

RESULTS OF ENFORCING OSHA 1910.96

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INTRODUCTION

It is my impression that the Clinton Administration is addressing several key issues that impact our national economy. Three of those key issues are;

1. The Environment
2. Job Development
3. Health Care and Health Care Costs

The issue addressed in this outline impacts all three of these key issues. The proposals in this outline could save our economy nearly \$3 billion in health care and societal costs annually, create over 60,000 new jobs with annual salaries exceeding \$26,000 per year, and save thousands of lives each year from radon induced lung cancer.

This outline provides an overview of how OSHA Rule 1910.96 can be cost-effectively enforced by the United States Department of Labor and how the enforcement of this already existing rule will positively impact the nation's economy.

UNDERSTANDING THE RADON RISK

With the exception of cigarette smoking, radon is the leading cause of lung cancer in the United States. In 1986, the United States Surgeon General, the American Lung Association and the Environmental Protection Agency began repeatedly recommending that everyone test their homes for radon, yet, to date, fewer than 7% of American homes have been tested for radon. Even fewer workplaces have been tested for this deadly carcinogen.

The Environmental Protection Agency action guideline for radon is 4 picocuries per liter of air (pCi/l). Bear in mind that the EPA action guideline is not a safety standard. EPA's risk estimate for lifetime exposure to radon at an average level of 4 pCi/l ranges from 1-in-100 to a 1-in-20 risk of lung cancer. This risk should be compared with other carcinogens which are currently regulated, such as benzene and asbestos. The safety standards for benzene and asbestos are set at 1-in-1,000,000 risk of death over a lifetime of exposure. Hundreds of thousands of Americans live and work in structures that expose them to annual radon levels which are greater than the radiation exposures suffered by the people living in the vicinity of the Chernobyl nuclear power plant in 1986, the year of the disaster (Kerr 1989).

There are numerous physical and biological factors influencing the dose to target cells. Dosimetric considerations suggest that exposure to elevated radon levels at an early age has a greater effect than exposure during adulthood. Additional research has developed time-since-exposure models that imply that the effect of exposure wanes as the interval since exposure lengthens (Samet 1991). With the proper detection and mitigation of radon levels in the workplace, radon induced lung cancers could be reduced significantly over a 15 year time span (BIER IV, 1989).

RADON DETECTION

Unlike many other indoor air contaminants radon cannot be sensed by man. An employee or homeowner cannot see, taste or smell radon. The only way that radon levels can be determined is by using the appropriate detection devices. Radon detection devices all work in varying ways and with varying degrees of accuracy. The Environmental Protection Agency recommends that the public only use those radon detection devices and testing

companies that have passed the EPA Radon Measurement Proficiency program and are EPA-RMP listed. EPA-RMP is currently a voluntary program in which radon testing companies and manufacturers participate to exhibit the accuracy of their testing devices and acumen. The EPA maintains a database of all RMP participants that have successfully completed the program. The EPA distributes the RMP list to state radiation program offices who distribute the list to the public.

The Radon Industry

The radon industry currently consists of approximately 200 individuals or companies that specialize in providing radon services or products only. Another 4000 individuals or companies provide radon services as an adjunct to their primary business. Over 95% of the firms involved in the radon industry are small businesses that provided an estimated twenty million dollars in products and services last year. The service infrastructure, within the radon industry, was established during the peak market period in 1987 when the radon market exceeded eighty million dollars and was anticipated, by the Wall Street Journal, to evolve into a six billion dollar industry. Unfortunately, inaction by the Bush Administration led to a floundering radon market and a downward spiral in the radon industry resulting in massive layoffs. Small businesses downsized their operations by cutting, in some instances, as much as 90% of their staff. Many of these businesses found themselves overbuilt for the market and cash strapped. The radon industry still has the infrastructure to meet an overnight market demand of \$120 million. Additional labor requirements, at the \$120 million dollar market level, would add over six thousand full time jobs, 1200 of which would be radon only while another 4800 jobs would be mixed service (REI Survey 1993).

RADON'S IMPACT ON HEALTH CARE COSTS

Direct health care and treatment costs incurred by a lung cancer patient following the onset of disease are about \$50,000 per year (Oster, Colditz & Kelly 1984). The EPA estimates that approximately 15,000 people per year die of radon induced lung cancer resulting in over \$750 million in direct medical costs per year, the majority of which is paid for directly by the government. If the indirect costs attributed to lost productive income for families and the societal costs of early social security payments are added to the direct medical costs, radon induced lung cancer costs Americans nearly \$3 billion annually.

ENFORCEMENT OF 1910.96

According to the morality rates detailed in the BIER IV study, annual health care savings will begin approximately 10 to 15 years after enforcement of the OSHA 1910.96 rule is initiated. Additionally, enforcement of the OSHA 1910.96 rule, as it pertains to radon, would create an immediate increase in the market demand for radon testing and mitigation in the workplace. It is estimated that strict enforcement of this rule would generate a \$1.8 billion market for the radon industry creating over 60,000 new jobs with average salaries exceeding \$26,000 per year. The average compliance costs, for most employers, should be under \$300. Enforcement of the OSHA 1910.96 rule can be initiated immediately. Continued joint Department of Labor and Environmental Protection Agency press releases detailing strict enforcement policies regarding radon would initiate widespread employer testing for radon in the workplace. Corporate safety compliance officers can be faxed the new compliance requirements automatically by utilizing a computerized information system that will not only send the compliance requirements but will also receive, sort and evaluate finished compliance reports from safety officers. The system can be set up so that employer compliance reports are faxed to the Department of Labor over a 900 line which would automatically charge the appropriate compliance fee based on the length of the facsimile.

CONCLUSION

Many of the attitudes that Americans have about safety in the home originate in the workplace. By enforcing the existing OSHA rule 1910.96 in the workplace more private citizens will be lead to test for radon in their homes.

Enforcement of the OSHA 1910.96 rule would:

1. Create over 60,000 new jobs.
2. Potentially reduce lung cancer health care and societal costs by nearly \$3 billion per year.
3. Create a safer environment for future generations to enjoy and prosper in.