United States
Environmental Protection
Agency

Office of Noise
Abatement and Control
Washington DC 20460

EPA

The Environmental Frontier: Noise Control

Opportunities for

Engineers
Lawyers
Scientists
Urban Planners
Business Administrators
Public Administrators
Public Health Planners

Engineers, lawyers, scientists, urban planners . . . There is a need for your talents and skills in an important new area of environmental protection—noise control.

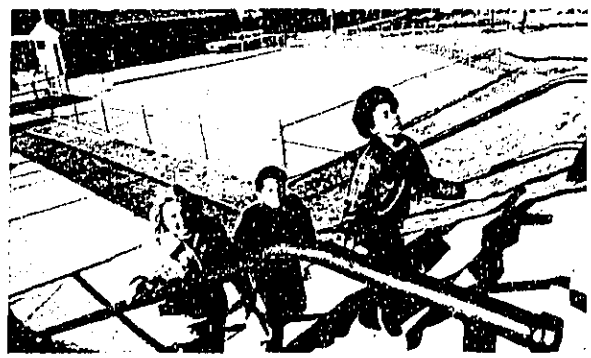
It's a field of many unanswered questions and unsolved problems. It's an environmental challenge wide open to creative planning and new directions. It's an opportunity to influence policy decisions that will affect our quality of living today and in years to come.

Why Noise Control?

Noise is one of the major environmental problems facing our country today. It's not a new problem. In Rome in the first century B.C., Julius Caesar passed a noise ordinance banning chariots from the streets at night. But it wasn't until the start of the Industrial Revolution in this country that serious noise problems began to develop. And, in the last thirty years, noise levels have been accelerating with unprecedented speed. Noise has become an urban menace, a pollutant as pervasive as the effects of impure water or dirty air. The number of high-intensity noise sources has increased dramatically—there are more cars, trucks, motorcycles, and other vehicles on our highways than ever before. There are more industrial plants, more machinery, more of everything that produces excessive noise. The noise problem has become an integral part of modern life.

Perhaps the most serious consequence of noise is its effect on people's health. Noise loud enough to cause hearing loss is virtually everywhere today. It is estimated that at least 20 million Americans are exposed daily to noise that is permanently damaging to their hearing. Noise interferes with conversation, work, rest and recreation, and sleep. Noise can produce serious physical and psychological stress. The body reacts to such stress with increased adrenaline, changes in heart rate, and elevated blood pressure. Growing evidence suggests possible links between noise and heart problems, high blood pressure, and negative effects on fetal development in the womb.

The noise problem in America is very real and it is growing steadily worse. No longer just an urban problem, noise intrudes into our suburbs and even into the countryside. Noise detracts from the quality of our lives and adversely affects the health and well-being of our citizens.



Seeking Solutions

Cities and citizens, around the country, are beginning to find creative solutions to their noise problems. Citizens are lobbying for noise ordinances and enforcement of noise laws. Cities are developing noise control programs and hiring personnel to implement them.

For instance, in Boulder, Col., a concerned citizen formed his own committee, surveyed the community to discover the most annoying noise sources, and then drafted an ordinance. The ordinance included noise level standards for both vehicular and non-vehicular noise, based on evidence gathered by the committee. The ordinance was presented to the city manager and passed by the city council several years ago.

In New York City, the Bureau of Noise Abatement identifies the most annoying and harmful noise sources and then seeks technological and legal solutions. For instance, subway noise, which affects about 4.5 million people every day, is the target of a ten-year program to reduce harmful noise levels. The city regulates all kinds of construction equipment and also has a truck noise enforcement program.

States are also encouraging local communities to start noise control programs. In Florida, the noise control section of the Department of Environmental Regulations has helped more than 100 cities and counties in the last five years develop some type of noise program. The noise control staff consists of only two people, yet it has trained more than 500 local officials in various aspects of environmental noise or motor vehicle noise enforcement.

El Segundo, Calif. has tried a unique approach to noise control. The city council purchases quiet equipment whenever possible. This is one example of a community using its purchasing power to induce manufacturers to produce quieter products.

EPA's Role

The U.S. Environmental Protection Agency is also helping cities and states cope with noise problems. The Noise Control Act of 1972 specified that the EPA regulate new products in commerce that are "major sources of noise" and work with state and local governments to create a quieter environment.

Although much of its recent activity has been directed toward regulation of new products, the EPA Noise Office has begun emphasizing state and local programs. In 1978 the Congress passed the Quiet Communities Act which gives EPA added authority to help communities develop noise control programs. In the last several years, the number of local programs has more than doubled. While the primary responsibility for noise control rests with local governments, EPA offers technical assistance to cities and communities. The Quiet Communities Experiment is one project intended to show how to apply the best available techniques to control noise at the local level. The emphasis is on action by the local government aided by technical assistance and support from EPA. Another EPA program, Each Community Helps Others (ECHO), is designed to assist communities in solving particular noise problems. Community Noise Advisors, who have been selected by EPA, assist certain communities in solving particular noise problems. These communities then share their experiences in noise control with other cities and towns.

State and local efforts to control noise are essential, but Federal regulation is necessary to reduce noise at the source. Based on considerations of best available technology, cost-effectiveness, and estimated health and welfare benefits, regulations have been developed for a variety of products, primarily construction and transportation equipment. EPA has also begun a labeling program to indicate both the noise generating characteristics of selected products and the effectiveness of products sold for the purpose of reducing noise.

But these efforts are only a beginning. Controlling noise has proven a difficult task to accomplish. These pioneering programs alone, though imperative, are not enough to solve the problem. The public remains largely unaware of the serious consequences of noise. And the very nature of the problem—its subtle, invisible, odorless effect—further complicates the efforts to reduce and control excessive noise. Professionals are needed to deal with these complexities and to initiate new and creative solutions.

How Could You Contribute?

If you would like to make a unique contribution in a new and growing field, noise control might be just the thing you've been looking for. A wide range of talents and skills are needed, as well as a commitment to serve, to perceive problems, and to apply specialized knowledge and capabilities to work out solutions. The rewards will be many—the chance to develop as a professional in a new field with unusual challenge and possibilities, and to witness your efforts making a difference in the quality of American life.

What would you do as a professional in the noise control field?

As a lawyer you might be involved in litigation among environmentalists, government agencies, and industries affected by the EPA regulations. For instance, a young attorney in the Noise Enforcement Division of the EPA worked on a case involving 13 air compressor manufacturers and four truck manufacturers that objected to several aspects of proposed noise regulations to quiet these products. The attorney was involved in discussions with senior partners of various law firms and in writing the brief of the U.S. Court of Appeals.

If your background is in science or engineering, you might be involved in predicting and measuring noise levels, conducting and analyzing noise measurement surveys, and reviewing noise potentials of new facilities in your area. For instance, you might determine the best location for a new manufacturing plant and assist in the planning, design, construction, and installation of the plant to achieve desirable noise levels.

Or, if you are an urban planner, you would assist cities and communities in developing noise control programs and effective enforcement methods. You might develop options for the city to protect residential areas from excessive noise. A mass transit system might be better planned with your insights on effective abatement tactics.

Here are a few examples of young professionals who enjoy the challenge of finding answers and solutions to the problems of noise.

Lon Loken
MPH, University of Minnesota

Lon Loken is working in noise and air pollution for the City of Bloomington, Minnesota and says he is witnessing a "snowball effect" as more and more cities in Minnesota are developing noise control programs. "I enjoy what I do," he says, which includes noise measurement surveys, "on the street noise enforcement," answering citizen complaints, and reviewing the noise and air pollution potentials of new facilities coming to town. "I enjoy the wide variety of noise problems I encounter and the satisfaction that comes from helping people on a day to day basis," he says. His advice to a professional considering a career in noise control would be to take several courses in acoustics before entering the field. Lon received a B.A. from Hamline University and a Master of Public Health from the University of Minnesota.

Tom Martin
MBA, City College, Seattle

Tom Martin works for the State and Local Programs Division of EPA's Office of Noise Abatement and Control, which he considers "an opportunity few other organizations could match, if only because noise programs throughout the country are, with a few exceptions, in the ground-breaking stages." The central element in Tom's job is the administration of grants to lay foundations for noise control programs. This requires coordinating efforts in the ten regional offices, and maintaining contacts with state and municipal governments. Tom sees that noise is generally viewed as a problem which can best be solved at the local level, therefore, "in noise control efforts, the relationship between the various levels of government is not one of mandates and imposition. Instead it involves cooperation and a reciprocal information flow."

John Thillmann
MUA, Virginia Tech

As Chief of Environmental and Technical Services for Fairfax County, Virginia, John Thillmann handles a wide range of environmental problems. He recommends environmental policy and impact assessments for Federal, county, and state projects, and looks out for citizen concerns about the environment, including noise. "We focus a lot of attention on noise problems, because the people of Fairfax county consider it one of the most important issues affecting their day to day living," Thillman says. Highway and airport noise are the biggest concerns of residents, and Thillmann represents their interests to congressional, state, and local officials. Thillman has earned several degrees, including a Masters in Business Management from Central Michigan University and a Masters in Urban Affairs, with concentration in Environmental Affairs, from Virginia Tech.

Debbie Yamamoto
BA, Public Administration
Seattle University

Debbie Yamamoto came into the noise control field, "because I was environmentally conscious and found my opportunity in noise control." Debbie is the EPA Regional Noise Representative for Alaska, Idaho, Oregon, and Washington. She's responsible for handling all kinds of noise problems, ranging from determining how much noise a certain vehicle or machine makes to helping a community get a noise control program started. A recent project for Debbie has been helping Spokane conduct an attitude survey, finding out what people think about noise. "Noise control is still a very small field. It hasn't gotten much recognition yet and there are opportunities for specialists and generalists," she says. Debbie believes there is a particular need for experts in the more complex area of industrial noise control. Debbie earned a B.A. in Public Administration from Seattle University in 1973.

Kathy Summerlee
JD, Georgetown
University Law Center

"I'm involved in a much broader range of areas than I would have ever expected after just completing law school," says Kathy Summerlee, an Attorney-Advisor in the Noise Enforcement Division of the EPA. "Noise control is a very new and growing field and there is a lot of opportunity for creative thinking on directions both the Federal and local governments should take in implementing and enforcing noise control.

"Noise is where the future is," according to Kathy. She finds the work "challenging" and believes "my talents are being called upon often because there aren't that many people who work in noise control." Kathy earned her JD from Georgetown University Law Center where she was on the Law Review, and her A.B. from Duke University where she majored in economics and English.

Jesse Borthwick
MA, Engineering and
Acoustics, Penn State

"The benefits from your efforts are more readily apparent in noise control than they are in any other area of environmental protection," says Jesse Borthwick, Executive Director of the National Association of Noise Control Officials. The non-profit association works to foster inter-program communication and cooperation between state and local noise control programs. Jesse became interested in noise control while working as an Environmental Specialist in the Florida Department of Transportation. "It's been a challenge ever since I started working on noise," he says.

Jesse has a varied background. He received an A.A. in General Science, a B.S. in Marine Biology, a Masters in Environmental Pollution Control and a Masters in Engineering and Acoustics.

How To Apply

If you are interested in learning of specific noise control job opportunities in Federal, state, or local government send a resume with salary requirements or a government 171 form to:

Careers
Office of Noise Abatement and Control (ANR-471)
U.S. Environmental Protection Agency
Washington, D.C. 20460

The EPA Noise Office will function as an informal job clearinghouse, identifying opportunities in local and state offices as well as in EPA Regional and Headquarters offices. When a position becomes available, EPA will notify interested and qualified applicants and explain how to apply formally for the job.

If you would like to learn more about noise control and the career opportunities available, feel free to write us. We'd be glad to talk with you about what we do, and how your skills and capabilities could be challenged in a meaningful environmental career.