pipes, cables, transmission lines, wells and water systems shall be based on the exterior or ground surface conditions and other readily available data. Special attention shall be given to the preblasting condition of wells and other water systems.

6.8.a.3. A written report of the survey shall be prepared and signed by the person or persons approved by the Director who conducted the survey. Copies of the report shall be provided to the person requesting the survey and to the Director.

6.8.a.4. Surveys requested more than ten (10) days before the planned initiation of blasting shall be completed before blasting operations begin.

6.8.a.5. Any person who requests a survey who disagrees with the results of the survey may submit a detailed description of the specific areas of disagreement.

Attachment B

<u>Meeting Date</u>	<u>Place</u>	<u>Purpose</u>
September 22, 1998 - 3:00 p.m.	Chapmanville Middle School Chapmanville, WV	Committee meeting to receive evidence from the Division of Environmental Protection
September 22, 1998 - 6:00 p.m.	Chapmanville Middle School Chapmanville, WV	Public Hearing
October 6, 1998 - 10:00 a.m.	Marshall Graduate College South Charleston, WV	Hearing for the purpose of receiving testimony from invited interest groups and their representatives
October 22, 1998 - 9:00 a.m.	Marshall Graduate College South Charleston, WV Mingo and Logan Counties	Site visit and committee meeting to review report outline
November 9, 1998 - 10:00 a.m.	Marshall Graduate College South Charleston, WV	Committee meeting to review the draft report

Attachment C

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