CLEANER TIMES

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EPA's Fuels Analysis Staff Studies Gasoline Products

Visiting retail outlets and grocery stores to buy gasoline additives is all part of the normal work carried out by the Source Fuels and Molecular Chemistry Branch, headed by Robert H. Jungers. Crystal Rogers, physical scientist, Jack Hein, physical science technician, and Needman Boodie, Duke University stay-in-school student, are part of a comprehensive fuels analysis team which identifies specific ingredients in gasoline products.

Jungers' Branch is part of the Environmental Monitoring and Support Laboratory which operates EPA's two-part fuel program. One part of the program requires all gasoline and additive manufacturers in the country to register their fuel and fuel additives with EPA. The second part of the program focuses on the ingredients in the fuels such as the manganese, sulfur, lead, and phosphorous content along with a variety of trace metals such as zinc, cadmium, mercury, and arsenic. Recently, analysis for toxic substances such as benzene, toluene, benzo-a-pyrene (BaP) were added to the list of ingredients to be studied.

Jungers pointed out that Congress recognized the potential health hazard associated with combustion products from motor vehicles when they amended the Clean Air Act in 1970 to require gasoline and additive manufacturers to register their products with EPA. "Emissions from motor vehicles are generally of respirable size and can penetrate into the lung area," Jungers explained, "and because they are at ground level and have toxic properties, we have potential health problems."

The fuels used in the testing program are. motor vehicle gasoline, motor vehicle diesel fuel oil, motor lubricating oil, off-the-shelf fuel and lubricant additives, and heating oil for the home and industry.

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The MacQueens Go To The White House

Arch MacQueen, MDAD/OAQPS, and his wife, Kathleen, never dreamed that their battle against strip mining would eventually take them to the White House. But the Cary residents found themselves in the Rose Garden August 3rd, not as antagonists, but as guests at the signing of a bill which will require strip miners to reseed and restore strip-mined sites as close to the original contour of the land as possible. For them, it was the culmination of years of lobbying for tough strip mining regulations.

Arch MacQueen worked with strip mining abolition groups in West Virginia, his native state, and lobbied in Washington with a coalition from the Environmental Policies Center a year and a half ago. He brought his concern about strip mining to North Carolina when the family moved to Cary six years ago.

To convince Tarheel congressmen and senators that strip mining is detrimental to North Carolina's economy, MacQueen and two others recently prepared a study which was submitted to legislators. In the report, MacQueen argued that electric utility companies pay more for coal produced through strip mining than for deep-mined coal. That cost is passed on to consumers, he said. He contended that power companies have become dependent on strip-mined coal which can be produced more cheaply than deep-mined coal because deep mining requires a bigger investment.

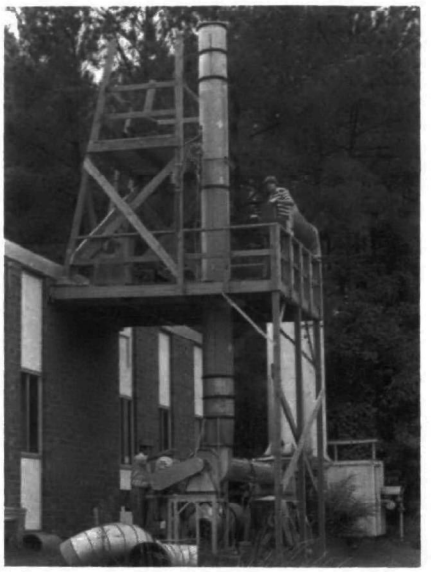
"Then when there's some economic demand on coal, immediately with open market (strip-mined) coal, the price skyrockets because they sell to the highest bidder," MacQueen said.

CP&L and Duke Power were paying as high as $55 a ton for coal that was selling normally at $10 to $12 per ton (during the energy crisis). In late 1974 and early 1975 the average price for strip-mined coal was over $40 a

(Continued on page 10)

Co-Op Students Involved in Cyclonic Flow Test Method Development

We interviewed Peter Westlin, an environmental engineer, ESED/OAQPS, at EPA's IRL facility to find out more about a vertical stack which is under construction at that facility. To our surprise we learned that two co-op students assigned to the Test Support Section of the Emission Measurement Branch have combined their efforts over the last nine months in developing a special test method for air pollution stack sampling. Mark Minday and Walter Pelletier, students in engineering at North Carolina State University, are alternating work sessions at EPA's IRL facility. Peter said, "One of the major projects to which both have contributed significantly is the development of a particulate sampling method for stacks with cyclonic gas flow--an area that is not covered by the present standard EPA sampling method."



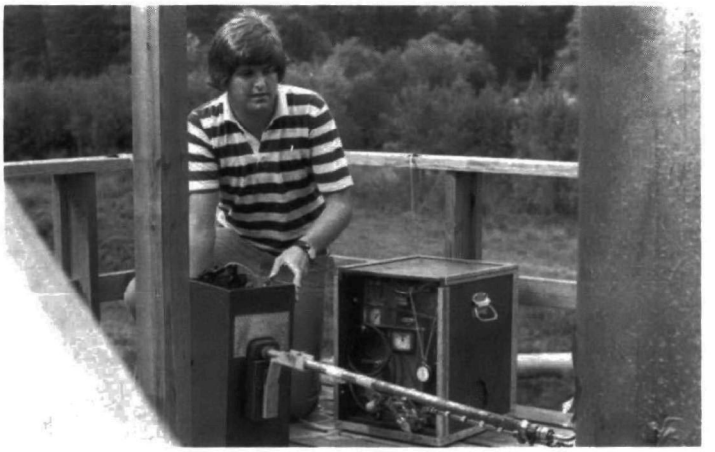
Walt Pelletier and Tom Logan.

The project began in September 1976 when Mark designed and fabricated a modification of the Method 5 equipment for field work under the direction of the Test Support Section staff. An EPA test crew, including Mark, went to a sugar beet factory in Nebraska last November to test the new method and compare results with those of the standard EPA method. The exhaust stack of the sugar beet plant allows emission sampling in both straight gas flow and cyclonic gas flow. The results of this test program were encouraging, but because of difficulties with the exhaust stack flow patterns the test results were not conclusive.

A second phase of the test method development program under more controlled conditions was proposed. Walt Pelletier undertook the design and execution of a laboratory test program using the facilities in the G-high bay area at the Tech Center. Modifications were made to the source simulator that allowed simultaneous standard method testing and cyclonic flow method testing. However, the results of these tests showed that the horizontal duct of the source simulator, among other problems, affected the test results.

The third phase of the program has begun at the IRL facility. Mark, under the guidance of the engineering staff, has nearly completed construction of a vertical stack that would allow simultaneous sampling with the cyclonic flow test method under relatively well-controlled conditions. This project has required construction of a two-level sampling platform and vertical stack. In addition, a particle generator must be installed to provide a source for dust concentrations in the stack gas. Preliminary tests indicate that acceptable flow conditions can be developed and work will continue on the construction.

"By the end of August," Peter said, "the test work on the development of the cyclonic flow test method should be completed. The resulting method will become the recommended procedure for sampling for particulate concentrations in stacks with cyclonic gas flow."



Walt Pelletier adjusting equipment for sampling at stack exit.

Tom Logan adjusting gas velocity for the sampling program.

Fluorocarbon Ban Proposed By Three Federal Agencies

Three federal agencies have joined to propose a ban on nonessential uses of fluorocarbon-containing propellants by October 15, 1978. The U.S. EPA, the Food and Drug Administration (FDA), and the Consumer Product Safety Commission have banned the manufacture of fluorocarbons because, according to the FDA Commissioner, the "fluorocarbons destroy ozone in the upper atmosphere. In so doing, they subject all of us to an increased risk of environmental change that might include altered climate and adverse crop conditions."

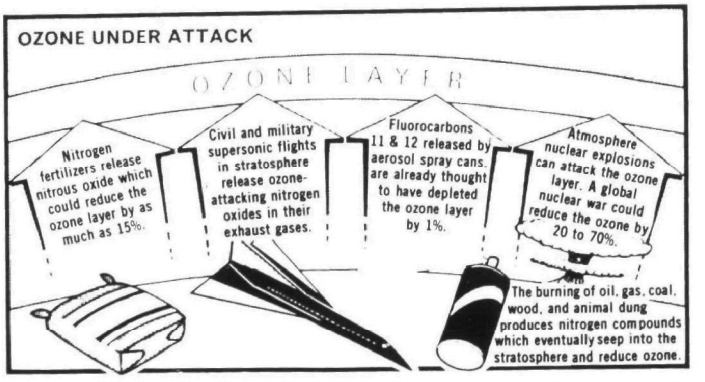
Concern over fluorocarbon use began in 1974 after two scientists published research that showed that fluorocarbons may be causing an indirect increase in the incidence of skin cancer by converting ozone (O_3) in the upper atmosphere into oxygen.

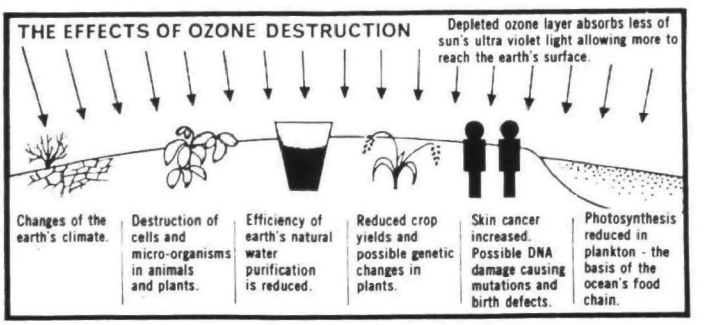
The ozone in the upper atmosphere exists in a thick layer about 25 kilometers above ground and acts as a shield to prevent much of the sun's ultraviolet (UV) light from reaching the earth. What UV light does get through the ozone layer is sufficient to cause sunburns. Too much exposure to UV light irritates the skin and can lead to skin cancer.

Fluorocarbons which travel into the upper atmosphere are reacting chemically with the ozone and converting it into oxygen faster than the ozone can be replaced. Current mathematical models predict that 7 to 16 percent of the ozone layer will be depleted in the next decade.

(Continued on page 8)

The Threat to Ozone





....and While You're Away -

Did you ever wonder what burglars do in the daytime? They could be scouting your neighborhood for an easy target. A stack of mail stuffed in the mailbox, grass that's too high - both are signs that you're away and have been for some time.

It's those same scenes that can cause you to return from your vacation to find your house in a shambles and your valuables gone. To avoid that, follow these suggestions from the Police Department.

- Lock all doors and windows, using double cylinder locks on back doors in particular.
- Arrange lamps and radios/TV in various parts of your home connected to automatic timers for use at customary hours to create a lived-in look.
- Leave shades and blinds in normal positions.
- Make sure all deliveries - milk, mail, newspapers, etc. - are stopped in your absence.
- Arrange to have the lawn mowed while you're away.
- Close the garage door - if you have one - because a garage can have a particularly abandoned look.
- Alert the Police Department and a trusted neighbor to watch for unusual activity while you're gone.
- Arrange automatically-timed outdoor lighting for burglar prevention.
- Don't notify the newspapers of your plans. They can report your trip when you return.

Even if you're only going to be out for the evening, it would be wise to follow some of these tips. Burglars spend lots of their <u>evening</u> hours searching for dark houses or houses where the same lights are left on too long. Don't let your house be one of them.

Person-to-Person

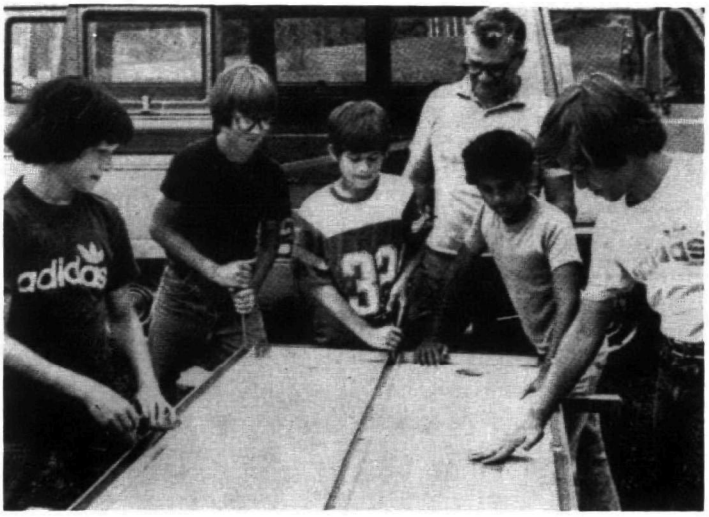
A sign attached to a tricycle was found in an EPA office which bore the following inscription: "EPA is not to be outdone by NASA. While NASA has its LEM (Lunar Excursion Module), EPA has its CTV (Contractor Transportation Vehicle).

Avis S. Purvis, EMSL/RTP, is planning a fall wedding. She and her future husband, James Boyce Hines, will be married September 10 at Cox Memorial Church in Durham.

Linda Porter, EMSL/RTP, is taking art lessons and she never realized she could draw so well. She's doing great!

Mary Lib Parrish, ESRL/RTP, fell and broke her hip recently. We all wish her a speedy recovery.

Solar energy consultant George Winders has been helping Kingswood sixth-graders build a solar energy panel. Working on the project are Dan Jaworski (Dr. Norbert Jaworski's son), Keith Brooks, Jeffrey Huneycutt (Mal Huneycutt's son), Simon Verghese and Craig Williamson.



Congratulations to Jack Greene, Administrative Officer, IERL, for his hole-in-one at Keith Hills Golf Course, Buies Creek on July 30, 1977. Jack hit an 8 iron on the 137 yard, par 3, #8 hole for his first hole-in-one. Witnesses included his brother, Finley Greene, Red Faultner, and Dennis Martin.

Dr. Thomas R. Hauser has been named Director, Environmental Monitoring and Support Laboratory effective August 8. He succeeds Dr. David Shearer who is now with the Office of Planning and Management in Washington, D.C.

SPECIAL ANNOUNCEMENT

The telephone number has changed for the automatic telephone answering device with a recorded message to provide current information about positions announced through the Merit Promotion Plan and any other special recruitment efforts, at the Environmental Protection Agency, Research Triangle Park, North Carolina.

The new number locally is 541-3129; FTS 629-3129; and commercially (919) 541-3129.

Facts Worth Printing

by Betty G. Abramson

Mae M. Walterhouse has been selected by EPA headquarters as the Director of the Federal Women's Program. She brings to her new position the know-how in planning and managing a national organization. Presently she is National President of Federally Employed Women, Inc. (FEW).

In July, EPA's FWP Representatives attended several workshops given by the U.S. Civil Service Commission and the National Federally Employed Women's Training Program, Inc., which were very informative. These workshops provided the representatives with ideas and material to present to EPA personnel.

Plans are underway for the Annual FWP Women's Week Program which will be of interest to all EPA employees. Please arrange with your supervisor to attend when you receive the announcements.

The Second RTP FWPC meeting is scheduled for Monday, September 12, 8:30-12:00 noon, at ERC, RTP, Classroom #1. The subject: "How to Perform Effectively as the Federal Women's Program Coordinator."

Last minute announcement--Mae is planning a trip to RTP in either September or October.

Tennis, Anyone?

Recently the editors of the Cleaner Times sent out a memo inquiring about EPA employees who play tennis. We never realized we had so many budding Jimmy Conners and Chris Everts at EPA. It seems we have two real champions in our midst, Carole Sawicki and Harold Sauls.

Carole played on the Raleigh Racquet Club Tennis Team which won the Spring title of the Eastern Carolina Tennis League Division I. She won the singles tournament in Wake County in the North Carolina Heart Association competition and the doubles tournament in that same competition with her partner Dottie DuBose. They defeated the #1 seeded team which has been ranked by the U.S. Tennis Association as the #1 women's doubles team in North Carolina. Carole also won the doubles tournament in Region 7 and at the Raleigh Racquet Club with partners Dottie DuBose and Mary Lou Axberg. She won the singles tournament at the Raleigh Racquet Club by defeating the #1 seed. She and partner, Mary Lou Axberg, also won the doubles contest in the Raleigh, B tennis tournament. In all Carole has won seven tournaments this summer. She's going to need an addition to her house to hold all her trophies.

Harold was a semifinalist in the singles competition in the Greensboro Senior Invitational this past April and a runner-up in the singles competition in the Pinehurst Senior Invitational in May. He served as captain of the N.C. team in the annual N.C. vs. Virginia Senior Men's match in Greensboro which North Carolina won. He won the 45 years and over doubles in the Raleigh Tennis Foundation Tournament in June. In September Harold plans to play in the State Seniors Championships in Winston-Salem and Charlotte.

Personnel Corner — ? ? ? Most Asked Questions ? ? ?

Norman Eubanks, Career Development Counselor in the Personnel Management Division, lists questions that are asked repeatedly:

Q. To whom does my personnel file belong?
A. Your official personnel folder belongs to the U.S. Civil Service Commission, not EPA, nor to the employee.

Q. Can I ask for a desk audit?
A. Yes you can, whenever you feel that your position description is outdated or your job performance is different than your position description. It should be noted that an audit can result in a downgrade as well as upgrade.

Q. When may I review my personnel folder?
A. Anytime you want during normal duty hours with proper identification and an appointment.

Q. Can I read information about my job series and grade in the various personnel manuals?
A. Yes, during normal duty hours with an appointment.

Q. How can I be reclassified?
A. Classification is a joint effort between the supervisor, the employee, and your Personnel Management Specialist. Classification should first be discussed between supervisor and employee.

Q. How can I find out what jobs are open at EPA/RTP?
A. By calling 541-3129.

Q. How can a technician become a professional?
A. Different occupational fields require different specified training and/or college curriculum. For your specific questions, contact your Personnel Management Specialist or your Personnel Staffing Specialist.

Q. Who can I call about career development?
A. Call 541-3014 and arrange for an appointment with Norman Eubanks, Career Development Counselor.

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Elaine Hyman . . . . . Reporter

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Speaking Engagements

Arthur Coleman, ESRL/RTP, will chair a session on Monitoring and Photochemistry of Halogenated Air Pollutants at the American Chemical Society Meeting, August 30-September 1, in Chicago, Illinois.

Robert Stevens, ESRL/RTP, will attend an International Symposium on Sulfur in the Atmosphere, September 7-14, in Dubrovnik, Yugoslavia. Mr. Stevens will present a paper entitled, "Sampling and Analysis of Atmospheric Sulfates and Related Species.

Charles W. Lewis, ESRL/RTP, will present a paper at the 10th Aerosol Technology Meeting, September 25-29, in Albuquerque, New Mexico.

Ed Vincent, ESED/OAQPS, will be the luncheon speaker for the Flat Line Board Finishing Workshop sponsored by the Society of Manufacturing Engineers, Tuesday, September 20, at the Radisson Plaza Hotel, Charlotte, N.C. He will discuss "Regional Air Quality Control Regulations - Current and Proposed."

Dr. Thomas Wagner, HERL/RTP, will give an overview of EPA/N.C. to the Chapel Hill Civitan Club, October 4, at the Country Squire, Chapel Hill, N.C.

Dr. Ronald Bradow, ESRL/RTP, will address the Durham Civitan Club September 15 at the Downtowner Motor Inn. His subject is the effects of auto emissions on public health.

On November 17 William Rhodes, IERL/RTP, will attend the 70th annual AIChE meeting in New York and will discuss Solid Wastes from Synthetic Fuels from Coal Technologies.

Robert Hall, IERL/RTP, will present the Application of Staged Combustion and FGR to Industrial Boilers at the 1977 ASME Winter Annual Meeting in Atlanta, Georgia, November 29.

Dennis Drehmel, IERL/RTP, will Chair the 2nd Symposium on Fabric Filters for Particulate Control in Tucson, Arizona, December 6-7.

Max Samfield, IERL/RTP, is the co-author of "Application of High Temperature Hyperfiltration to Unit Textile Processes for Direct Recycle." He will present at the Conference on Membrane Desalination and Waste Water Treatment in Israel on December 18-22.

Information on Solar Energy

Another toll free number if you are seeking answers to questions on solar energy. Call the National Solar Heating and Cooling Information Center at (800) 523-2929.

What Will Life in Energy-Short United States Be Like?

By Mike Shanahan
Associated Press

Americans could find themselves bathing in form-fitting bathtubs in the near future as the nation seeks ways to conserve its dwindling energy supply, three energy experts say.

Supermarkets and throw-away packages may disappear. Houses and cars will be smaller, the experts say.

These were some of the ideas three energy conservationists predicted for the future as the nation becomes energy conscious.

When the changes will occur and whether they will be voluntary or by government decree, is less clear, they said in interviews.

"There are three things that Americans do to waste more energy than any other people on earth," said Dr. Bruce Hannon of the University of Illinois. "They eat big steaks, drive big cars, and live in big houses. All of that must change."

Hannon, University of Illinois researcher Seichi Konzo, and John G. Muller of the Federal Energy Administration said insulation of homes probably will be the first major step to save energy.

Standard attic insulation may be 12 inches thick instead of six. Windows may have three panes of glass instead of one or two, holding more heat inside the house.

New houses will likely be smaller, they say. Each room will have its own thermostat. Older houses may be divided into multi-family dwellings.

Supermarkets may be abolished, replaced by computerized food warehouses. Consumers would telephone orders to a clerk and deliveries would be made door-to-door by a regularly scheduled truck eliminating the need to drive to a supermarket. "The end of the supermarket would also mean an end to impulse buying and that in itself is an energy saver," said Hannon.

Americans may be forced to eat locally produced products which can be delivered inexpensively.

Nonperishable foods may come in standardized returnable glass containers. "Your cookies will probably come in a returnable jar," said Muller.

To save energy used to heat water, the experts say, bathtubs would be designed to the approximate contour of the body to help reduce waste. Hot water for washing clothes would be forbidden, or at least frowned upon. "The new cold water detergents are already better," said Muller.

Power boat and auto racing may be forbidden on grounds the activities waste fuel.

Regarding family life, Hannon said, "The long run solution is pretty predictable. The society will be spread out into small communities. There will be people under the same roof who are not of the same immediate family."

(Continued on page 8)

Your Life and Your Health

Astounding as it may sound, many people show more concern for their automobiles than they do for their own health!

When have YOU had a checkup? That regular health checkup can identify apparent or potential health problems.

A simple test, like many offered in our Federal Health Unit, could provide that margin between life and...?

A full-time nurse, Mildred Scott, and Dr. Woodall Stopford are on duty in our local health unit to help you.

They handle on-the-job-illness--assisting management to evaluate the individuals' physical and emotional health problems in relation to efficient work performance. They also act as a referral service to assure adequate medical care and rehabilitation of the occupationally ill and injured.

In practical terms, this means that Federal employee occupational health units provide screening programs for such conditions as diabetes, glaucoma, hypertension, cancer, etc.; immunizations against such health threats as influenza; health counseling and referral to private physician or dentist as needed; and, in many cases, complete physical examinations--all on a voluntary basis.

The most comprehensive physical examination is the Employee Health Maintenance Examination (EHME). This exam is offered periodically to employees at age 40 and over. Each exam routinely includes the following: 1) Tonometry for the detection of glaucoma; 2) pelvic examination and pap test for all women; 3) proctosigmoidoscopy; 4) EKG; 5) chest X-ray; 6) urinalysis; and 7) blood tests.

Any positive findings in the course of the EHME are presented to the employee in a conference with the medical officer in charge of the health unit. If the employee wishes, the results of the examination may be forwarded to the family physician.

The confidentiality of the patient-physician relationship, sacred to the practice of all medicine, is respected in the health unit. Files on any patient are strictly confidential.

None of us are so busy that we can afford to gamble with our lives. A check up in time has saved several co-workers. What about YOU? Ms. Scott is just a phone call away, extension 2101, Room B-100 in the ERC facility.

Energy Conservation

In keeping with the President's stated policy in a nationwide broadcast on energy conservation, we asked the following questions: Are you in agreement with the President's policy? What are your ideas for conserving energy? Here are some of the answers.

Judith Valentine, IERL

"I agree with the President's determination that there is a world-wide energy crisis - now. And, I recognize that in a crisis one individual must serve an organizing/motivating function. Major networks and environmental experts have been talking 'energy crisis' for almost ten years, and only this year has our country decided to do something. I doubt that all the President's initiatives will prove appropriate, but he is taking action. At the very least, he will trigger some realistic thought about whether we Americans will opt for our individual comforts, or adjust our goals toward ensuring the survival of future generations.

"What can we do to conserve energy? I think our convenience-oriented way of life has reached its apex. We will need to give up many creature comforts (household gadgets and the like) and return to expending more physical effort. Our bodies were muscled to work, and few of us are using those muscles to their capacity. I think our society will need to slow its pell-mell rush toward 'progress' and discard the Gross National Product as a measure of what we're accomplishing. We need to return to a more stable way of life in which families stop 'globe-hopping' for career progression, and in which needed services can be found locally instead of being widely sought. I don't see the above as negative goals. I believe we would all benefit from a return to a more manageable pace. Perhaps the ultimate benefit to be gained from a sensible energy conservation policy might be to relieve us all of the burden of being a nation of uptight, neurotic clock watchers."

Bobby Daniel, IERL

"Like most Americans I agree with the President that a national energy conservation policy should be adopted. Also like most Americans I don't have any simple solution to this complex problem. In my opinion one area would be in developing a mass transportation system in and around our larger cities. This system would have to be efficient, convenient, cost competitive, and pollution free. During a recent visit to Disneyworld I rode on the 'people mover' and it appeared to me that this type of conveyance would be a major step in the right direction."

Eddie Kantor, HERL

"President Carter's energy conservation plan, though a step in the right direction, falls very short in what is really needed if the energy situation is as serious as he has stated. We need mandatory gas rationing to prevent rapid depletion of our oil reserves and to cut back on importing 51% of our petroleum. We need a crash program in production of plutonium breeder reactors. Carter's decision to stop their development will be regarded as a tragic, short sighted, mistake, and will hasten an impending energy catastrophe in the latter part of the century. We need strong leadership capable of making unpopular energy conservation decisions."

Peter Gabele, ESRL

"With regard to the President's energy policy, I agree with him that action over a fairly broad front is required, and I appreciate the initiative which he has taken. Although many aspects of his proposed policy are subject to debate and alteration, there appears to exist the basics from which a comprehensive plan can evolve. The only aspect of his policy I wish to comment on is the so called 'gas guzzler' tax provision. Setting uniform fuel economy standards applicable to all vehicles would be more consistent with the idea of conserving--rather than taxing energy use. Futhermore, it would clearly shift the problem from the politician to the engineer who is in a better position to solve it."

Betty Abramson, MDAD

"In my opinion, President Carter's energy conservation policy is inadequate. As one alternative I would set a policy stating that all passenger cars sold in the USA would meet an EPA miles per gallon minimum standard. I would actively try to change the behavioral pattern of most Americans which in the past has been to take our natural resources for granted. Our new concept would be 'waste not, want not.' We would rediscover an ancient, seldom used form of energy called shoe leather. Also with this trend in mind, we would ask ourselves each time we touched our thermostats, 'Is this click really necessary?'"

Shirley Tabler, OAQPS

"I am in complete agreement with Mr. Carter's program for energy conservation. I think if the American people are fully aware of the seriousness of the situation that we will seriously begin to take measures at home and at work to save energy and money. I think Mr. Carter's ideas for conserving energy are good. I cannot really add anything, except that I plan to use less air conditioning this summer and cut down on the use of my auto."

Vincent Uhl, IERL

"I concur in Mr. Carter's apprehension of our limited, cheap, available, safe energy resources. The energy conservation measures which he recommends are much too mild to cope with this long range problem, but they are politically expedient.

"Our cheap energy has been a curse in disguise. It has led us to comforts, many trivial, others physically debilitating. It has encouraged urban sprawl which is now being recognized as creating serious problems with public services, land abuse, water supply. It is the basis for an industrial civilization that requires economic growth for its prosperity. In my mind this is the critical issue--how to maintain the well-being of our society along with economic regression which I believe will inevitably result from more costly and dwindling energy resources.

"Our energy resources have been a gift which our society has been squandering. They are not replaceable. Science and technology cannot just create more. Solar sources are limited by high investment and inconvenience, and nuclear sources may prove too risky.

"Conservation of energy requires radical changes in our way of living. What will most likely happen is that we will accommodate abruptly after fossil energy is used up. In any case it will inevitably require a return to some practices that were familiar to our grandparents. It is encouraging to see national leadership with some comprehension of the issue--a definite policy and recommended measures.

"Ordinarily I am an optimist!"

EPA Employee Awarded PHS Plaque

Walter Barber (left) and Chuck Mann (right).

Walter Barber, Director, OAQPS, presented a Public Health Service Plaque to Charles O. (Chuck) Mann in an informal ceremony July 6. Chuck was awarded the plaque in recognition of outstanding performance, personal dedication, and broad understanding of the policies and scientific knowledge required to manage EPA's National Emissions Data System (NEDS).

Chuck, an environmental engineer, NADB/MDAD, and a commissioned officer in the U.S. Public Health Service, has been involved with NEDS since 1975 when a massive program to enforce the system was deemed essential by EPA management. He was assigned the responsibility of managing this complex program and coordinating the concurrent activities of contractors, engineers, computer specialists, and program analysts.

Chuck accepted this difficult task and quickly grasped the complexities of the assignment, displaying outstanding ability in successfully accomplishing all milestone objectives. He worked closely with upper management and Agency personnel where his in-depth knowledge of the NEDS system and of EPA's data needs were invaluable.

A native of Missoula, Montana, Chuck now resides in Raleigh, N.C. He has been employed by EPA since 1971.

(What Will Life...cont'd from page 6)

"And there will certainly be less travel," he said. Besides using more buses and other forms of mass transport, Americans will drive small, efficient diesel-powered autos or electrically-powered vehicles.

Asked if all these changes are practical, Muller replied, "If the situation gets bad enough, and it will, everything is practical."

Conferences

The 29th annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy will convene during the week of February 27 to March 3, 1978, at the Cleveland Convention Center, Cleveland, Ohio. A call for papers has been announced. Final date for submission of abstracts is August 29, 1977. Contact: Robert W. Baudoux, United States Steel Corporation, Research Laboratory, MS 57, Monroeville, Pa. 15146.

The Institute of Environmental Sciences will hold its 24th Annual Technical Meeting and Equipment Exposition at the Sheraton Hotel, Fort Worth, Texas, April 17-20, 1978. High technology sessions include: Environmental Pollution and Environmental Impact Statements; Combined Environment and Reliability Testing; Noise; IES/EPA; and Energy Availability--Use and Control. Deadline for submission of abstracts is September 16, 1977.

This is the first announcement and call for papers of the 4th International Symposium on Contamination Control which will be held at the Capital Hilton Hotel, Washington, D.C., September 10-14, 1978. Abstracts are due by November 1, 1977.

The Environmental Protection Agency in cooperation with the U.S. Department of Commerce, state manufacturing associations, and Chambers of Commerce, is sponsoring a conference on Industrial Initiatives in Pollution Control, September 8-9, at the DuPont Plaza, Dallas, Texas. This unique conference will bring together members of Congress, executives from leading corporations and top federal, state and local government officials to discuss a variety of new and important pollution control issues and technologies.

The Interagency Motor Equipment Advisory Committee of the Southeast will hold its Annual Conference, October 26-28, at the Sheraton Inn, Mobile, Alabama. The program will feature presentations by experts in energy use and conservation and the management and operation of motor vehicle fleets.

QUALITY INCREASES - JULY 1977

Susan F. Sharpe - IERL	Herschel W. Rorex - OAQPS
Kenneth T. Knapp - ESRL	Walter M. Kozel - HERL
John E. Frazer - EMSL	Merritt D. Long - HERL
Dempsey B. Ray, Jr. - EMSL	Fisher A. Fair - OA/CMD

CONTINUED SUPERIOR PERFORMANCE

Belinda Y. Lee - OAQPS

(Fluorocarbon...cont'd from page 3)

A 5 percent decrease in ozone would mean an extra 16.5 cases of skin cancer per 100,000 people.

Both FDA and EPA regulations on nonessential fluorocarbon use now are open for public comment, and EPA will hold public hearings in August. The proposed regulations would end about 60 percent of fluorocarbon emissions in the U.S. The remaining 40 percent is used in closed systems such as refrigerators and in "essential" uses such as inhalation devices used by asthma sufferers.

Public's Environmental Pulse - Slower But Steady

Although public concern about the seriousness of pollution appears to be decreasing, a new poll by Opinion Research Corporation shows that most people will accept nothing less than "an environment that is healthful and aesthetically pleasing."

Slightly more than one half of those surveyed believe air pollution to be "serious," while nearly two-thirds regard water pollution as a continuing threat.

However, the study shows that since 1970, the level of concern has dropped from 69 to 51 percent for air pollution and from 74 to 59 percent for water pollution. Additionally, the decrease in concern comes from those who originally appraised air and water pollution as "very serious."

Those persons interviewed in urban areas and the northeastern United States show a significantly higher concern on both issues. In the West, the emphasis is strongly on the nondeterioration of areas where air quality surpasses federal standards.

Across the country, 53 percent of those surveyed favored strict rules to prevent deterioration.

The public sees industry as having done a great deal to combat air and water pollution, but still regards it as the chief polluter. Some 64 percent saw industry as making a "great deal or fair amount" of progress over the past five years in air pollution, and 58 percent saw it the same way for water pollution.

Of 13 industries listed as possible pollution sources, steel, chemical, oil and rubber were named most often.

Exhaust from autos, municipal incinerators and electric power plants received less blame for air pollution. But, people are beginning to look to municipal sewerages and to themselves as sources of water pollution.

Cost is seen as the dominant factor influencing implementation of environmental control, as opposed to technological difficulties.

But, two-thirds appeared willing to bear the increase for a cleaner environment. This trend has increased over the past two years despite economic problems.

Regardless of their desire for environmental controls, people favor a certain flexibility in enforcement. Fifty-eight percent support setting standards on a case-by-case basis rather than applying blanket regulations on all industries and communities.

In response to a straight tradeoff between industrial growth and reducing pollution, more people favored growth--by about one and one-half to one. But not, the survey maintains, in formerly unpolluted areas.

A majority of people believe that a high level of environmental quality must be accomplished regardless of cost. At the same time, most people do not consider a completely pollution-free environment necessary.

(Reprinted from Chemecology)

Ponder and Jones Are Expert Witnesses

Recently Wade Ponder and Julian Jones, IERL/RTP, appeared as expert witnesses in the case of the United States of America vs. Public Service of Indiana (PSI) in U.S. District Court in Indianapolis.

PSI has constructed a 650MW coal-fired power plant with no provision for SO_2 emission control. When (and if) the plant starts up in January 1978, it will violate new source performance standards by a factor of 5! EPA brought suit to prevent start-up, and Wade and Julian were called to testify. Wade's testimony was to establish the availability/viability of flue gas desulfurization for SO_2 emission control and Julian's was concerning sludge disposal practices.

Court's decision is expected October 1st.

Credit Corner

by Jerry C. Husketh

Have you been by the Credit Union office lately only to find four mad ladies trying to outsmart a typewriter? Actually it's an on-line computer terminal that is supposed to give ultra-accurate, super-quick service to customers, but the operators call it something else. Bear with them though, anyone that can balance an income statement can master a machine.

Some new goodies, besides improved service, are on the way. Second quarter shares dividend will once again be 6.25%. That is five quarters in a row, so give our credit union staff another hand for making us money and keeping down expenses.

Second mortgage loans are now available for those homeowners who qualify and want to make major improvements to their property. Stop by today for more information and pick up a new booklet while you are there.

(EPA's Fuels...cont'd from page 1)

Jungers explained that one of the major items in the fuels program, which is regulated by law, is to analyze unleaded gasoline for lead and phosphorous content. "Since lead and phosphorous in unleaded gasoline destroys the effectiveness of the catalytic converter, it is essential that federal limits are not exceeded."

"Gasoline samples are collected at your local service station by EPA's Regional Office staff located in ten areas scattered around the country," Jungers continued. "The lead content is analyzed in each Region; however, 10 percent of the samples are sent back to our Branch as a quality control check on the lead analysis procedure."

Jungers explained that in the early days of the unleaded gasoline program, the Source Fuels Branch was instrumental in training field inspectors in the sampling and analysis of unleaded gasoline. "We also contributed to the development of a simple and accurate test for detecting lead in the field," Jungers related. "This test was important so that field inspectors could accurately and safely analyze the gasoline at the service station."

Jungers emphasized the importance of the quality control aspect of the fuel test program since this information is used to implement enforcement activities by EPA's Washington Mobile Source Enforcement Division. Since 1974 approximately 100,000 samples of gasoline have been analyzed. The program has been successful so far since lead and phosphorous free gasoline is widely available and few violations have occurred. In the event gasoline samples were found to contain higher levels of lead or phosphorous, then a wider surveillance of gas stations would be necessary. The program is also important since detection of trace metals, toxic substances and other pollutants, such as sulfur, assists scientists when it comes to studying the actual emissions from cars and trucks along with pinpointing possible adverse health effects from these emissions.

Lead alkyls in gasoline increase the octane number which, in turn, decreases engine spark knock. With the lead phase-down, gasoline manufacturers have considered and, in some cases, have added aromatic hydrocarbons as an octane improver. Aromatic hydrocarbons are potential carcinogens, so constant surveillance is an important part of the program.

Jungers went on to explain that EMSL is the only EPA laboratory in the country which has the ability to analyze the phosphorous in fuels. "Consequently, we test upward of 20% of the samples." The laboratory analyzes over 1,000 samples every year and runs about five to six tests on each sample.

"Over 100 billion gallons of gasoline are used annually, so analysis of fuels and fuel additives is an important part of EPA's program to alert scientists for potentially dangerous emissions which in turn can have possible adverse health effects," concluded Jungers.

Attention Bowlers!

The Bowling season is almost here. The EPA After Hours League will begin bowling at Fair Lanes (in Cary) the first week in September. If you have a team you would like to enter into the league or if you would like to join a team, call Kay Williams at 541-2775 or Bill Barnard at 541-3123.

The Research Triangle Federal Employees Association (RTFEA) Bowling League met August 31 at Fairlanes on the Durham-Chapel Hill Boulevard to form teams. The first night of bowling will be September 7, at 6:30 p.m. For further information, contact: Jim Montgomery, ext. 2515, Frank Sims, 682-5012, or Lucy Flagler, ext. 2341.

(MacQueens...cont'd from page 1)

ton, about 100 percent higher than for deep-mined coal, MacQueen said. "It's now a little more stable," he said, "But it's still subject to that situation because the deep mines they (utility companies) could contract with for long term delivery are not in place."

Although Mrs. MacQueen considers the bill which was passed to be a "watered-down version," she feels the enactment is a beginning.

As for their White House visit: "When I got the letter, the return address said the White House, I thought someone was pulling my leg," she said.

The MacQueens shook hands with President Carter and rubbed shoulders with people as diverse as entertainer Arthur Godfrey, lawmakers Morris Udall and Frank Church and West Virginia Governor Jay Rockefeller.

What was Jimmy Carter like? "Charming," Mrs. MacQueen answered. "He is very warm, he comes across in person, just like he does on TV. It was a great thrill for us." Reprinted from the Cary News.

Air Pollution Literature is Accessible - So Let's Use It!

A librarian in the mid-west wants to know how much salt is in oceanside air.

A man from Corning, New York, noticed there was less noise pollution when there were jet contrails in the sky and wondered why.

Do burping cattle contribute to the air pollution problem?

Who gets these requests and questions? The Tech Center's library. And answers are often provided through use of a computerized search of the Air Pollution Technical Information Center (APTIC) bibliographic file. The APTIC file may now be searched quickly by the library, using a terminal connected to Lockheed's international bibliographic search system. Many other bibliographic files can be searched as well.

Pete Halpin, of the Manpower and Technical Information Branch, OAQPS, who is in charge of building and maintaining the APTIC file on-line recalls that the file was started in 1966 and continues to be the file to search for information about air pollution. It is a unique air pollution data base--the most complete in the world--a truly international system.

By 1971, the APTIC file was growing at the rate of 1,000 selected entries a month. There are now over 80,000 citations and abstracts recorded in the system. However, over the years other systems became economical and OAQPS recently revised its technical information services to avoid duplication. Currently the APTIC file is updated with 200 to 350 selected items each month.

The APTIC file has the most comprehensive inventory of air pollution information in the country according to John Knight, Information Specialist. "It includes an unusually good inventory of literature from Japan along with conferences and preprints of articles in advance of their more formal entry into the literature," John reports.

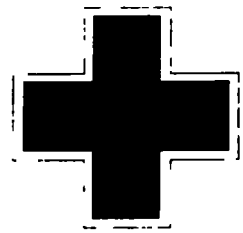
So, you have a burning question. How do you get the answer? That's where your indispensable library force comes to the fore. "It depends on the questions you ask which data bases we go to," says John. "Usually a search of from three to five on-line bibliographic files will turn up the answers," he continued. The Library relies primarily on such basic sources as Chem Abstracts, Biological Abstracts, Engineering Index, and, of course, APTIC.

The library serves EPA Personnel and other governmental agencies--state, local and foreign--along with current contractors and non-profit environmental groups and citizen groups, all serviced without charge. Other requestors are referred to the Lockheed Information Service where the APTIC file is housed and to other relevant information systems. So, if you have a question or you wonder what information there is in the literature on a subject you're pondering, call the library at extension 2777.

How were the cows and contrails questions answered? A literature search turned up several articles about hydrocarbon emissions originating in cattle rumen, EPA documents on mechanical saltwater cooling devices answered the librarian's question; and a referral to a meteorologist turned up the information that the type of airplane and the particular meteorological conditions would make variations in noise levels.

The world of science revolves around trying to define uncertainties, and, in the meantime, the library continues fielding questions like the one from a businessman who wanted emission regulations established for Bar-B-Q pits, or the environmental consultant who wanted to know the health hazards associated with lead emissions in indoor firing ranges, or.....

(Editor's note. Our thanks to Alberta Smith, former Air Pollution Information Service Supervisor, for the list of questions. She reports that most requests are for documents and people are usually surprised and grateful for the assistance.)



Attention Donors!

our good neighbor

The summer brings sun, fun, and relaxation for many of us but it can create problems in meeting monthly blood quotas when so many are on vacation. While vacations are important, so are saving lives. Since vacations are planned ahead, why not plan ahead to give blood on one of the dates listed:

August 26, 1977
September 9, 1977
September 30, 1977
October 7, 1977
October 21, 1977

Thanks in advance. Elaine Hyman, your local blood recruiter.

THE CLEANER TIMES READERSHIP SURVEY

SOUND OFF! Here's your chance to make THE CLEANER TIMES a better publication. What changes would you make if you were the editor?

1. How much of each issue of "The Cleaner Times" do you read?
   _____ all of it when time permits
   _____ a story here and there
   _____ none of it
2. Do you think "The Cleaner Times" should cover
   _____ more employee news
   _____ less employee news
   _____ stay the same
   _____ don't know
3. The quality of writing is
   _____ easy to understand
   _____ usually easy to understand although some of the more technical subjects lose me
   _____ difficult to understand
4. Do you like the appearance of "The Cleaner Times?"
   _____ yes
   _____ no opinion
   _____ no, and here's why _____
5. Which of the following features do you read regularly?
   _____ person-to-person
   _____ other stories about employees
   _____ personnel corner
   _____ stories about research and EPA programs
   _____ profiles
   _____ conferences
   _____ speaking engagements
   _____ other (please specify) _____
6. Check the following subjects you would like to see covered in future issues.
   _____ important research developments
   _____ new equipment
   _____ safety and health
   _____ employee benefits (retirement, insurance, etc.)
   _____ national legislation affecting EPA and the environment
   _____ important news about EPA Divisions, regions, research centers
   _____ training opportunities
   _____ other (please give suggestions) _____
7. Please check where you work.
   _____ OA _____ OAQPS _____ HERL _____ EMSL _____ IERL _____ ESRL _____ Other
8. Sex: _____ male _____ female
9. Age: _____ Under 20 _____ 31-41
   _____ 21-31 _____ over 40
10. Years with EPA: _____
11. Education: years completed _____
12. Do you have subjects or story ideas that you would like to have covered in "The Cleaner Times?" If so, please write them down in the space below.

Please return to Public Affairs, MD-31, and THANK YOU!