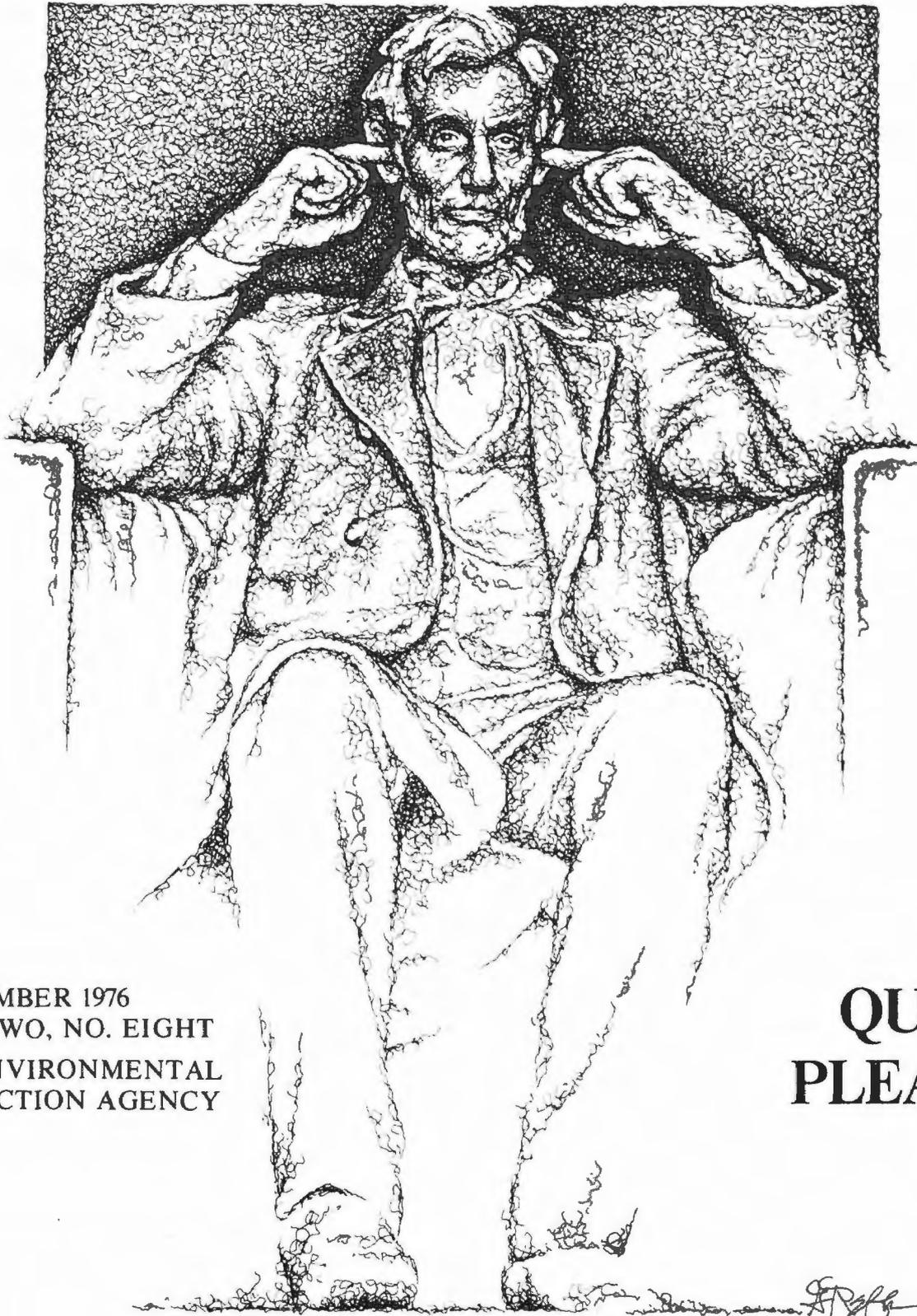


# EPA JOURNAL



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U.S. ENVIRONMENTAL  
PROTECTION AGENCY

**QUIET,  
PLEASE!**

*FR*

# THE QUEST FOR PEACE AND QUIET



*"One winter night I stood and listened beneath the stars. It was cold, perhaps 20 below, and I was on a lake deep in the wilds. The stars were close that night, so close they almost blazed, and the Milky Way was a brilliant luminous splash across the heavens. An owl hooted somberly in the timber of the dark shores, a sound that accentuated the quiet on the open lake. Here again was the silence, and I thought how rare it is to know it, how increasingly difficult to ever achieve real quiet and the peace that comes with it, how true the statement 'tranquility is beyond price.' More and more do we realize that quiet is important to our happiness. In our cities, the constant beat of strange and foreign wave lengths on our primal senses beats us into neuroticism, changes us from creatures who once knew the silences to fretful, uncertain beings immersed in a cacophony of noise which destroys sanity and equilibrium."*

—Sigurd F. Olson, "The Singing Wilderness."

This need for quiet or at least less noise is the main subject EPA Journal examines in this issue.

We begin with an over-all view of the Agency's noise control program in a question and answer session with Charles L. Elkins, Deputy Assistant Administrator for Noise Control Programs.

Then we take a look at one of the most irritating sound problems in modern society—airport noise. Another article examines the little recognized problem of noise in the home.

As an example of some of the actions EPA is taking to deal with these matters, the Agency's new laboratory in Sandusky, Ohio, for testing truck noise is described in an article.

Other subjects covered in this issue include:

A photo essay on a New Jersey waterfront ship graveyard where a huge new park is planned.

A review of a report by the Council on Environmental Quality on the effectiveness of the environmental impact statement process.

An article on the progress being made by the U.S. Navy in curbing pollution from its ships.

Another in our continuing series of regional reports, with the spotlight this time on the Region VIII Office in Denver.

An article which should be of interest to everyone who changes the oil in his car and is faced with the question: What do you do with the dirty oil?

# EPA JOURNAL



U.S.  
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PROTECTION  
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Russell E. Train, Administrator

Patricia L. Cahn, Director of Public  
Affairs

Charles D. Pierce, Editor

Staff: Van Trumbull, Ruth Hussey,  
David Cohen

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**COVER:**

Illustration by George Rebh

**PHOTO CREDITS**

INSIDE COVER Larry Higgins  
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# CONTROLLING NOISE POLLUTION

An interview with Charles L. Elkins,  
Deputy Assistant Administrator for Noise Control Programs

**Q:** *What is noise and how is it distinguished from sound?*

**A:** Noise is usually defined as unwanted sound. In some cases, of course, one person's noise is another person's music, but we find that there is a general public consensus about what constitutes major sources of noise requiring Federal regulation.

**Q:** *In the Noise Control Act of 1972, Congress, in effect, instructed EPA to determine the level of environmental noise that would protect public health and welfare. Is this an attainable mission for the Agency?*

**A:** In 1974 we published the "Levels Document" which sets out, based on our current knowledge, those levels which would protect public health and welfare with an adequate margin of safety. As new information is developed through research and studies, that document will be updated.

The question of whether this country could ever attain safe noise levels for all activities is uncertain at this time, although I would certainly suggest that it would be a long time from now before that would happen. The cost and the technical feasibility of achieving various levels of abatement are being determined. In setting the standards under the Noise Control Act we have tried to achieve the greatest protection of public health and welfare taking cost and technical feasibility into account.

**Q:** *Why wasn't regulation of noise left to State and local authorities? Why did the Federal government have to get into it?*

**A:** The Noise Control Act does emphasize that the primary responsibility for noise control rests with State and local authorities. On the other hand, some sources of noise are products which are manufactured in a few cities and sold all over the country, such as automobiles, trucks, and aircraft. For this reason Congress determined that noise abatement at the source would be achieved most efficiently by national uniform standards for the major sources of noise.

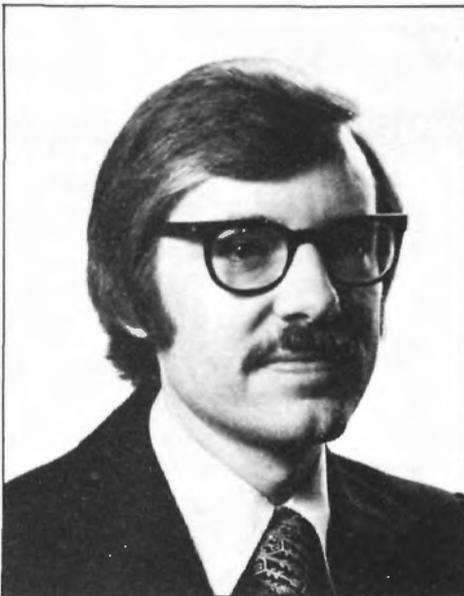
**Q:** *What is EPA's role vis-a-vis the*

*States and municipalities generally in the control of noise?*

**A:** The Noise Control Act differs from most of the acts which EPA administers. We do not have a grant program to initiate and support State and local control programs. Our function is, instead, to provide technical assistance, leaving to the State and local governments the funding of these programs.

Our job in the past has been to develop model codes, ordinances and materials which they can use to run their programs. Region VIII is developing a workbook which will take local communities, step by step, through the development of a noise control program.

I would be less than honest, however, not to indicate that to date our program of technical assistance to States and localities has been minimal, because of resource constraints and the necessity under the Noise Control Act to proceed expeditiously with the setting of national source standards. I would hope that we would be able to give this effort much more emphasis in the future and our office has developed proposals along this line which the Agency is now considering.



Charles L. Elkins

**Q:** *Why was primary responsibility for regulating airplane noise given to the Federal Aviation Administration?*

**A:** This was a matter of very hot debate during the passage of the 1972 Noise Control Act. The legislative history clearly indicates that the Congress was generally very disturbed with the lack of progress in noise abatement in the aviation field, and they felt that the message had to be gotten to the FAA that more and faster action was needed, so they thought very seriously of giving the entire authority to EPA.

However, Congress finally decided instead to keep the regulatory authority within the FAA since it is imperative that final decisions in the aviation area be based on a review of all the factors, including protection of health and welfare, economic feasibility and safety.

Safety is one particular factor in which FAA clearly has the expertise and there is no need for EPA to try to develop a staff with these specialized skills. However, Congress did provide us the authority to propose regulations to the FAA. These are published in the Federal Register as Notices of Proposed Rulemaking, leaving to the FAA the final decision of whether or not to promulgate a final rule. If the FAA does not promulgate our proposed rule, they must publish explanations of why they did not accept the EPA recommendations.

**Q:** *Wasn't EPA's concern about noise from the Concorde exaggerated?*

**A:** No. I believe our position was just not fully understood.

We agreed that one Concorde flight a day or two flights a day would be hardly noticed at Dulles Airport and even at JFK.

What we argued was that the initial flights constituted a "foot in the door" for the 25 flights a day into JFK and five flights a day into Dulles which the British and French have projected.

This number of flights would provide a serious noise impact at JFK because the Concorde is clearly noisier than the present generation of aircraft which we and the FAA believe are too noisy and



George Rebb

should be phased out or retrofitted with noise control devices. This number of flights would also be a problem at Dulles in the future if the population around the airport continues to grow as it has in the past.

The "foot in the door" argument is especially relevant in this case because of our international treaty obligations which prohibit us from discriminating among airlines. If we give approval to the French and British airlines, there will be really no basis on which the Secretary of Transportation can deny equal treatment to Iran Airlines, which has already indicated they will purchase Concorde or to, for that matter, PanAm or TWA.

Mr. Coleman's response to that argument is that he will issue an Environmental Impact Statement at the time that any further applications are made. We of course believe that an EIS

should be written in such a case, but we feel the time to deal with the problem is at the start and not after "the horse is already out of the barn."

**Q:** *Is it economically practical and feasible at this time to appreciably reduce aircraft and airport noise?*

**A:** It definitely is. In fact, the history of aviation noise is quite remarkable. It is our observation that very little has been done to abate aviation noise, despite all the furor about it over the last 20 years.

As we see it, there are so many parties responsible for part of the problem that they have never been forced to act together to abate the noise. The airlines, the aircraft manufacturers, the airport proprietors, land use planners—each of these groups points a finger at the others, and says, "I cannot solve the whole problem. When you get the others to do something, come back and talk to me."

Secondly, the problem has been construed as being so technically difficult that citizens have had a hard time cutting through the technical jargon to see that, in fact, things are possible. Many of the required actions do not cost a great deal of money and we have now developed a noise abatement planning methodology which will help airport proprietors and communities assess the relative effectiveness of a number of available abatement actions which we have identified.

**Q:** *It has been recommended that the airlines spend \$1 billion to help muffle jet engine noise. What is your reaction to this proposal?*

**A:** The FAA's proposal is that \$1 billion be spent to retrofit their aircraft. FAA studies have shown that this amount of money would be very well spent.

*Continued on page 4*

# "Very little has been done to abate aviation noise, despite all the furor about it..."

Continued from page 3

For instance the 707's and the DC-8's now flying are ten to 12 decibels noisier than the 1969 standard for new aircraft, which itself is way out of date. These aircraft are contributing a great deal to the noise around our airports, and our airport proprietors today are being sued for hundreds of millions of dollars because of noise, and these suits represent only the tip of the iceberg. The \$1 billion, in our opinion, would be well spent because it will solve a substantial portion of this problem.

**Q:** *Is a major reduction in aviation noise dependent upon the development of the new, superquiet jets?*

**A:** Definitely not. We believe the FAA can promulgate standards today to require the production of quieter aircraft with technology which is already known.

Secondly, there are steps which the airport proprietors can take to reduce noise very effectively. Let me give you an example:

The Oakland Airport is one of the pilot projects for our airport planning program. We went out to speak to them about their doing a plan and looking at various noise abatement options.

We suggested to them the very simple idea of moving their noisy aircraft from the north runway to their south runway, so that the noisiest aircraft would be taking off across the bay instead of over a residential neighborhood.

As simple as that may sound, the airport proprietor had not considered doing that in the past, partly, I believe, because the FAA had told him that he did not have authority to do anything about noise. Without even waiting for the development of an airport plan, the Oakland Airport authority held a press conference, and announced they were moving all their noisy traffic to the south runway and thereby substantially abated the noise over the residential area. We feel that this experience would be duplicated all over the country if airports were to develop the systematic abatement plans recommended by EPA.

**Q:** *Can you comment on the magnitude of the hazard that noise poses to the general public? Is it true that*

*approximately 15 million people in the United States are exposed to noise levels in the workplace which could result in hearing loss for example?*

**A:** Yes, hearing loss resulting from exposure to noise is a very widespread problem; it is an important basis for claims under Workmen's Compensation in this country, and we find that people are not as aware of this problem as you might expect. Hearing loss has one similarity to another health problem with which EPA is grappling—cancer. Both have long latency periods, which means that the adverse health effect often becomes apparent only after a long period of time. Often, by the time someone realizes that he is losing his hearing it may well be too late to do anything about it.

**Q:** *It has been said that by defining noise levels on the intensity of sound only, EPA has ignored other scientific findings about hearing loss—that the intermittency of sound and the purity of tone influence human response as well.*

**A:** These factors were considered in the levels established in the "Levels Document" and a very thorough analysis of the scientific data was done in writing that document.

Of course, we have a great deal yet to learn about intermittency, and the influence of tones, and as this information is developed we will be revising our "Levels Document" to incorporate such new data.

**Q:** *Will the passion of teenagers and other young people for hi-fi and amplified rock music, motorcycles, snowmobiles, and other gadgets with high noise potential contribute to an early onset of hearing loss?*

**A:** Yes, definitely.

Almost no meeting I speak to goes by without someone in the audience asking me to do something about discotheque music and stereo headphones. This is a very unusual kind of problem for EPA to have to deal with, and we have not determined whether and how it would be appropriate for the Federal government to intervene. However, one possibility would be providing more information to people through an educational program.

**Q:** *What appreciable progress has been made in controlling noise levels from heavy equipment?*

**A:** Specifically, we have established standards for in-use interstate motor carriers and railroads. We have also established standards for new heavy and medium trucks and portable air compressors, with standards on six additional new products, including buses and motorcycles, coming out in proposed form early next year.

The difficulty we face of course is that these standards on new products will not begin to pay off in terms of making the country quieter until the new quieter products begin to replace the older noisier products in larger numbers.

For this reason, State and local programs which control the use and operation of older and noisier products are essential.

**Q:** *How effective has new jet engine technology been in reducing noise?*

**A:** The wide-bodied jets such as the 747 are significantly quieter for their weight class than the older 707's and DC-8's. Unfortunately the economic downturn in the airline business has slowed the introduction of these quieter planes into the commercial fleet.

Remarkably, these noise reductions are accompanied by improvements in fuel efficiency for these aircraft. This is understandable since noise is, in many cases, an indication of inefficiency.

The new truck regulation which we promulgated in March of this year will save the country half a billion dollars a year because of the fuel efficiencies brought about by the use of quieter components.

**Q:** *In lowering industrial noise, which way should we go? Emphasize engineering controls or individual hearing protection, requiring workers to use earplugs?*

**A:** Well, generally, we have taken the position that one should utilize engineering changes and not depend on individual hearing protectors.

Many people do not like to wear hearing protectors because they may become uncomfortable when worn for long periods of time. In addition, it is sometimes difficult to get them to fit correctly. Depending on the job, hearing protectors may interfere with some peoples' work, because they may not be able to hear instructions as well.

The engineering changes, of course,

# "New truck regulations...will save the country half a billion dollars a year. . ."

provide for abatement independently of any actions by the workers. However, these changes are more expensive than hearing protectors, and there is obviously a desire on the part of industry to substitute individual hearing protectors for engineering controls.

Despite the drawbacks of hearing protectors, they can be used as an interim measure until engineering changes are made. There is no need to keep exposing workers to hazardous levels simply because it may take several years to get the engineering changes made.

In the long term, however, we believe that engineering changes are the most appropriate way to proceed.

**Q:** *With present and foreseeable technology, how much quieter can industrial equipment be made in the next ten years?*

**A:** We do not have a good fix on that. We do know that it is technically feasible for most industries to bring the levels of noise down to at least the 85-decibel level which we have recommended to the Department of Labor. Hearing damage will still occur to a percentage of the population even at those levels, and so we must continue to look at the feasibility of reducing these levels even further in the future.

**Q:** *The 1972 Noise Act gives EPA the authority to require manufacturers to label products as to their noise generating characteristics. Does your office plan to require such labeling?*

**A:** Yes, we do. We see this potentially as a very effective tool to enable consumers themselves to make the decision about how noisy the products they buy should be. There are many products where the noise created affects primarily the purchaser of the product, and those products seem particularly suitable for labeling.

**Q:** *How about heavy trucks? Is it possible to make a significant reduction in the amount of noise from these vehicles?*

**A:** Yes. The standards which we set in March will bring about dramatic improvement in these trucks.

The trucks being manufactured today are producing about 86 decibels and our standard calls for a reduction to 83 decibels in 1978, and to 80 decibels in 1982.

We believe that it will be possible to bring these trucks down to about 75 decibels sometime around 1985, although we have not established that lower level as yet. Should these changes in levels seem small to you, keep in mind that decibels are calculated on a logarithmic basis and three decibels represents a doubling of the actual noise energy.

**Q:** *Have these new standards been fairly well received by industry?*

**A:** We have been sued by 5 members of the truck industry concerning these standards. Only one of the companies, however, is challenging the actual levels. The rest are concerned about the testing and enforcement provisions of the regulation or about certain technical details.

**Q:** *How does EPA plan to enforce these truck standards and regulations?*

**A:** The manufacturer of these products must test a representative number of his products, and EPA has the authority to require further testing if we have reason to believe that his products are not meeting the standards. The Noise Enforcement Division has recently established a testing facility at Sandusky, Ohio, which will be a site at which we can bring these products for testing if we want to verify that the testing going on at the manufacturer's facility is accurate.

**Q:** *Will EPA eventually regulate noise from motorcycles and recreational vehicles?*

**A:** We have under way now a standard-setting process on motorcycles and we hope to have a proposal in the Federal Register sometime in the early spring of 1977.

We are considering setting standards on snowmobiles and motorboats. The snowmobile case is interesting, however, because a number of States have already established levels for snowmobiles, and the industry has reduced the noise levels of their product substantially. Whether these levels are low enough or not is a subject we are now investigating.

**Q:** *There has been some controversy about the limit for maximum noise exposure necessary to protect health and welfare in the workplace. Can you comment on this?*

**A:** We have the statutory mandate

under the Noise Control Act to review regulations of other Federal agencies and to provide them our comments and recommendations where we feel that they are not sufficiently protective of public health and welfare.

This is what we did in the case of the Occupational Safety and Health Administration standard and as a result EPA testified extensively at the OSHA public hearings. These hearings produced a great deal of new data for OSHA about the inadequacies of the 90-decibel standards. Essentially, the 85-decibel standard which we proposed would be about twice as protective of public health as the 90-decibel one. In this case, the 85-decibel standard costs more money, and economic studies are being done now to see how much more industry would have to pay.

**Q:** *I understand that all Federally-aided highway projects must provide for noise abatement measures. What are they, and what role is EPA playing in this area?*

**A:** Major highway projects do have to have environmental impact statements written and the Department of Transportation has noise criteria by which they judge whether the noise produced by a highway is acceptable or not. The major noise abatement technique used by the Department is the building of barriers along the sides of highways in order to try to keep the noise away from surrounding developments.

Of course, noise abatement is often most effectively accomplished by planning for the location of highways in areas where the noise impact will be minimal, and we hope to work closely with the Department of Transportation to improve this aspect of the noise abatement program.

**Q:** *Who are the beneficiaries of noise regulation?*

**A:** The beneficiaries come from all walks of life. They include the 15 million people exposed to levels which endanger their hearing in their job; the 13 million people exposed to similar levels outside of their occupation, such as snowmobile and motorcycle operations; the 97 million people potentially affected by traffic noise; over 30 million exposed to aviation noise and 36 million people living in areas impacted by construction, rail, and industrial noise. ■

# THE ROAR FROM ABOVE

*"For some 25 years now, communities around the major airports of this country have experienced an ever increasing exposure to noise. Day in and day out, millions of people in this country are deluged by the din of airplanes landing and taking off over their homes. Many of these people are subjected to noise levels so high that according to the best scientific evidence now available they run a very real risk of actually having their hearing affected. Opening a window to enjoy a warm, spring breeze, using the patio in comfort for a barbeque, relaxing in front of a TV set without being disturbed, or carrying on an uninterrupted conversation with a friend in the comfort of our homes; these ordinary, everyday activities which the rest of us take for granted, they cannot enjoy. We can, with some assurance, estimate the physical effects on those people of prolonged exposure to airport noise levels. There is no way we can measure the profound mental and emotional distress they must endure.*

*"The problem is compounded by the sense of utter hopelessness and helplessness that overwhelms them. They have often given up hope that they can do anything themselves to avoid this misery except to move. They doubt that any governmental agency or private group will do anything about it. When they have tried to get things done, they have experienced only a most dizzying and disheartening round of 'buck-passing.' No one seems to have the authority, or the power, or the will to give them any real help. No one seems to be in charge. At least no one will admit to it."*

—Administrator Russell E. Train in remarks to the Inter-Noise '76 Conference, Shoreham Hotel, Washington, D.C., April 5, 1976.



*The Concorde supersonic transport lands at Dulles Airport.*

Damage suits totalling hundreds of millions of dollars have been filed in courts around the country against airports because of the noise disturbances caused by airplanes.

In addition to threatening airport proprietors with huge financial burdens, the suits, along with other concerns, have nearly halted the construction of new airports and the expansion and modernization of existing airports.

Commercial air travel has been available to the public since the 1920's, and complaints about airplane noise have been around for just about as long. It was not until the postwar boom in civil aviation, though, that the problem of aircraft noise reached major proportions.

In 1959 commercial jet travel was introduced, and air transportation was never to be the same. The American public flocked to the skies in record numbers. As airports and airlines grew, the noise became louder and louder.

The growth of air travel demanded more airports and runways, meaning more of the take-offs and landings which cause noise problems. Boeing 707's have been measured at 120 decibels on take-off, roughly the equivalent of the sound heard when one stands in front of a stereo turned up to near top volume. Currently there are more than 2000 commercial jet aircraft operating in the United States, serving nearly 500 major terminals. And every day this overpowering noise assaults the ears of millions of Americans.

Why aren't airports and their noisy planes moved away from people? Well, that has been tried many times. For instance, the Seattle/Tacoma Airport was built several years ago in a remote, undeveloped site. But today, new housing development in the vicinity of the airport has attracted many who apparently did not understand initially the magnitude of the noise at this location.

Problems similar to Seattle's have occurred at major airports around the Nation because for many people, and especially for land speculators and developers, modern airports are exciting and attractive places.

## Land Values

Land values usually increase rapidly near an airport, and the transportation links with the urban area the airport serves make it an inviting location for housing, and other kinds of development.

There are also many cases where

*Flight paths at many airports are close to residential areas.*



older airports have long since been surrounded by urban growth. Airports like Chicago's Midway, Washington's National, and La Guardia in New York were designed to handle the noise and air traffic of an earlier day.

Each airport's noise problem is unique. And every airport's noise impact will depend on a multiplicity of factors other than just land-use: the airport's size and location, flight operations (international and cargo flights may cause nighttime noise problems,) operating hours, types of aircraft, airport ownership and government involvement.

The solution may be as complex as the problem itself. The parties who have a stake in any aviation noise issue are as varied as the characters in a play. They include the Federal and State governments, airport proprietors, homeowners near the airport, airline

pilots, aircraft manufacturers, local planning and zoning bodies, city councils of communities which both benefit from the airport and suffer because of it, air carriers, owners of private aircraft, and land developers. Because of this diversity and the ensuing legal and jurisdictional conflicts, there is no single private or governmental entity with sufficient legal clout or technical expertise to remedy the matter alone. Historically, each faction has blamed the other, or has claimed an inability to act alone.

Since air transportation comes under the heading of interstate commerce, most regulatory action affecting the industry arises at the Federal level. Congress has vested this authority in the Department of Transportation, specifically in the Federal Aviation Administration (FAA). Recognizing the growing problem of aviation noise, the FAA set national noise standards in 1969 for new type aircraft designs. A new generation of quieter, more efficient commercial jet aircraft has evolved from these standards. Not only are the L-1011, DC-10, and Boeing 747 quieter than the jets of the sixties, but they carry greater payloads as well.

## Noise Act

To further protect the environment from the adverse effects of noise pollution, Congress passed the Noise Control Act of 1972 which requires EPA to study the aviation noise problem and propose appropriate regulations to the FAA. Using this authority, EPA has proposed a number of regulations and will soon propose an airport noise abatement and planning process. The most promising aspects of this process are participation of the affected parties in the development of any noise abatement plan, and, for the first time, a methodology for comparing the benefits of alternative abatement actions that can be comprehended and effectively used by planners and the general public.

Surprisingly, there are many reasonable cost measures which can be taken by airport proprietors, and some local governments to effectively reduce the impact of aviation noise. Some airports such as Washington's National Airport have imposed curfews which ban flights during certain night hours. The airport in Minneapolis/St. Paul has substantially reduced its noise complaints through such steps as the use of different take off and landing procedures. ■

# HOME NOISES

Due to an often unrecognized form of pollution, more and more Americans are being deprived of a time-honored amenity—the peace and quiet of their homes.

This pollutant is the drone of kitchen appliances, the racket of an over-amplified stereo, the sound of street noise through poorly-constructed walls and windows and the roar of overhead aircraft.

Noise in the home is reaching levels that can cause more than irritation and emotional disquiet. In extreme cases, it can begin to rob us of our precious ability to hear the sounds of the world.

Home-grown noise can be grouped under two general headings—that which is emitted from appliances and that which comes from flimsy building materials and home-siting problems. With regard to the first category, a 1972 EPA report to Congress specifically examined noise levels produced by a number of household appliances. According to the study, those appliances which fall into the below-60-decibel range, a relatively low level of noise, include refrigerators, floor fans and clothes dryers. Still, these modern conveniences produce enough noise to interfere with both communication and sleep.

Noise-producers registering in the 65–75 decibel range include sewing machines, dishwashers, and food mixers. Since exposure time to these sources tends to be brief and infrequent, the risk of hearing damage is negligible. But the level of the noise produced can cause annoyance.



*This youth is not deaf; he's left the power mower running.*

Decibel levels between 75 and 85 were recorded for such appliances as vacuum cleaners, electric razors and food grinders. The risk of hearing damage associated with the use of these noise sources is small but increases with continuous or cumulative use.

The last class of noisy household items involved is those with a level of above 85 decibels. Some scientific opinion has it that continuous exposure for eight hours per day over an extended period of time to noise levels of about 85 decibels can cause permanent hearing loss, although the degree of such damage will vary among individuals. The appliances which fall into this group are woodwork and shop tools, gasoline-powered lawn mowers and hedgers, snowmobiles, chainsaws, and blaring stereo equipment.

Under the Noise Control Act of 1972, EPA has the authority to require

labels on products that may generate noise capable of adversely affecting public health or welfare. By 1977 EPA will be implementing this program to ensure that consumers are provided with such information. The new policy should also encourage product manufacturers to produce quieter gadgets and appliances.

There is much that homeowners themselves can presently do to help. For instance, by placing foam pads under blenders and mixers, the noise level of the machines can be appreciably reduced. Power mowers should be checked to see if they are equipped with good mufflers and sharp blades. They should also be run at low speeds. Vibration mounts and proper insulation should be used when installing dishwashers. Noise can also be reduced by keeping washing machines in an enclosed place.

## Noise Around the Home

Noise Source	Sound Level for Operator of Equipment (in decibels)
Refrigerator	40
Floor Fan	51
Clothes Dryer	55
Washing Machine	60
Dishwasher	64
Vacuum Cleaner	67
Electric Shaver	75
Food Disposal	76
Electric Lawn Edger	81
Home Shop Tools	85
Gasoline Power Mower	87 to 92
Gasoline Riding Mower	90 to 95
Chain Saw	110
Snowmobile	112
Stereo	Up to 136

Such efforts to quiet appliances are essential, but they are not the total answer. Household noise created by the construction and siting of the home itself is becoming an increasing national problem. New types of thinner building materials tend to transmit noise vibration and in some cases may even amplify them. Houses built in airport flight paths or along superhighways are also subjected to high levels of unwanted sound, which, in addition to creating a health hazard, may vibrate walls and pipes until they crack.

EPA is currently preparing a model building code for various types of structures. The code, which can be adopted by communities, spells out extensive acoustical requirements. Cities and towns will be able to regulate construction in a comprehensive manner to produce quieter local environments in the future.

Moreover, the U.S. Department of Housing and Urban Development has developed "Noise Assessment Guidelines" to help evaluate the availability of their funds for aiding community planning. Likewise, the Veterans Administration requires information regarding the exposure of V.A.-financed houses to noise from nearby airports. The V.A. also has directed its offices to take noise considerations into account regarding development of property acceptable for G.I. loans.

Through zoning, land use planning, and building regulations, many control agencies are working to abate noise pollution created by poor construction and siting problems. The homeowners' opportunity for battling noise can be more than just insistence on quieter appliances. Noise-absorbing materials should be used wherever possible. Thick carpeting, heavy drapes, padded furniture, and acoustical ceiling tile are all means to this end. When choosing a new house or apartment, one should look for sturdy walls, non-hollow doors, wall-to-wall carpeting, and insulated heating and air conditioning ducts. Time should be invested in learning the noise sources in any neighborhood where one might be planning to reside.

A current EPA public service announcement for television includes a view of the Washington Monument, over which a solemn voice intones, "Two centuries of freedom of speech." Interrupted by the roar of jet aircraft, the narrator is forced to conclude in a near scream, "So don't we have a legal right to hear one another?" ■

# TESTING, TESTING



*Noise meter measures truck sound*

A new EPA facility for testing the noise made by vehicles and machinery will open this month at Sandusky, Ohio.

Called the Noise Enforcement Facility, it consists of a building and test pads completed last month and two van-mounted mobile testing units. William Heglund is director of the 11-person staff of engineers, technicians, and supporting personnel. The facility's capital cost is about \$750,000. It reports to Dr. Norman D. Shutler, Deputy Assistant Administrator for Mobile Source and Noise Enforcement.

The Sandusky center serves as an EPA checkpoint for assuring that newly manufactured medium- and heavy-duty trucks and portable air compressors conform to the noise limits promulgated last March.

Later it will also serve to back up the enforcement of noise regulations for other types of noisy vehicles and machines—motorcycles, buses, bulldozers, loaders, compactors, and truck-mounted refrigeration units—as rules are adopted for them.

Under the Noise Abatement Act,

EPA will require manufacturers to test their products' noise outputs and see that they conform to regulations, Dr. Shutler said. The Sandusky facility is designed to assure by periodic checkups that the manufacturers' tests are effective. This will be done in a variety of ways: by requiring manufacturers to ship sample products to Sandusky for testing, by conducting EPA tests at the manufacturer's plant using the mobile testing units, and by simply monitoring a manufacturer's testing through EPA personnel at the manufacturer's test facility.

If a manufacturer cannot afford his own noise testing and no private acoustical test laboratory is available to him, he may, for a fee, use the Sandusky facility for his production testing. The facility will also be available for the training of Regional, State, and local noise enforcement personnel. The site in northwestern Ohio was chosen because of its proximity to truck and machinery makers, its "reasonable weather conditions" for outdoor testing, and its low ambient noise levels. ■

# LIBERTY PARK PLANNED FOR JERSEY SHORELINE



Statue of Liberty seen through weather-worn piers of the New Jersey waterfront.

Work has started on a massive project to remove the derelict vessels and rotting piers along the Jersey City, N.J., waterfront across New York Bay from the Statue of Liberty so the area can be developed as Liberty Park. Plans for this program to turn a marine graveyard into a superb park attracting millions of people annually have been developed by the State of New Jersey. The State, with the assistance of the Federal Government, hopes to provide exhibition halls, museums, theaters, and restaurants as well as several different types of park facilities. An Environmental Park, where visitors can study tidal marshes, is included in the plans. Also proposed are pedestrian passageways to both Liberty and Ellis Islands.



Old tug boats and scows mouldering in Black Tom Channel.



In the foreground are several hundred acres of a Jersey City, N.J., wasteland which has been used as a dumping ground for derelict boats. The Statue of Liberty is at the right and the towers of Manhattan loom at left.

# SOLVING AN OILY DILEMMA

With more and more car owners changing their own engine oil for economy reasons, a valuable and non-renewable energy resource is being wasted through the indiscriminate disposal of the used crankcase oil.

Although there is no accurate data on how much used crankcase oil is poured down the drain, the toilet, the storm sewer or out into the backyard, an EPA official estimated that approximately 100 million gallons of waste oil are disposed of annually by car owners. Larry McEwen, an analyst in the Resource Recovery Division of EPA's Office of Solid Waste Management Programs, said this oil contains a number of contaminants among which lead is the most prevalent and potentially harmful. Automobile oil drainings contain approximately one percent lead particulates which originate from the lead additives in gasoline.

The problem of how to control the disposal of waste lubricating oil is not a new one. In the past, service stations gave large quantities of the used oil they drained from cars to collectors who either sold it to various industries for re-use or dumped it anywhere they could. Today, however, with the rise of the do-it-yourself oil changer the source of the control problem has shifted.

Now in addition to the service station owner trying to decide how to get rid of large quantities of used oil, the car owner, standing in his driveway holding a gallon tub of dirty crankcase oil, must also decide what to do with it.

Where should you dump your used oil? According to Mr. McEwen, "ideally, our solution is to recommend to the car owner that he take his waste crankcase oil to an approved collection site or designated service station. From there the waste oil could be picked up in large quantities and either re-refined, used as a dust suppressant or in asphalt production, or burned by utilities or institutions which use oil as fuel and are equipped with controls capable of keeping lead particulates out of the atmosphere.

## Collection

"We are currently attempting to get together with the service station associations and the Federal Energy Administration to designate suitable collection



points for used oil. Right now, our best recommendation is for citizens to encourage their local governments to make such collection sites available.

"For example, the Continental Oil Company has been experimenting in the Midwest with a system to collect used oil in these service station holding tanks for recycling. We enthusiastically support this type of action."

The Federal Energy Administration has followed up this initiative and is developing a national waste oil recovery program. FEA's current efforts include a model law for State legislatures outlining an approach to used oil recycling as well as a Citizens' Group Community Kit with instructions to the local community on how to organize and conduct a local oil recycling program.

Barring any success at these efforts in the local community, Mr. McEwen says that the least hazardous disposal around the home is probably to pour the used oil into a container and place it in a garbage can. "Although this option is wasteful of the resource, the possibility of groundwater contamination is hopefully small in a municipal landfill. The storm sewer is the worst option because from there the oil might run directly into waterways where it can be toxic to water organisms. To pour it down your drain or toilet can cause problems with waste treatment," he said.

The question of how to dispose of

used crankcase oil is a complex one and there are currently several approaches by which EPA is attacking it. First of all, since lead is the major toxic material involved, if it could be removed from gasoline, and therefore from the lubricating oil which collects it, a large part of the health problem would be eliminated. EPA regulations to reduce the lead content of gasoline have been enacted and are now in the process of re-promulgation after being upheld in the courts following a challenge by the gasoline additive manufacturers. In addition, by requiring the availability of lead-free gasoline for cars equipped with catalytic converters, EPA has further reduced the amount of lead in waste oil.

## Market

However, regardless of these actions the problem of disposing of used oil will still remain. In this area the major thrust of EPA's efforts has been toward stimulating the reestablishment of an active market for used oil in the refining industry.

It is hoped an increased demand for waste oil by re-refiners will stimulate natural market forces enough to enable citizens to return used oil to designated collection points. These forces should help reduce the dumping of oil in the larger metropolitan areas where a market exists. However, the economical recycling of used oil in the more remote areas remains a problem. ■

# NAVY CLEANS UP

The largest single organization to be affected by ship sewage regulations recently promulgated by EPA is the United States Navy.

The Navy has had a program underway for several years to convert its ships so that wastes can be properly controlled. The new rules ban the discharge of untreated or inadequately treated sewage in coastal and inland waters or require on-board treatment and disinfection before discharge. Approximately 400 ships of the Fleet and about 200 smaller ships and service craft have been or are being converted.

To help stimulate the Navy's conversion program, Secretary of the Navy J. William Middenorf II offers annual Environmental Protection Awards. At a recent presentation, Mr. Middenorf said: "I wanted to personally present the awards to this year's winners in my office to demonstrate my interest and continued support of this important program to enhance and protect our environment."

Total cost of the waste control conversions through fiscal 1975 has been about \$106 million. The cost of completing the conversions is expected to be \$205 million. The Navy is confident it will meet the 1981 deadline.

Shipboard toilets constitute only part of the Navy's environmental program. Pier sewer lines must be installed at the Navy's shore bases to handle the sewage pumped from ships' holding tanks. A total of \$77 million has already been provided for the necessary pier sewers. An additional \$28 million is recommended to complete the pier equipment.

Extensive ship modifications and shore facilities are also needed to properly handle waste oil and oily bilgewater that used to be routinely pumped overboard. The Navy has been working on these shipboard pollution abatement measures since October, 1970, when the Chief of Naval Operations established an Environmental Protection Division to direct and coordinate the work.

The Navy's total environmental program now covers water pollution, air pollution, noise abatement, and solid waste management. The total cost through 1981 is estimated at \$1.7 billion.

From the traditional ship designer's



*This destroyer, the USS Spruance, is one of 30 ships that are being fitted with collection and incineration systems for sewage.*

point of view, prior to national pollution standards, there was no requirement for sewage holding tanks or treatment devices. But design requirements have changed, and space is now being found in existing ships and designed into new construction.

All large ships of the Fleet will have holding tanks installed and pump their sewage to shore-based treatment systems when they come to port. As of mid-1976, 122 ships and 53 submarines should be equipped with holding and pump-out systems, with 205 ships and 64 submarines remaining to be so equipped. The work is being done in conjunction with regularly scheduled ship overhaul periods which occur about every four years.

The Naval Station in Mayport, Florida, has complete pier sewer line installations. Comparable installations at San Diego, Calif., and Norfolk, Va., are to be completed soon. All Navy-owned ports will be equipped with pier sewer and waste handling facilities by 1980 or 1981. In most cases sewage treatment will be done by a nearby municipal plant.

Many small ships, gunboats, minesweepers, and small service craft are to be fitted with marine sanitation devices.

These will be systems which either incinerate the sewage to a sterile ash or evaporate it to a sterile residue. Very small craft may have airplane-type toilets installed.

Navy ships on the high seas, beyond territorial waters, will continue to pump sewage overboard as they have in the past. There are advantages to this, marine scientists have pointed out: "The sea requires basic plant nutrients, and residues from man, shrimp, fish, or whales constitute such fertilizer; or even a direct source of food."

Although the Navy is moving steadily to equip its ships and ports with better sewage handling systems, much remains to be done by others, especially in providing shore pump-out facilities in commercial and foreign ports where Navy ships may call.

The Intergovernmental Maritime Consultative Organization, of which the United States is a member, has proposed regulations that are very similar to the measures now being taken by the U.S. Navy, although the United States and most other members have not yet ratified them.

In summary, a major effort is being made to control discharge of human wastes from naval vessels. ■



### time saving

The Connecticut Department of Environmental Protection and Region I have entered into a coordination agreement for the processing of applications for Federal funding of municipal wastewater treatment facilities. The agreement is expected to reduce processing time and to accelerate the flow of funds for Connecticut's sewage treatment construction program.

### treatment award

Region I has selected a water pollution control facility in Sturbridge, Mass., as the recipient of its "Wastewater Treatment Plant Award." Operators at this secondary treatment plant have achieved outstanding success in the removal of pollutants. The award is designed to recognize the important role properly operated and maintained treatment plants are playing in the effort to eliminate water pollution in New England.



### dumping deadline

Sewage sludge dumping in the Atlantic Ocean off New York and New Jersey must end by December, 1981, under the terms of dumping permits recently issued by Region II Administrator Gerald M. Hansler.

Other disposal methods can be put into practice by that date, Mr. Hansler said, and the new interim permits require the applicants to develop specific schedules for changing over to meet the deadline. Among the methods that can be used, he

said, are pyrolysis (heat treatment) and composting (mixing the sludge with organic materials and allowing it to decompose into a harmless soil improver.) The permits cover New York City, Yonkers, four municipalities in Nassau County, Long Island, and six major sewage authorities and 35 smaller municipalities in New Jersey. Dumping permits covering 93 New Jersey communities were denied, because, Mr. Hansler said, alternate disposal facilities are now available or the applicant failed to provide information to justify ocean dumping.

### nuclear study

EPA has announced funding of the second phase of a four-year \$425,000 in-depth study of the low level nuclear waste disposal site at West Valley, New York. Leakages have been detected at the site, which is now closed. The goal of the over-all study is twofold. In addition to assisting New York State in determining the health implications of the West Valley burial site both as it now exists and for the future, EPA hopes to use information gathered by this study to develop environmentally acceptable criteria and standards for future burial sites.



### dumping slashed

Region III has issued a new one-year Interim Ocean Dumping Permit to the City of Philadelphia requiring a substantial reduction in the amount of sewage sludge to be dumped during the next year. The permit reduces the amount of sludge the city can dispose of in the ocean from 141 million pounds to 116 million pounds per year. Further reductions are required in succeeding years until 1981 when all dumping is to end. The city is also being required to meet a rigorous time schedule for developing alternate means of sludge disposal.

### pesticide fines

Fines totaling over \$16,000 were recently collected from five pesticide manufacturing firms for violating the Federal Insecticide, Fungicide and Rodenticide Act. The companies are: N. Jonas Co., Inc., Philadelphia;

Alcatraz Co., Inc., Richmond, Va.; Emge Aviation Marine Products, Inc., Langhorne, Penn.; Lincoln Industrial Chemical Co., Reading, Penn., and the Laco Corp., Baltimore, Md.



### air plans

Six of the eight States in Region IV have been asked by the Regional Office to revise portions of their air pollution control plans to assure the attainment and maintenance of national air quality standards. The States were asked to develop specific additional control measures. Metropolitan areas which will be affected by these changes are: Birmingham, Ala.; Atlanta, Ga.; Louisville, Ky.; Charlotte, N.C.; Charleston, S.C.; and Nashville, Tenn.

### lead content

The lead content of gasoline supplies in the capitals of Region IV's eight States is now being tested. Regional Administrator Jack Ravan said that technicians will collect and analyze nearly 1,000 samples of low-lead gasoline to insure that lead content does not exceed Federally established limits. On Oct. 1, the Regional Office will resume enforcement of its previously promulgated regulations for reducing lead in gasoline as a public health protection measure. This regulation, issued in 1973 but tied up in court challenges until recently, limits the average amount of lead in gasoline to a maximum 1.4 grams per gallon in 1976. The level will be gradually dropped in succeeding years until a low of .5 grams is reached by January 1, 1979.



### steel plea denied

A motion by U.S. Steel asking for postponement of the effective date of an EPA permit requiring the company to reduce chemical discharges from its Gary, Ind., plant by July 1, 1977, has been denied. The permit, issued June

25 under the 1972 Amendments to the Federal Water Pollution Control Act, calls for U.S. Steel to cut discharges of ammonia, cyanide, and phenols to levels necessary for the improvement and protection of water quality. The primary sources of these pollutants are the blast furnaces and the coke plant. The Gary Works discharges about 750 million gallons of polluted water each day to the Grand Calumet River and Lake Michigan. Regional Administrator George Alexander said the cleanup order was the result of a long administrative proceeding which began in September, 1974. Efforts to require U.S. Steel to control its water pollution at the Gary Works go back to enforcement conferences held in the late 1960's.



### deepwater ports

Regional officials have been reviewing Coast Guard draft environmental impact statements on the requests for licenses for two deepwater ports, one off the shore of Texas and the other in waters off the Louisiana coast. EPA is expected to make a recommendation soon to the Secretary of Transportation on whether the licenses should be granted and, if so, under what conditions. The questions being considered by EPA are whether the proposed deepwater ports will comply with the requirements of the Federal Water Pollution Control Act, the Clean Air Act, the Marine Protection, Research and Sanctuaries Act and other major environmental laws. The proposed ports would be used to receive large imports of crude oil from supertankers. The Texas Seadock port would be located 26 miles south of Freeport, Tex., in about 100 feet of water and would be connected by pipelines to a shoreside storage facility. Louisiana's Loop deepwater terminal would be located approximately 18 miles off the coast in international waters, from 105 to 115 feet deep. Despite conservation efforts and search for alternate fuels, the United States' dependency on foreign oil is expected to increase substantially by 1980, thus requiring improved transportation and distribution systems to handle the mounting volume of imported oil.



### quiet in sioux city

A noise control ordinance adopted by Sioux City, Iowa, approximately one year ago has proved effective, city officials report. Following consultation with representatives of Englewood, Colo., Sioux City adopted the first local noise abatement regulation in Iowa. After the ordinance was adopted, the police department began an educational program which included talks to civic groups, newspaper articles and radio and TV appearances. The department also conducted a one-week course to train its officers in the use of sound metering equipment. Three District Court judges were given demonstrations of how the sound metering equipment worked. Before the use of scientific equipment, many of the officers' noise offense citations were thrown out of court because judges complained that the actions were not based upon concrete regulation. Recently all persons arrested for noise violations have paid fines rather than go to court and the number of violations has dropped drastically. Education has been the key factor in the decrease, Sioux City officials report. Police officials anticipate passage of a statewide noise pollution law in Iowa.



### steel company sued

CFI Steel Corporation of Pueblo, Colo., has been charged in U.S. District Court in Denver with violation of the Federal Clean Air Act. The suit alleges the corporation's basic oxygen furnace and coke plants have violated Federal particulate emission regulations since late 1974. The suit notes that Regional Administrator John Green issued abatement orders to the company in 1974. Company officials have said that their firm is engaged in an air-quality control program. The U.S. Attorney's office has asked the

Federal court to enjoin CFI from violating or refusing to comply with the Clean Air Act and to require the corporation to adhere to a schedule for achieving compliance with emission regulations or to "cease all operations not in compliance."



### citizen forums

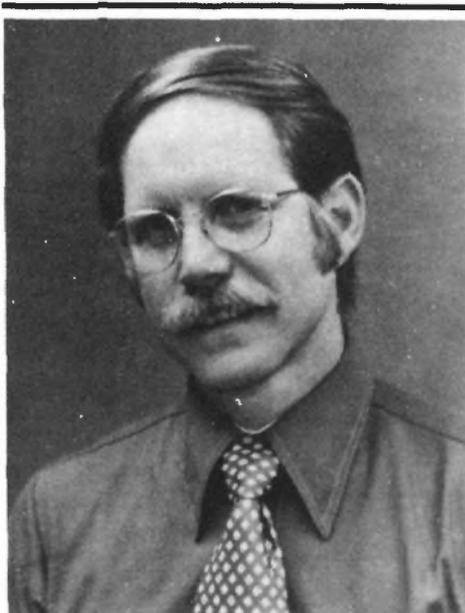
Region IX has contracted with the California League of Women Voters to hold Citizen Forums on varying environmental topics throughout the State. The forums which begin this month will deal with local issues involving EPA and other Federal, State or local officials. Proposed topics include such issues as offshore oil and its onshore impacts, preservation of agricultural land, air pollution and transportation and long term effects of ground water pumping. The Region hopes these forums will help EPA and other agencies understand what citizens think are the most important issues and will help citizens understand what the agencies can and can't do about these problems.



### halt ordered

Regional Administrator Donald P. Dubois has ordered the City of Twin Falls, Idaho, to stop discharging municipal and industrial sewage into Rock Creek, a tributary of the Snake River. The order followed a report by the Idaho Department of Health and Welfare that Twin Falls was discharging untreated wastes into the creek at the rate of a half-million gallons a day. EPA said the discharge was from a bypass around a pumping station that had broken down.

This order emphasized the city's responsibility for prompt and effective action to stop polluting Rock Creek and set the stage for possible further action by the Government to enforce the Federal Water Pollution Control Act, Mr. Dubois said. ■



**William D. Dickerson** has been appointed Assistant Director for Resource Development Liaison in the Office of Federal Activities. The Resource Development staff is responsible for liaison with those Federal agencies which are principally engaged in natural resource and energy development such as the Departments of Interior and Agriculture, the Corps of Engineers, and the energy agencies. Mr. Dickerson is a graduate of Kansas State University and holds an M.S. degree in Aeronautics and Astronautics from the University of Washington. He has been employed in the Office of Federal Activities since 1972 as technical coordinator for the development of environmental impact statement review guidelines.

# PEOPLE

**William T. Wisniewski** was recently appointed Director of the Personnel Division in EPA's Region III. Before his EPA appointment, Mr. Wisniewski served as personnel officer for the Philadelphia District Office of the U.S. Internal Revenue Service. Mr. Wisniewski had spent eight years at the Mid-Atlantic Regional Office of the Internal Revenue Service in a variety of capacities ranging from management intern to personnel officer. A native of Philadelphia, Mr. Wisniewski received a B.S. in Management from Temple University in 1965.



**W. Jan Chong** has been appointed Chief of Region II's Support Services Branch. A Brooklyn resident, Mr. Chong is a native of Honolulu. He is a 1941 honors graduate of Rensselaer Polytechnic Institute (N.Y.) in chemical engineering. His most recent position was manager of Facilities Engineering and Administration Services at Seatrain Lines in Weehawken, N. J. He had previously been Executive Director of Yonkers(N.Y.) Urban Renewal Agency and project manager with the N.Y. State Urban Development Corp. He has also worked with private planning firms and taught graduate courses in urban planning.



**John Bonine**, an EPA Deputy Associate General Counsel, has been named Associate General Counsel in charge of the Air Quality and Noise Control Division. Before serving as Deputy Associate for the Pesticides, Toxic Substances and Solid Waste Division, Mr. Bonine was a senior staff attorney in the Air Division of the General Counsel's office for three years. During those years, he helped develop EPA's transportation control plans and later helped defend them in the courts. Mr. Bonine is a graduate of the Yale Law School and a member of the California Bar.



**Dr. J. David Yount**, an environmental chemist in EPA's Ecological Effects Office in Washington, D.C., has been appointed Deputy Director of EPA's Environmental Research Laboratory in Duluth, Minnesota. He was named to this post by Dr. Donald I. Mount, Director of the laboratory. Dr. Yount will act as liaison between the Duluth Laboratory and EPA headquarters in Washington, D.C. as well as assume responsibility for managing research programs at the lab. Dr. Yount has served as scientific specialist for the freshwater pollution ecological effects program including eutrophication and lake restoration Great Lakes research, and the effects of environmental stress on freshwater organisms and ecosystems.



**G. William Frick's** selection by Administrator Russell E. Train for the position of EPA General Counsel has been approved by the U.S. Civil Service Commission. Mr. Frick succeeds Robert V. Zener, who left to join a private law firm. Having served in the General Counsel's office for three years, first as Associate General Counsel, Water Quality Division, and then as Deputy General Counsel, Mr. Frick has extensive knowledge of the range of legal matters relating to EPA activities.

Mr. Frick was born and educated in the Midwest, receiving his B.A. and law degree from the University of Kansas. After working in a private Missouri law firm for two years, he joined the EPA as an attorney in the Air Quality and Radiation Division in August 1971.



**James R. Marshall** has been appointed Director of Public Affairs for EPA's Region II Office in New York City. He succeeds Donald R. Bliss, Jr., who is now Public Affairs Director in the Agency's Region X Office in Seattle. Mr. Marshall served with New York City's Environmental Protection Administration for four years, ending up as assistant administrator for communications with responsibility for all the Agency's public affairs and press information activities. He has had long experience as a technical and environmental journalist. A native of Canada, Mr. Marshall is a chemical engineering graduate of Queens University in Kingston, Ontario. He worked as a chemical engineer for Union Carbide Canada for four years in Montreal East before moving to New York in 1960. He is now a U.S. citizen.

**Robert Schaffer**, formerly an Associate Deputy Assistant Administrator in the Office of Research and Development, has been appointed Director of the Effluent Guidelines Division in the Office of Water and Hazardous Materials. Before assuming his research post, Mr. Schaffer had been Director of Permit Assistance and Evaluation, Office of Enforcement, for two years, and had previously served in several water pollution control positions in EPA and its predecessor agencies.



**Charles Mooney, Jr.**, son of Dorothy Cotton and Charles Mooney, both EPA employees, was a member of the U.S. Olympic boxing team and won a Silver Medal in the recent games at Montreal. A native of Washington, D.C., Mr. Mooney is the Armed Forces bantam-weight titleholder. He won 56 out of 61 amateur fights in his career before winning a place on the Olympic team. His mother is a secretary in EPA's Office of Planning and Management and his father, Charles Mooney, Sr., is a public information specialist in EPA's Public Information Center.

Six researchers of the Environmental Research Laboratory in Duluth, Minnesota have been cited for their contributions to the reference book used by water chemists and bacteriologists throughout the world: **Mirko D. Lubratouich**, Director of the Laboratory's Office of Engineering and Administration, chaired the committee of scientists responsible for rewriting one of ten sections in "Standard Methods for the Examination of Water and Wastewater."

Mr. Lubratouich, former national director of the American Water Works Association, was selected for the chairmanship because of his long standing interest and experience in water pollution control.

All of the researchers involved in rewriting the book were commended by William McBeath, Director of the American Public Health Association. They are **Richard L. Anderson**, **John W. Arthur**, **Kenneth E. Biesinger**, **James M. McKim** and **Charles E. Stephan**.

# COUNCIL SAYS IMPACT STUDY WORKS WELL

The environmental impact statement requirement of the National Environmental Policy Act (NEPA) is working well and fulfilling its objective of improving government decisions that affect the environment. This is the conclusion of a recent Council on Environmental Quality report to the President and Congress, which analyzes the experience of 70 Federal agencies in preparing environmental impact statements over the past six years.

In releasing the report, CEQ Chairman Russell W. Peterson noted that the environmental impact statement procedures have become increasingly routine and effective parts of planning and decision-making. Nevertheless, there is need on the part of top management for greater sensitivity to the value of using the EIS process as a tool for better program and policy analysis, he said. A major goal of NEPA is to make environmental analysis as integral a part of agency operations as economic and technical analyses.

Originally, there was great concern that the EIS requirement would cause crippling red tape and needless delays in federal decision-making that would adversely affect the economy. The Council found that although NEPA delays occurred in years past, these are now becoming rare as agencies improve their environmental expertise and begin EIS preparation earlier.

There are three points in the EIS process when delays can occur—in preparing the draft, in preparing the final statement after comments are in, and after issuance of the final statement. The time required to prepare a draft EIS differs from agency to agency and from project to project. The scope of a project, the experience of the people preparing the statement, the relationship of the EIS process to the decision-making process, and the priority accorded by the agency management to the statement and the project itself are all critical.

"As part of our survey of NEPA," Dr. Peterson said, "we checked into the amount of litigation that has arisen in connection with the EIS process and concluded the claim that NEPA-related suits interfere with the timely execution of a substantial number of Federal

actions simply does not wash.

"In the five and a half years between January 1, 1970, and June 30, 1975, a total of 654 actions has been brought, alleging an NEPA issue. During that same period, Federal agencies initiated tens of thousands of projects; in 1975 alone, agencies assessed more than 30,000 projects for environmental impacts. Since 1970, about 6,000 draft EIS's have been submitted. Only 291—less than 5 percent—were challenged in court as being inadequate," Dr. Peterson pointed out.

"Our analysis indicated," he continued, "that, of 332 cases completed by June 30, 1975, about one-third were dismissed at the trial court level. Roughly 60 resulted in temporary injunctions, which ranged from a few weeks to the time required to prepare an adequate impact statement. Only four cases resulted in 'permanent' injunctions—and not even in these was the agency precluded from proceeding with its project or program after it complied with NEPA."

The agencies most affected by completed NEPA litigation, according to the report, have been the U.S. Department of Transportation (26 percent of the cases), the U.S. Department of Housing and Urban Development (14 percent), and the Corps of Engineers and the U.S. Department of Agriculture (approximately 10 percent each).

One of the appendices of the CEQ report gives a rundown of some of the more notable effects of the EIS process on Federal decisions. Among them are:

**Department of the Interior**—The final EIS on the 800-mile Trans-Alaska Pipeline prompted important design changes and other improvements in routing and construction techniques.

An EIS prepared by the Bureau of Land Management and the Forest Service on proposed phosphate leasing on 25,000 acres of the Osceola National Forest, Fla., prompted the decision in 1975 to defer a leasing decision pending completion of a two-year study by the U.S. Geological Survey.

**Atomic Energy Commission**—Two major radioactive waste disposal proposals of the former Atomic Energy Commission, one at Lyons, Kans., and the other at the Savannah River, S.C.,

were cancelled because of uncertain environmental impacts, identified through the EIS process.

**Nuclear Regulatory Commission**—The Nuclear Regulatory Commission used the Atomic Energy Commission EIS on the breeder reactor and its own on the plutonium recycle proposal as definitive bases on which to develop stronger measures to safeguard against misuse of nuclear materials.

**Corps of Engineers**—The Corps of Engineers decided to cancel or stop work on over a dozen proposed projects because its NEPA process—not litigation—revealed that significant environmental damage would result. Eleven other projects have been stopped until environmental analyses are completed.

**Department of Transportation**—DOT estimates that since 1970 scores of major highway and airport projects have been modified or dropped as a result of the EIS process. The decision of Secretary Coleman to reject the I-66 extension into Washington, D.C., is a recent example.

**General Services Administration**—In 1974 the Kennedy Library Corporation proposed construction of the Kennedy Library and Museum just below Harvard Square in Cambridge, Mass. The General Services Administration, which was to maintain the structure, issued a draft EIS which focused on traffic and other impacts. Because of local controversy, the Library Corporation decided against the Cambridge location and is now proposing Columbia Point in Boston for the Library site. As a result, GSA is planning a new draft EIS.

**Department of Agriculture**—The Soil Conservation Service has successfully used preliminary draft EIS's to broaden the scope of project alternatives, particularly those involving non-structural measures.

Perhaps the most far-reaching use of the EIS process has been the work of the Forest Service to develop a long-range program for forest lands pursuant to the Resources Planning Act of 1974. The draft EIS addressed the alternative programs that best reflected public and other agency perceptions of realistic program choices. After circulation of the draft statement and evaluation of comments on it, the Forest Service submitted its final program recommendations to the President in December 1975. He sent them along with his statement of policy to the Congress in March 1976. ■

## By Rich Lathrop

Mention Colorado, Montana, North and South Dakota, Utah and Wyoming and most people conjure up images of mountains, skiing, vast wheatfields, cattle herds and cowboys, seemingly endless plains, deserts, wilderness, national parks, forests.

Fewer people think of cities in these Region VIII States violating national air standards or of raw sewage degrading streams. Nor is there general recognition of incredible pressures being felt in those states as a result of the Nation's increasing demand for fuels.

In fact, spokesmen for the Regional office in Denver, familiar with other parts of the nation, often found solace in the idea that they had the relatively easy job of preventing environmental degradation rather than the difficult task of correcting past abuses. That bubble burst about the same time the flow of Arab oil stopped. Suddenly, prevention became a challenging task indeed.

Because under the plains lay thick seams of coal. In the mountains of Colorado, Utah and Wyoming billions of barrels of oil lay trapped in shale. An upsurge in demand for uranium opened new mines, expanded others.

Whether the new resource activity was in fact feverish or only perceived that way by beleaguered planners and decision makers throughout the region is still uncertain. What is certain is that almost nobody was prepared for it.

Plans, proposals and rumors flew about the area like a startled covey of quail. They included coal-fired power plants, strip mines, underground mines, plants to liquefy or gasify coal, transmission lines to transport power, slurry pipelines to move coal, new railroad lines, even new towns to handle the expected influx of people.

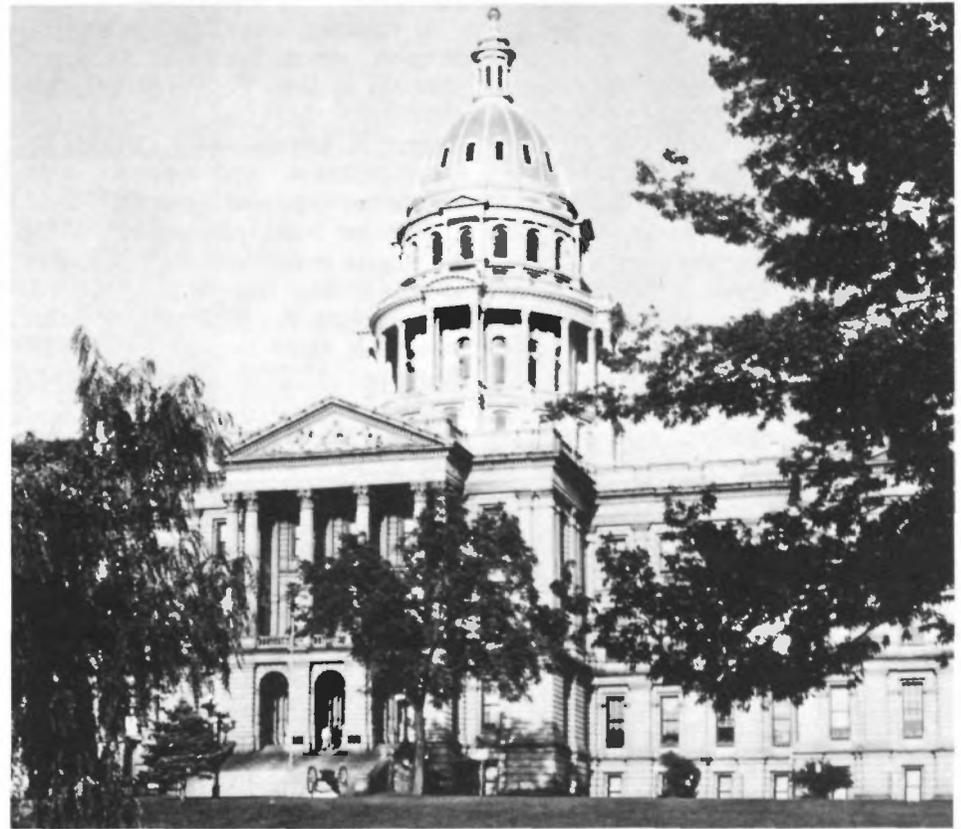
But the Federal government owns nearly a third of the region's land and decisions about how it would be used involved the National Environmental Policy Act. Impact statements would have to be prepared, and some of them would grow to more than a foot in thickness.

Literally hundreds of regulatory bodies would become involved in the decisions, promoting developers' charges that multiple layers of bu-

Rich Lathrop is a Region VIII Public Affairs Officer

# REGION VIII

# ON PARADE



*Colorado State Capitol in Denver*

reaucrazy were hampering development of resources at a moment when the Nation desperately needed them.

The proposals keep coming and the decisions must be made sufficiently well to stand the test of technology, law, economics, politics, human and social needs.

Speechwriters term that "the awesome task of balancing conflicting needs of society." Nobody's dead sure it can be done.

But coping with energy development is only one part of the Region VIII task.

## Air

In the Denver and Salt Lake City metropolitan regions auto-related air pollution has produced problems familiar to city dwellers. Denver, it now appears, will continue to exceed pri-

mary standards for carbon monoxide and oxidants into the 1980's. Salt Lake City's revised transportation control plan should help achieve those standards by 1978.

Auto emission control equipment largely designed and tested at or near sea level does not perform as well at these mile-high cities, thus reducing the effectiveness of the Federal new car emissions control program.

So a heavier burden falls on the cities to devise controls to reduce air contaminants. Traffic and mass transit improvements, along with the new car program, have helped the cities hold their own against increases in pollution. Achieving reductions will require tougher measures.

There are bright spots in the picture though. Thousands of tons per year of

*Continued on page 20*

Continued from page 19

reactive hydrocarbons, for instance, will be kept out of Denver's air under a vapor recovery program. The fumes which evaporate when gasoline is transferred from tanks into trucks and from trucks into service station storage tanks will be captured and condensed into gasoline.

A second phase in that program would capture hydrocarbons at service station pumps themselves. Problems of safety and economics will make that more difficult to implement but an additional 2,500-3,000 tons of hydrocarbons would be kept out of the smog production cycle.

Ninety-eight percent of the major stationary sources of air pollution in the Region are either meeting standards or are in compliance with their cleanup schedules.

New facilities will come under new source performance standards and, in many parts of the Region, will fall under the new significant deterioration rules. Those rules are designed to protect air quality that is already bet-

ter than required by the National standards.

## Water

All major industrial and municipal dischargers in the Region are under the permit system, and Colorado, Montana, North Dakota and Wyoming have all taken over that program as the approved permit-issuing agencies.

A vigorous Regional enforcement program, which has collected nearly \$250,000 in fines from violators, has convinced area dischargers the Agency is serious about cleaning up water pollution. And voluntary compliance has improved considerably.

A major water problem still facing the Region is pollution from non-point sources (diffuse run-off) and from irrigation return flows. Hopefully some answers to these questions will come from the 22 "208" agencies in the Region.

Those local agencies, with 100 percent Federal funding totalling \$12.5 million, are developing plans to man-

age wastewater in their areas well into the future.

Water quality continues to be improved as construction grant funds awarded by EPA aid communities in building or improving their waste treatment works. As in other parts of the country, fish are returning to streams thought to be "dead" just a few years ago . . . boaters and swimmers are returning to areas formerly posted as dangerously contaminated.

All Regional States have received grant funds under the Drinking Water Act and are now preparing program plans aimed at implementation of the law.

## Noise

Regional noise control programs have enjoyed remarkable success because of their reliance on a community approach, aerial monitoring and a community noise control workbook that has received international attention and Agency acclaim.

With EPA assistance, effective noise control programs continue to proliferate in the Region where quiet is an important personal value that figures prominently in the western lifestyle.

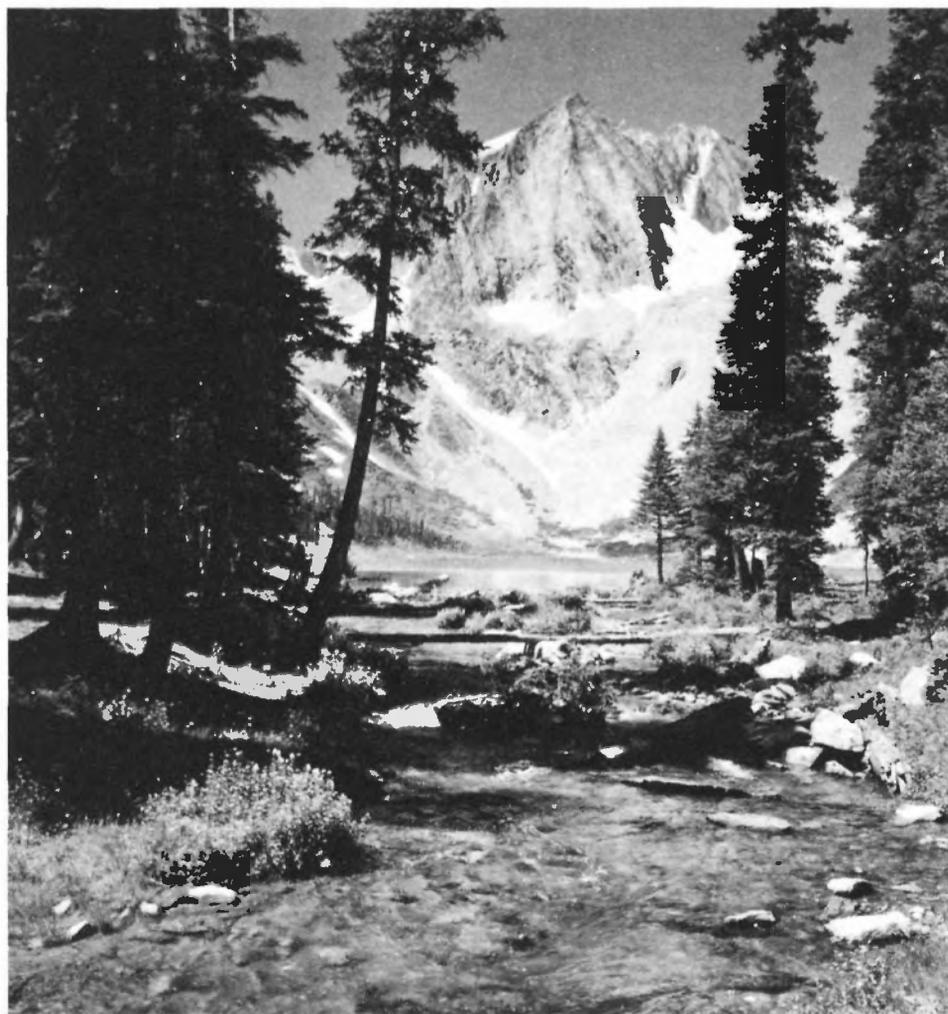
Air and water programs require a Regional or basin approach, but noise is largely a community problem, and it was within the communities that EPA found the people, the energy and the resources to control noise.

## Radiation

As the Nation seems to be moving toward increasing reliance on nuclear power to generate electricity, uranium mining and milling is increasing tremendously in the Region. Something like 70 percent of the Nation's known uranium reserves are located here.

EPA, the Energy Research and Development Administration, and State health departments are still grappling with problems from a 1950's uranium boom. Radioactive sands—tailings—left after milling of uranium bearing ores have been implicated as health hazards in various parts of the Region, most notably in Grand Junction, Colo., where they were often used as a backfill material in excavations for buildings.

Ongoing research is yielding answers to some of the questions of how to dispose of tailings and how to protect unborn generations from their radioactivity.



## Pesticides

Montana and Wyoming plans to certify applicators of restricted use pesticides have been approved and their programs are beginning. Certification plans from North and South Dakota are currently being reviewed. Plans are being developed in Colorado and Utah but problems of legislative authority remain to be worked out in those States.

Colorado has received approval from EPA to use a limited amount of DDT to control a plague outbreak in ground squirrels and similar rodents in six Colorado counties. The plague is transmitted by fleas. The sheer size of the area needing treatment, the shortage of personnel and the need for more lasting control than is provided by carbaryl led to Agency approval.

## Solid Waste

Region VIII solid waste highlights include the successful implementation and spread of the Waste Not high-grade white paper recycling project. In less than a year some 361 tons of paper have been reclaimed in participating Federal agencies in the Denver area.

Through the coordination of the Federal Regional Council in Denver and with technical assistance from EPA's solid waste staff, the program is mushrooming through Federal and State agencies and the Region estimates a thousand tons of paper may be reclaimed by year's end.

Since about 17 mature pulp trees are required to produce a ton of paper, the Denver program will help stretch forest resources.

Also with EPA technical assistance, the State of Montana has collected, crushed and recycled some 20,000 junked or abandoned automobiles since 1973. Placed bumper to bumper, those cars would stretch something like 56 miles.

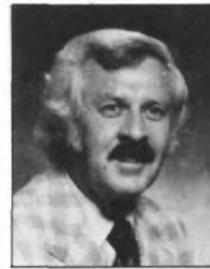
"We are proud of the environmental achievements that have come about in this Region as a direct outgrowth of excellent cooperation of all sectors," Region VIII Administrator John A. Green said.

"Most importantly, I think environmental considerations have now become an integral part of nearly any kind of planning or development decision, rather than a 'tack-on' item. That should help us anticipate and deal with environmental aspects of change before problem areas develop." ■

# Region VIII's LEADERSHIP TEAM



Regional Administrator  
John A. Green



Dr. Cooper H. Wayman  
Director,  
Office of  
Energy Activities



David A. Wagoner  
Director,  
Air & Hazardous  
Materials Division



Irwin L. Dickstein  
Director,  
Enforcement Division



David D. Emery  
Director,  
Management Division



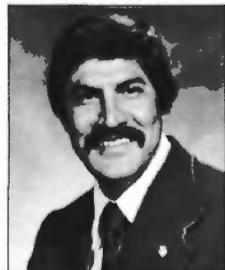
Dean E. Norris  
Director,  
Office of  
Congressional &  
Intergovernmental  
Relations



Charles W. Murray  
Director,  
Water Division



Keith O. Schwab  
Director,  
Surveillance &  
Analysis Division



Charles C. Gomez  
Director,  
Office of Civil Rights &  
Urban Affairs



James W. Sanderson  
Regional Counsel



Samuel E. Landis  
Federal Regional  
Council Liaison



Howard W. Kayner  
Director,  
Office of Public Affairs

# PROTECTING THE NEW FRONTIER

The Great Divide forms the very backbone of the North American continent. Here, the towering peaks of the Rocky Mountain range separate Atlantic-bound waters from those destined to reach the Pacific Ocean. Here too the headwaters of such rivers as the mighty Colorado and the Rio Grande gather in the melting mountain snows and course down past the unparalleled splendor of the canyons, farmlands, forests, plains, salt and mud flats, and vast deserts below.

The State of Colorado is part of this natural grandeur. With a mean elevation of 6,800 feet, it has been called the "top of the world." But other residents of Region VIII could make the same figurative claim about their States— Montana, North Dakota, South Dakota, Utah and Wyoming.

Montana, for instance, is a Spanish word meaning mountain country. The State is the fourth largest in America in geographical size, and yet it is so thinly populated that it retains the quality of the remote wilderness which distinguished it in the early twentieth century. Montana is the home of some of nature's most spectacular attractions such as the granite peaks and mountain lakes of Glacier National Park and the geysers, hot springs and volcanic topography within its three entrances to Yellowstone National Park.

The western boundary of the State is crowned by the lofty Bitterroot range, a part of the Rocky Mountain system. The Great Plains extend over the eastern landscape, and although the high grass which once covered

them is gone, sheep and cattle still graze on the remaining short grass. Below the plains, the earth holds petroleum, natural gas and a wealth of mineral deposits, including coal.

Since the admission of Alaska and Hawaii to the Union, the Dakotas constitute the geographical center of the United States. The ancient rock formations of the Black Hills and the Badlands can be observed here, as well as the colorful, deeply eroded clay gullies and the marine and land fossils they hold. The Missouri river rolls southward through the States' rugged terrain.

Constant winds and a continental climate cause the Dakotas to have severe winters and short, hot summers, but several crops including corn thrive in the rich soil. Only Kansas



produces more wheat than North Dakota, which is the most rural of the 50 States with 90 percent farmland. South Dakota has more sheep than humans, plus large numbers of cattle and hogs. The western part of the Dakotas is a semi-arid, treeless plain where cattle and sheep graze above coal, gold and other mineral deposits.

Signs of America's westward expansion flourish in these two States. In South Dakota the stone faces of four Presidents gaze out over the Badlands from Mount Rushmore. Theodore Roosevelt spent summers ranching in North Dakota between 1883 and 1886 and the State now contains three units of the National Memorial Park in his honor.

The 1876 defeat of General Custer by Sitting Bull and Crazy Horse in the battle of the Little Bighorn occurred here. So did the massacre which terminated Indian resistance to the white man's relentless invasion—Wounded Knee. Presently, there are more Native Americans living in the West than ever before in history, but most are living on reservations in the Dakotas and other States.

Utah is "the State the Saints built." Its capital and largest city is Salt Lake City.

Of the American States, only Nevada receives less rainfall than Utah. It is a geologist's paradise, rich in the natural resources which have become the life-blood of the technological society we live in. The Bingham Canyon open-pit copper mine is the largest man-made excavation in the world, measuring more than two-and-one-half miles across and one-half mile down.

Massive mountains rise up in the eastern portion of the State, while farther west the land levels out into the Great Basin. To the south, red sandstone throbs through the canyons... cut by wind and the Colorado river. Remnants of ancient Indian cliff dwellings can be found in these parts. Bryce Canyon National Park and Zion National Park (70 percent of the State's total acreage is federally owned or administered) help to preserve the area's natural beauty.

At one time western Utah was submerged beneath a huge Pleistocene lake, Lake Bonneville. During many thousands of years the water fluctuated,

and then subsided, leaving behind a desert of salt, alkaline soil and a number of lakes, including the Great Salt Lake. Gulls, pelicans, and blue herons skim over the sand flats and mud shores of the water, which through evaporation has reached concentrations of mineral salts several times greater than the oceans.

The word Wyoming is of Indian origin and thought to mean "large plains," although the State actually marks the end of the plains. In the west, the tall grass gives way to the wooded slopes of the Bighorn Mountains, the one time hunting ground of the Crow and Sioux. But only in the central section, where it is dissected by the Great Divide, is the sweep of the Wyoming plains broken. It was in this area that chains of covered wagons rolled westward over the Oregon Trail.

The Grand Teton and Yellowstone National Parks are here, the latter area being where the Snake River begins its long and winding journey to the Missouri. The production of petroleum and petroleum-related products boosts the State's economy, as does its production of sodium carbonate from its resource-rich underground reserves.

If there ever were any real cowboys, they were surely to be found in Wyoming. In addition to the livestock, several crops are farmed, including the

beets which yield much of our sugar. Large scale irrigation has permitted the cultivation of diversified crops.

Most of the land that comprises Region VIII was acquired by the Union as part of the Louisiana Purchase of 1803; most of the territories achieved Statehood toward the end of the 19th century. Colorado was one of the first in the territory to be admitted to the Union. The date was 1876, winning it the name "Centennial State." This year Colorado is celebrating its own centennial.

In the east, parts of Colorado's Great Plains still retain the characteristics of the tidal flats they once were. The plains eventually turn into breathtaking mountains, the most famous of which is Pike's Peak. Toward the west, beyond the Great Divide, lie some of the most scenic spots in the United States, including Rocky Mountain National Park, Mesa Verde National Park and The Great Sand Dunes Monument.

The Basket Makers, the earliest-known Indians, settled in the mesa country before the beginning of the Christian era. In southern Colorado, one can still see the rock-ledge homes of the Indian cliff dwellings.

Due to low rainfall, Colorado has been forced to irrigate its land to such an extent that it is now second only to California in acres of irrigated farmland. Below are ores of silver, lead, copper, zinc and uranium.

Famous cultural festivals are staged at Aspen and Central City, where John Gregory struck gold in 1859 and attracted hordes of settlers. To this day, tourism remains a chief cash crop of Colorado and the other Rocky Mountain States.

As in the old West, a frontier has suddenly been formed, this time in the new West. The struggle is no longer for land, but for what is underneath the land. The resources to be found there are unquestionably of economic value, but hanging in the balance is the awesome threat of the gradual destruction of this magnificent land. The degree of beauty which exists in Region VIII must now be matched with an equal degree of high-minded environmental protection, lest we lose that which is so precious its like could never be had again. ■



# INQUIRY

## What kind of noise bothers you most?

**Emilio Escaladas**, Noise Branch Representative, Region II, New York City:

"For me the most irritating noise comes from being involved in the daily transportation cycle. The awesome subway ride. The average New Yorker spends about a hour or hour and a half daily on subways, though, of course, some people have longer rides. The trains get you to your job and home again, but with accompanying pain rather than pleasure.

"The problem is that the subway system is old, dilapidated and maintenance has been neglected for years. The wheels are mostly flat from long use so they screech—and there are 16 wheels for each car. Some effort is being made to upgrade the system by 'truing' the wheels (grinding them round again) but this is an enormous job. The Urban Mass Transit Authority and New York City have \$40 million to spend over the next ten years to improve the system and attempts are being made to acoustically treat the stations. Sound absorbing materials are being put on the platforms facing the on-coming trains and barriers are being put between the tracks to contain the noise. Tracks are being welded to reduce vibrations.

"Levels of noise inside the cars rise to 86 to 88 decibels, and on the platforms the levels can reach 110-115; this is the threshold of pain. These levels cause temporary impairment of hearing. Higher decibel levels can cause permanent damage.

"In addition to this kind of noise, New Yorkers living near major airports are bombarded with aircraft noise. In a busy airport like Kennedy, traffic sometimes becomes so heavy that planes are going over every minute at

1,000 ft. or lower. So these people are assaulted twice—by subway and by aircraft noise. For them, noise is a more real pollutant than those in the air or water. Maybe to be tense, irritable and half deaf is the price paid for modern life?"

**Jay Goldstein**, Sanitary Engineer, Solid Waste Branch, Region V, Chicago, Ill.:

"The general background level of noise in a city may be high, but we've all become accustomed to it, and pretty much disregard it. It is the loud, unexpected, silence-shattering noise that troubles me most.

"I live in mid-city Chicago on the north side, and it is a quiet neighborhood most of the time. But frequently in the early morning hours hot-rodders drag-race through the streets with roaring engines. Loud and unnecessary noise is against the city's noise ordinances, but seemingly little is or can be done to enforce these rules. Certainly, this kind of noise is disruptive of the peace and quiet of whole neighborhoods."

**Mary Rhones**, Secretary, Office of Planning and Management, Economic Analysis Division, Headquarters:

"I live in Washington, D.C., on a main thoroughfare, near the Maryland line. Every morning at about 5:30 the sound of concrete mixers and loading vans barreling down the street seems to jar the whole house. When we bought the house, although some trucks used the road, I thought we would get used to traffic noise, but it has become progressively louder and more frequent since more trucks now use the road. It's so bad at times that my children can't hear the radio or the TV even with all the windows closed. We really like our house and neighborhood but

the sound is getting so annoying that we have considered moving.

"The other type of noise that bothers me is inside my house. I have a teenage son who is learning to play the bass guitar in a five-man band. They practice in our basement but since they're just learning to play together they insist on turning up the amplifiers so that each of them can hear his own instrument. The result is that the sound goes through the vents and reaches every corner of the house and can even be heard outdoors if the windows are open. It's the kind of sound that is so loud it stuns you because you literally can't hear anything else. As long as they're going to have the band I don't see anything that can be done about the noise except to soundproof the room they practice in."

**William Tripp**, Oil and Hazardous Materials Section, Region I, Boston, Mass.:

"The steady, high level of traffic noise that surrounds me as I commute back and forth to work bothers me most. I travel about an hour each way from my home to the EPA laboratory in Lexington, Mass., on Interstate 95. This is a heavily travelled highway and the noise from other cars and trucks is unremitting."

**Anthony Wayne**, Sanitary Engineer, Environmental Evaluation Branch, Region VII, Kansas City, Mo.:

"Noise to me is unwanted sound. I live in the country but I'm uncomfortably aware of highway noises—roaring of engines and the whining of heavy truck tires. On quiet evenings this sound nuisance can be heard for two miles. Much of the noise results, of course, from breaking the speed limit."



Emilio Escaladas



Jay Goldstein



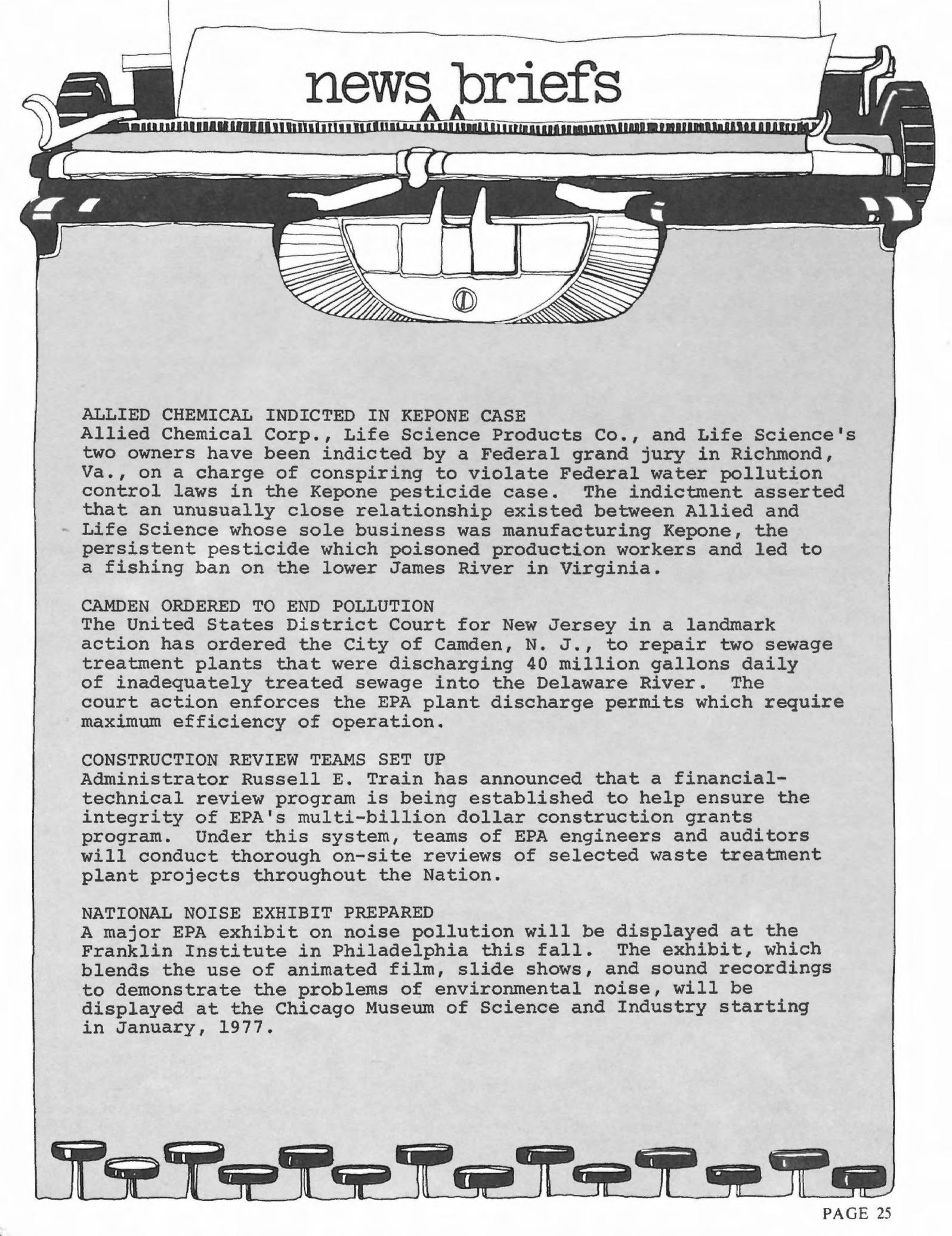
Mary Rhones



Anthony Wayne



William Tripp



# news briefs

## ALLIED CHEMICAL INDICTED IN KEPONE CASE

Allied Chemical Corp., Life Science Products Co., and Life Science's two owners have been indicted by a Federal grand jury in Richmond, Va., on a charge of conspiring to violate Federal water pollution control laws in the Kepone pesticide case. The indictment asserted that an unusually close relationship existed between Allied and Life Science whose sole business was manufacturing Kepone, the persistent pesticide which poisoned production workers and led to a fishing ban on the lower James River in Virginia.

## CAMDEN ORDERED TO END POLLUTION

The United States District Court for New Jersey in a landmark action has ordered the City of Camden, N. J., to repair two sewage treatment plants that were discharging 40 million gallons daily of inadequately treated sewage into the Delaware River. The court action enforces the EPA plant discharge permits which require maximum efficiency of operation.

## CONSTRUCTION REVIEW TEAMS SET UP

Administrator Russell E. Train has announced that a financial-technical review program is being established to help ensure the integrity of EPA's multi-billion dollar construction grants program. Under this system, teams of EPA engineers and auditors will conduct thorough on-site reviews of selected waste treatment plant projects throughout the Nation.

## NATIONAL NOISE EXHIBIT PREPARED

A major EPA exhibit on noise pollution will be displayed at the Franklin Institute in Philadelphia this fall. The exhibit, which blends the use of animated film, slide shows, and sound recordings to demonstrate the problems of environmental noise, will be displayed at the Chicago Museum of Science and Industry starting in January, 1977.



Return this page if you do NOT wish to receive this publication ( ), or if change of address is needed ( ), list change, including zip code.

## SHARING THE JOURNAL

The EPA Journal, which has been an internal publication since it was started a year and a half ago, is now available to the general public on a subscription basis.

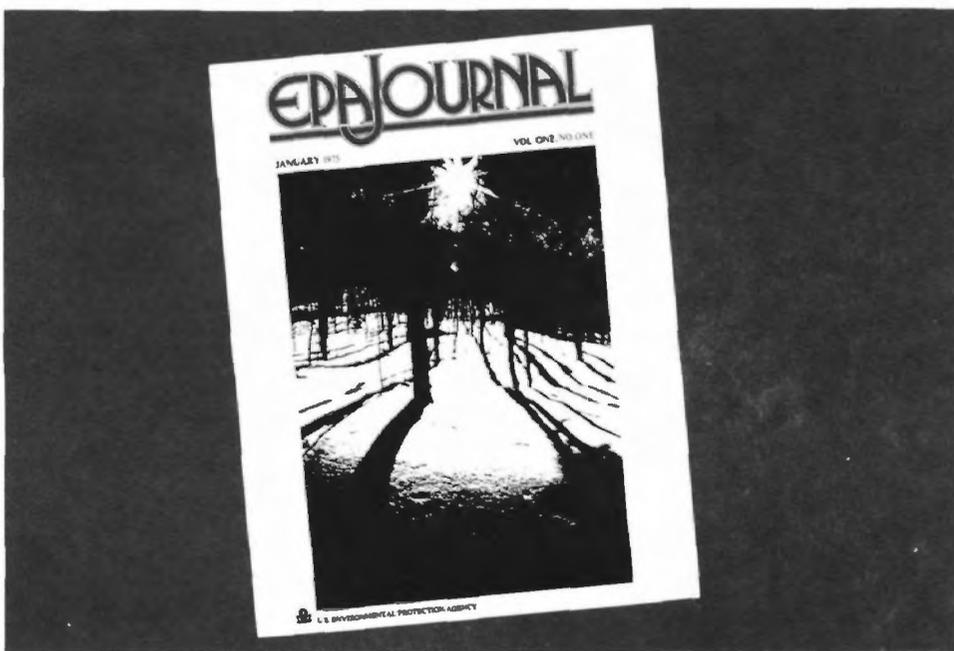
Permission was sought from and recently granted by the Office of Management and Budget to allow external distribution of the Journal. Numerous requests for the magazine had been received from universities, civic and environmental organizations, industries and other government agencies.

The subscription rates for EPA Journal, which are set by the Government Printing Office, are \$8.75 a year for subscribers residing in the United States and \$11 annually for those living outside the country. Subscription requests should be sent to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Single copies can be obtained for 75 cents each at the same address. The magazine will continue to be distributed to EPA employees without charge.

The format and policy of the magazine will remain essentially the same since most of the subjects discussed in this issue-oriented publication are of interest to external as well as internal audiences.

When the EPA Journal was established it was believed that its purpose would be best served by a home distribution system intended to give each employee, as well as his or her family, more leisure time to read the publication. A questionnaire on how the magazine was being received was carried in the June issue. Here are the highlights of the reader response about the Journal's usefulness, coverage and distribution system:



### USEFULNESS

- 94 percent like reading the Journal at home
- 86 percent said the Journal helps keep them posted about Agency activities
- 50 percent find it useful to reproduce Journal articles

### COVERAGE

More emphasis desired on:

Laboratories	35 percent
Regions	24 percent
Headquarters	18 percent

Percent who always read the following Journal department sections:

People	64 percent
News Briefs	63 percent
Around the Nation	57 percent
Inquiry	47 percent

### DISTRIBUTION SYSTEM

The EPA Journal is currently distributed to the homes of the Agency's 10,000 employees by third class bulk rate mail.

- 83 percent of Journal readers prefer home over office delivery.
- 56 percent indicated that other members of their family read the Journal at home. According to the poll, home delivery more than doubles the Journal's readership.

Mail delivery is about 95 percent effective in reaching Journal readers' homes.

These percentage figures are tabulated from the responses of the 150 Journal readers who answered the survey. Seventy-five percent of these were EPA professionals who read every issue.

A number of helpful suggestions were submitted in response to the survey indicating additional areas of special reader interest as well as current developments at EPA which need coverage. These ideas should bear fruit in future issues of the Journal. ■