

**USE OF EXPLOSIVES**  
**REPORT OF THE VIRGINIA ADVISORY LEGISLATIVE COUNCIL**  
**TO**  
**THE GOVERNOR**  
**AND**  
**THE GENERAL ASSEMBLY**



**SENATE DOCUMENT NO. 17**

**COMMONWEALTH OF VIRGINIA**  
**DIVISION OF PURCHASES AND SUPPLY**  
**RICHMOND**  
**1979**

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**VIRGINIA ADVISORY LEGISLATIVE COUNCIL**

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G. William White, Jr., Deputy Director  
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**Use of Explosives**

**Report of the**

**Virginia Advisory Legislative Council**

**To**

**The Governor and the General Assembly of Virginia**

**Richmond, Virginia**

**January, 1979**

To: Honorable John N. Dalton, Governor of Virginia

and

The General Assembly of Virginia

**INTRODUCTION**

It appearing to the General Assembly that ambiguities exist in the laws regulating the control and use of explosives, therefore, in the 1977 Session, it agreed to Senate Joint Resolution No. 145, the text of which follows:

**Senate Joint Resolution No. 145**

WHEREAS, explosives are widely used by both the private and public sectors in connection with construction projects, mining activities, and other legitimate industrial uses; and

WHEREAS, although explosives often serve a beneficial purpose, their improper use represents a potential hazard to the environment of our natural resources, highways, manmade structures, waterways, and public health and safety; and

WHEREAS, Virginia law is often unclear and ambiguous as to the use of explosives and to what extent the various State governmental agencies can and should regulate permissive uses of explosives; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Virginia Advisory Legislative Council is hereby requested to conduct a study of the various permissive uses of explosives in both the private and public sectors and to make recommendations which are designed to protect our environment, natural resources, highways, manmade structures, waterways, and public health and safety from the improper use of explosives. The Council shall include in its study a review of the laws regulating the use of explosives and make such recommendations as it deems necessary to improve the regulatory role of State agencies in the enforcement of laws and regulations governing the permissive use of explosives. All State agencies shall assist the Council in its work.

The Council shall report and make such recommendations, including legislation, as it deems necessary no later than November one, nineteen hundred seventy-seven.

Pursuant to the directive of the resolution, the Council selected Joseph V. Gartlan, Jr., a member of the Senate and of the Council, the Chairman of a Committee to study the matter assigned. Committee members selected by the Council were: Daniel W. Bird, Jr., an attorney and a member of the Senate, John C. Buchanan, a physician and member of the Senate, Orby L. Cantrell, a business man and member of the House of Delegates, Edward W. Grandis, an attorney, Dr. J. Richard Lucas, head of the Department of Mining & Minerals Engineering of the Virginia Polytechnic Institute and State University, Donald A. Mcglothlin, Sr., an attorney and member of the House of Delegates, Ford C. Quillen, an attorney and member of the House of Delegates, and W. Ward Teel, a businessman and member of the House of Delegates. Delegate Quillen was selected as Vice-Chairman.

The Committee met and held public hearings in Wise, Virginia in 1977. Time did not permit further exploration of areas uncovered in the study, so that it was necessary to expand and continue it. To this effect, Senate Joint Resolution No. 15 of the 1978 General Assembly was adopted, the text of which is as follows:

WHEREAS, the General Assembly in its session of nineteen hundred seventy-seven, by Senate Joint Resolution No. 145, requested the Virginia Advisory Legislative Council to study the use of explosives, and

WHEREAS, the Council uncovered areas in State and federal regulation which it was unable to fully explore in the time allocated for the study, and it appears necessary that it be continued; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Virginia Advisory Legislative Council is hereby requested to continue its study of the various permissive uses of explosives in both the private and public sectors and to make recommendations which are designed to protect our environment, natural resources, highways, manmade structures, waterways, and public health and safety from the improper use of explosives. The Council shall include in its study a review of the laws and regulations regulating the use of explosives and make such recommendations as it deems necessary to improve the regulatory role of State agencies in the enforcement of laws and regulations governing the permissive use of explosives. All State agencies shall assist the Council in its work.

The Council shall report and make such recommendations, including legislation, as it deems necessary no later than November one, nineteen hundred seventy-eight.

The same members constituted the continued study committee.

The Committee is indebted to Frank Linkous, Chief, Division of Mines and Quarriers of the Department of Labor and Industry, Doug Stone of the Department of Conservation & Economic Development, Joe Fiedorek and Claude Reich of the Mining Safety & Health Administration of the United States Department of Labor, and R. Dean Boddorff, Safety Consultant of the Institute of Makers of Explosives. Assistance to the Committee was also given by The Department of Highways, represented by Frank Norris, Resident Engineer, and the Virginia Road Builders Association, represented by Mike Fawley.

The Committee, submitted its report to the Council and we have reviewed and studied it with care. We now submit the following report:

### **ESSENTIAL PROBLEMS**

Blasting is used mainly in the State of Virginia in highway construction and in mining. It is regulated in detail by the federal Occupational Safety & Health Standards Act; however, these standards are designed for the protection of the employee, and not for the protection of the public.

There are five stages leading up to the final stage in the use of explosives; (i) manufacture (ii) transportation (iii) storage (iv) handling and (v) blasting. These steps are stages which exist regardless of the reason for the use of the explosives.

## A. HIGHWAY CONSTRUCTION

Blasting which is done by, or on behalf of the Virginia Department of Highways is in two categories, that done (i) by the Department itself or (ii) by sub-contractors. The Department has its own safety rules, but relies on guidelines set out by the Department of Labor & Industry. Contracts between the Department and sub-contractors require adherence to the rules and guidelines on the part of the sub-contractor.

Settlement of damage claims is efficient. Funds are withheld by the Department when payment is made to sub-contractors to allow for settlement of claims, so no problem of insolvency or insurance coverage are presented. The Department simply pays the money withheld on behalf of the contractor to the claimant, upon a showing that the claim is bona fide. The Department itself enjoys the defense umbrella of governmental, or sovereign, immunity. The sub-contractors are denied this defense by statute (§ 8.01-224, Code of Virginia).

Concern was expressed by representatives of the road building industry that in an effort to put a stop to any unsafe and incompetent use of explosives which might exist, over-regulation might result. To an extent, the Council shares this concern.

## B. MINING

The larger problem area in the use of explosives is in the mining industry, both surface mining and deep mining. In the Southwest area of Virginia, blasting goes on continuously, and deep feelings are generated on both sides of the issue. There are no easy solutions.

The Division of Mines of the Department of Labor & Industry is to be complimented on the excellent work it has done in the area of safety promotion. Under the authority of § 45.1-104 (b) of the Code of Virginia, safety rules and regulations have been promulgated by the Chief. This includes certification of blasters.

The Division of Mined Land Reclamation of the Department of Conservation & Economic Development, as the Virginia regulating agency to enforce the Federal Surface Mining Control and Reformation Act of 1977 (Public law 95-87), has a stake in the problem.

In order to avoid administrative confusion and duplication of effort between the two agencies, a Memorandum of Understanding was entered into by and between the two agencies, effective February 3, 1978. A copy of this Agreement is included in this Report as Appendix I.

One major problem is manpower. Each inspector employed by the Division of Mines has responsibility of seventy-five mines. While the law requires inspection of each mine every ninety (90) days, an inspector is doing an excellent job when he is able to make an inspection of a mine twice a year. Moreover, industry is much more generous in its salaries to experienced people, and the State finds itself a training ground for persons seeking employment in the private sector of the mining industry.

Certification program courses are being conducted by the major power companies as a preliminary to taking the certification examination required by the Division of Mines & Quarries by persons interested in becoming blasters.

This difficult examination is now being taken successfully by three out of five persons. A problem is that the Virginia law contains a grandfather law shielding persons engaged in blasting activities before the regulation was promulgated. This problem will be dealt with in the recommendations of the Council.

There is much overlapping and confusion in the federal laws dealing with blasting. As pointed out, OSHA regulates it. This regulation, is however, for the protection of the employee. The Mining Enforcement and Safety Administration (MESA) did regulate it, but this agency was transferred from the Department of Labor to the Department of Interior, and is now the Mine Safety and Health Administration (MSHA). MSHA is now in the process of preparing new regulations for both the surface and underground mining. When these regulations will be forthcoming in final form is anybody's guess. Moreover, they only apply to mining. It is proper, therefore, that Virginia should

deal with its own problems, rather than wait for federal intervention.

## **RECOMMENDATIONS**

### **A. POWER TO REGULATE**

The Council finds that the use of explosives is an art as well as a science. Techniques have constantly improved; much faster than can be effectively dealt with by statute law. For this reason, the Council recommends that regulation be flexible, and that it be left to the experts. The Department of Labor and Industry, has been demonstrated to be the most capable and best equipped agency to handle the problem. The Council recommends that this power be given solely to it. This power should apply no matter what industry involved, whether it be mining, highway use, or any other purpose for which blasting is permitted.

### **B. MANUFACTURE**

Any law designed to regulate the manufacture of explosives should come from the Congress of the United States. This is an interstate matter involving commerce. All evidence indicates a responsible attitude on the part of explosives manufacturers.

### **C. TRANSPORTATION**

The Council finds that a void exists in regulations relating to transportation of explosives. Specific regulations to govern such transportation should be given the regulating authority.

### **D. STORAGE**

No regulation appears to exist respecting storage of explosives except when stored on mine property. Jurisdiction to regulate storage of all explosives should be specifically given to the regulating agency with a mandate to enforce it.

### **E. HANDLING AND USE**

As pointed out, the Division of Mines and Quarries of the Department of Labor and Industry has initiated a tough certification program. This program should be expanded to include persons engaged in blasting operations for all purposes. Also, since new techniques are constantly being developed, the Commonwealth has a need to know who is practicing these techniques. "The grandfather clause" in the statute should be closely examined, so as to either to require certification for everybody regardless of previous experience or to limit persons "grandfathered" to practice only the techniques which were in the state of the art at the time they were "grandfathered".

## **CIVIL LIABILITY**

The Council, as a corollary to its study, examined the laws of strict liability as it relates to liability for damages resulting from blasting operations. The rule of strict liability applies to direct damage to property or persons. ( Worly v. Hungerford , 215 Va. 377).

The question of indirect, or consequential damages remains unsettled. Green v. Thomas , 205 Va. 903.

It was the conclusion of the Council, however, that serious policy questions were presented, and that a detailed study of this problem was beyond its charge, therefore it did not examine it in any depth, nor does it make any recommendation thereto.

## CONCLUSION

The Council respectfully requests the Committee on Appropriations of the House of Delegates and the Committee on Finance of the Senate to look as favorably as economic circumstances may permit on the requests from the Department of Labor and Industry for funds to carry out the regulatory powers recommended that it be given by this Report.

Respectfully submitted,

Senator Lawrence Douglass Wilder, Chairman

Delegate C. Hardaway Marks, Vice-Chairman

Delegate George E. Allen, Jr.

Senator Peter K. Babalas

Delegate Richard M. Bagley

Delegate Vincent F. Callahan, Jr.

Senator James T. Edmunds

Senator Joseph V. Gartlan, Jr.

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