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There's a new single-piece, slab-steel rear frame, for example, that offers exceptional accessibility to the engine and other major components. This simplifies maintenance, provides better load distribution, and dramatically improves digging traction.

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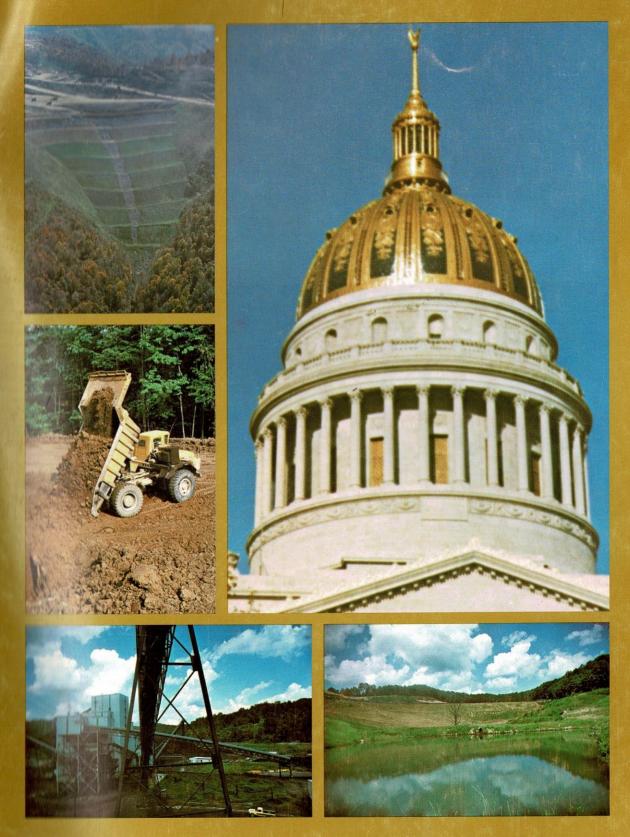
To get the full story about the new Dart 600C front-end loader—and about how Dart intends to maintain its well-earned leadership position in a competitive industry—call 816/483-7679 today. And let's get things started!



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Spring 1980 Green



Green Lands

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It's all relative

Every day it's said that everything is relative, and so it is. There could be no better example of this than the idea that an entity which is measured in light years could be referred to as the "Little Dipper."

It is with such a feeling of relative approval that the coal industry greets the enactment of a new West Virginia mining and reclamation law, designed to allow state government to retain regulatory primacy within its own borders.

Members of the Legislature, and representatives of all vested interests, hammered out such a bill. Within the structures of federal regulation, they came up with a law that should serve the balanced best interest of West Virginia. To the credit of the full Legislature, that body gave its near unamimous approval.

Industry and labor, which saw absolutely eye-to-eye on this matter, are now bound to accept as law, many unpalatable principles. This was necessary to federal approval of the West Virginia program.

Fortunately, there is no indication that the Office of Surface Mining really wants to be the principal regulator in West Virginia. The federal people seem to recognize that scenario for the logistic and bureaucratic nightmare that it would be. Given that, there is real reason to hope that OSM would hand back the reins of power as quickly and efficiently as possible.

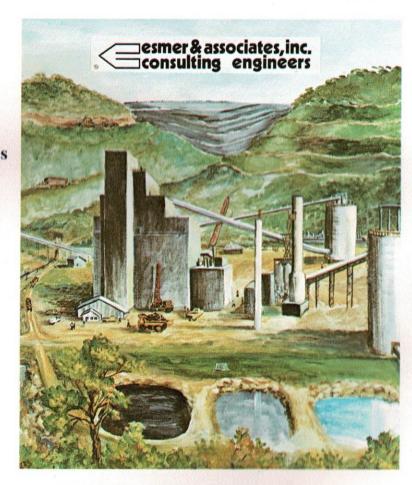
The other university

West Virginia has a "university" of which few are aware. It boasts an enrollment of 11,000, yet offers students the small college atmosphere of nine separate campuses and curricula. The "university of which we speak is, in fact, a group of colleges, privately funded, and joined under the banner of The West Virginia Foundation for Independent Colleges.

A year ago, in this space, we urged our membership to consider contributing to this worthy cause. The response was gratifying. This spring, we renew that request, because the need continues.

The special relationship we have to private colleges was best articulated by Milton Eisenhower, who said, "One needs money to produce educated people, the other needs educated people to produce money.' Contributions may be sent to The West Virginia Foundation for Independent Colleges, P.O. Box 8276, South Charleston, West Virginia, 25303.

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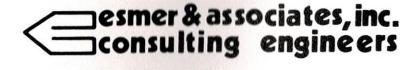
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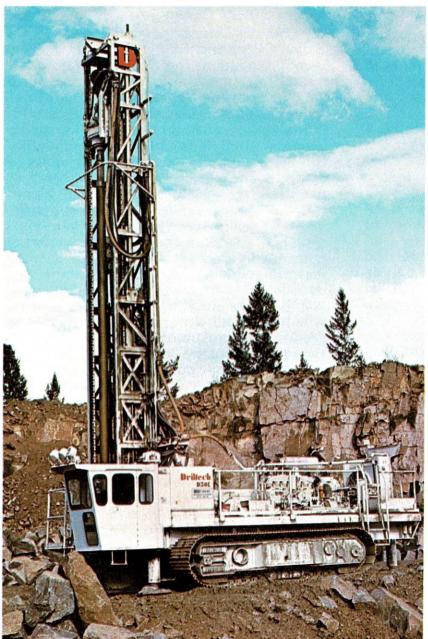
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Legislature moves state

Eleventh hour action by the West Virginia Legislature during the past session may have been one of those rare human endeavors which pleased everyone.

On the last scheduled day of the session, by a unanimous vote of 99-0, the House of Delegates passed the amended version to the Senate-approved Committee Substitute for HB-1529, otherwise known as "the surface mining bill."

In adding its approval to an earlier 30-4 Senate endorsement, the House sent to the governor a bill which should enable West Virginia's regulatory program to come into line with federal requirements.

Naturally, the measure of compromise necessary to such an accomplishment entails the less than total pleasure of everyone, but all parties concerned expressed general approval of the bill, as well as a sense of relief that a federal takeover of the state's regulatory program seems likely to have been averted.

The feeling of relief would presumably extend to the Department of Interior's Office of Surface Mining (OSM) which has expressed a desire for at least the big coal states to assume primary enforcement authority.

While passage of enabling legislation removes a big hurdle from the path to West Virginia's regulatory primacy, there is much to be accomplished before the State's Department of Natural Resources assumes complete command.

With the new law in hand, DNR must supplement its broad powers with regulations, which must be approved by the State Legislature's Legislative Rule-Making Review Committee. This done, the agency must submit the entire regulatory package, law, regulations, and the myriad details of implementation, to the Department of the Interior.

The package goes first to the Director of OSM's Region I, in Charleston, W. Va. The Director will then send the proposal to the Secretary of the Interior, along with his recommendation. The Secretary holds final authority to approve or disapprove, and to "suggest" specific changes.

Final deadline June 15

The present final deadline for West Virginia, and other states, to submit its complete proposal is June 15. The State turned over a partial package on March 3, to meet that federal deadline.

Following receipt of the proposed state program, the Secretary will approve or disapprove within six months. This is currently interpreted as September 3, or six months following the March 3 submission deadline.

If the State program is not approved, DNR will have until November 3 to modify its proposal and resubmit. A final ruling must then come from the Secretary by January 3, 1981. At that point the State will presumably win primacy, or suffer the onslaught of full federal implementation.

In West Virginia, the remote possibility of federal primacy over the permanent program is secondary to the larger question of how much and what sort of change will be necessary to the state's widely recognized in-the-field regulation. In the three years since enactment of the Surface Mine Control and Reclamation Act. officials of OSM and DNR have often been at odds over what is best for West Virginia's environment, not to mention its coal industry. In recent months however, the agencies have been noticably more coordinated.

primacy bid forward

Now West Virginia has a mining and reclamation law which duplicates its federal counterpart in all performance standards. The new law also follows Washington's wishes with regard to "citizens" participation in the permitting and inspection processes.

Painful provisions

These provisions, however painful to the industry, will at least maximize chances for DNR's proposal to receive an early blessing from the federal people. That momentous occasion would entail a side effect which should also please everyone who cares. When DNR becomes the primary regulatory authority, it will also assume control of an abandoned mine lands fund that now exceeds \$15 million.

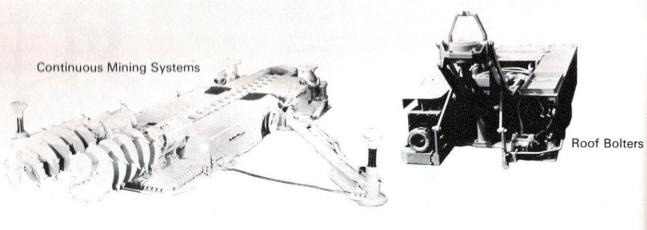
This money, collected since October 1, 1977, at the rate of 35¢ per ton for surface mine production and 15¢ per ton for underground, is presently being held in escrow for use in West Virginia by West Virginians. The current sum of \$15 million represents half of total collections from the West Virginia industry. The other half will be retained by the federal agency to fund the Small Operators Assistance Program (SOAP), the Rural Abandoned Minelands Program (RAMP), and other special projects.

While deadlines for state submission and federal response are set by law, it is impractical to project specific dates for these actions. Currently, the process is running seven months behind the timetable specified by the original legislation, the Surface Mine Control and Reclamation Act of 1977.

Only three states, including none of the traditional production powers, have elected to forego state primacy.



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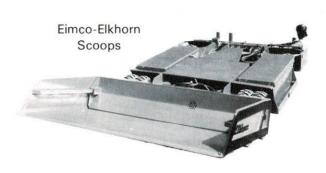




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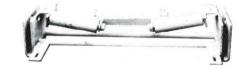


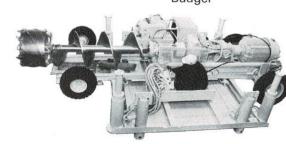
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DNR Director David Callaghan presents 1980 Reclamation Awards to Chick Lockard, Kelley Coal Co., Inc., and to

1980 reclamation awards highlight 7th symposium

In January the WVSMRA conducted its Seventh Annual Surface Mining Symposium, and in most respects, it was markedly similar to the previous two.

Like the fifth, sixth and technical meetings, the 1980 session was packed to capacity, and, for the third consecutive year, the overriding topic of concern was federal regulation of the industry.

The program directed specific attention to such areas as bonding, blasting certification, overburden properties, and hydrology.

Personnel from the West Virginia

Department of Natural Resources covered the State's new role in the permitting procedure, the surface effects of underground mining, and federally enacted programs for small operators assistance and abandoned land reclamation.

As has become customary, the two-day meeting was capped by the presentation of the 1980 Reclamation Awards. DNR Director David Callaghan did the honors again this year, recognizing 11 companies for the excellence of their work during 1979. Winners, along with the citations, appear on the following pages.



Richard Delatore, West Virginia Energy, Inc.



Joe Stromick, L.H.& J. Coal Co., Inc.

West Virginia Energy, Inc.

For outstanding reclamation accomplishment with extraordinary attention to regrading, revegetation, and regrading drainage control on operations in Brooke County.

L. H. & J. Coal Company, Inc.

For the responsible employment of comprehensive and practical preplans, outstanding cooperations, and exceptional reclamation on permit areas in Monongalia County.

Kelley Coal

Harrison County.

Company, Inc.



Pete Casella, Universal Coal Corp.

DLM Coal Corporation

For outstanding employment of the

Surface Mine Drainage Task Force's

recommended overburden handling

techniques in achieving and

maintaining exemplary water quality

and concurrent reclamation on

Surface Mining Permit 187-77,

Universal Coal Corporation

For achievement of outstanding reclamation on the recut of previously mined areas and for constant attention to the improvement of post mining land uses in Upshur County.



Don Shipman, DLM Coal Corp.



Joe Osborne, Brownie Stuart, and Jess Anderson, King Knob Coal Co., Inc.

King Knob Coal Company, Inc.

Special recognition for overall operational excellence and outstanding reclamation achievement on operations in Harrison and Monongalia Counties. Their consistent efforts to improve are routinely based on realistic preplans, characterized by improved land utility with emphasis on concurrent and continuing reclamation practices.

Oscar Vecellio, Inc.

For outstanding reclamation accomplishment in the complete rehabilitation of previously mined areas through the elimination of existing highwalls and the notable improvement of water quality in Raleigh County.



Oscar Vecellio, Jr., Oscar Vecellio, Inc.

Upshur County.



Pete Moran and Paul Moran, Chilcoal Corp. | Princess Beverly Coal Co.

Chilcoal Corporation/ **Princess Beverly Coal Company**

For demonstrating overall operational superiority through well planned overburden handling in the achievement of highwall elimination reclamation on previously mined areas in Greenbrier County. Operational drainage control utilizing existing topography is also notable.



Zeb Pendergrass, Jr., The Valley Camp Coal Co.



John Grant and Kenny McNulty, K.I.M. Coal Corp./ Taywood Mining Inc.

K.I.M. Coal Corporation/ Taywood Mining Inc.

For overall excellence and reclamation awareness during all phases of this "controlled placement" operation in the steep slopes of Mingo County. Extraordinary attention has been placed on haulageway and valley-fill consturction with emphasis on concurrent reclamation.

Freeman Branch **Mining Corporation**

For demonstrating excellence in preplanning and performance on this "ridge end removal" operation in McDowell County. Through outstanding reclamation achievement and innovative mining methods, several marks of previous mining have been totally eliminated.



Paul Hutchins, Freeman Branch Mining Corp.

The Valley Camp

For outstanding performance and

reclamation accomplishment in the

conduct of the "haulback/valley-fill"

operation on Kelley's Creek in

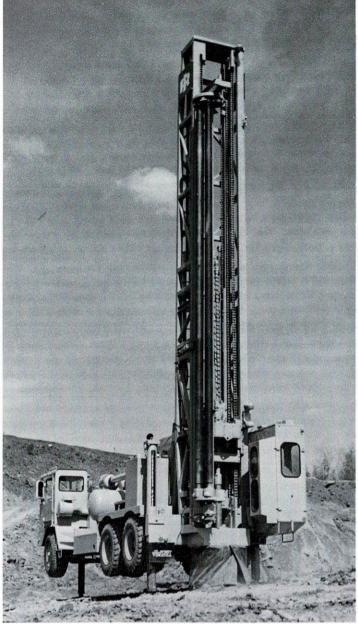
Kanawha County. Exceptional

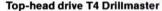
reclamation efforts in the successful

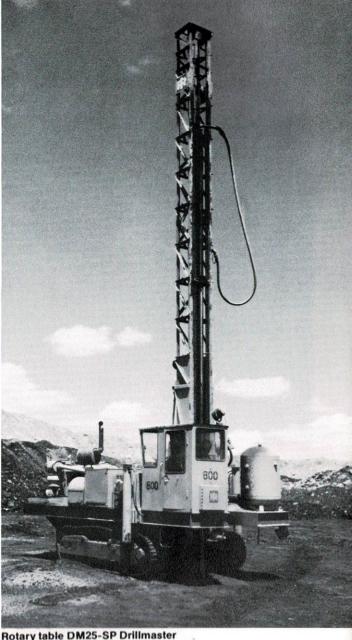
stabilization of previously mined

properties is also recognized.

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DM25-SP Drillmaster. A top-performer that makes short work of single-pass holes to 50' deep and 63/4" in diameter. Pulldown of 26,000 lb., rotary table speeds of 60-375 rpm, and compressor options to 600 cfm at 125 psig make this rig hard to beat. Features include strong, lightweight welded steel tower, simple mechanicaldrive table, and hydraulic propulsion with spring-applied brakes. Other Drillmaster sizes also available.

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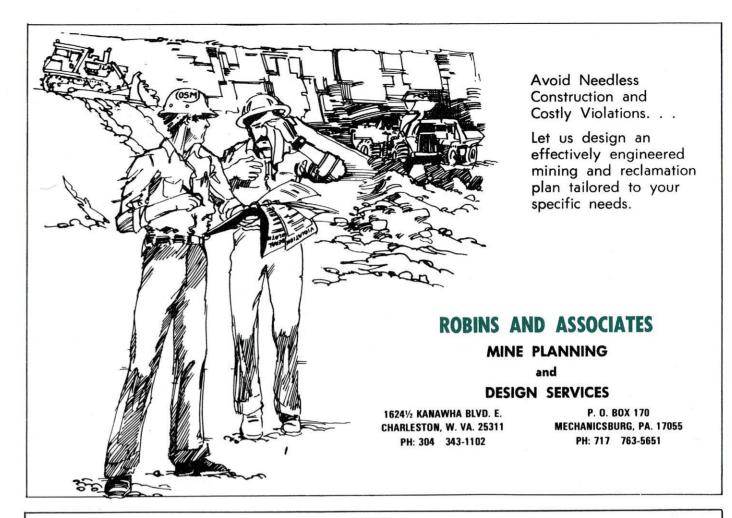




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Why the U. S. will not achieve energy self-sufficiency

by Dr. John J. McKetta The E. P. Schoch Professor of Chemical Engineering The University of Texas at Austin

I want to tell you a story. It's not a true story, but it's a story whose parallel all of us have witnessed before.

Our local high school had not lost a football game for at least three years. Friday was a big game with our arch rival. On Thursday, while our team was practicing, the debating team had a meeting about overemphasis on football. They were unhappy because most of the people go to football games; they don't come to hear the debaters. Most of these debaters weighed less than 100 pounds and most of them did not like football. Here are some of their discussions.

- a. Football is injuring too many players. To prevent this we are going to demand that our team members wear armour made of metal. Every man, no matter who the team plays, must wear metal
- b. Which is the best play—the touchdown or the first down? The argument went on for a long time. They finally decided that no play our team makes will count unless it attains a first down. If it isn't a first down, the other team gets the ball automatically.
- c. The forward pass is the biggest gamble in football. The national average is that one out of every 219 forward passes is an interception that goes for a touchdown. So, we will absolutely not permit our team to throw any forward passes.
- d. Fairness! In debate we are fair. The other side always gets an equal chance. We want fairness for football games too. In order that we are more fair than anybody else, we are going to demand that our opponents be told

what play we are running and where we are going to run it.

Well, the debating team went on to tell the principal about their demands. They argued with the principal and the principal argued back. But who is going to win an argument with the debating team? So the principal lost. The principal told the new rules to our coach the night before the game. The coach fainted. He was revived and then he argued. He lost the argument and was fired. The teacher of the debate team, Ms. Dogood, replaced the coach.

Now it's Friday afternoon. It is fourth quarter, two minutes left to play, and the game is almost over. We are behind a little: 98-0. All the students in the grandstand are asking "Why aren't our boys trying? What's going on? Can we win? Do we have any chance? Can we possibly win during this last two minutes?"

No way! No way! Even if you took all the restrictions off, our team cannot make 99 points in the last two minutes! The story is senseless. But I've seen it happen. Exactly that kind of story but in a different arenathe energy arena!

The debaters and the principal represent extremists who pressure legislators. The metal armour is the zero risk that some extremist groups are demanding in the United States. They want zero risk. They know it is impossible. But they are going to insist on it. The no-pass rule comes from Ralph Nader and other anti-nuclear people. They have eliminated one of our possible plays to win the game.

The best-play rule represents the extreme environmentalists, the anti-coal people, etc.

Telling the opponent each play, the fairness rule, and be-nice-to-the-people rule were used by the U.S. Congress and the Federal Power Commission to set a low fixed-price on energy.

There is no way to win the energy game! No way to have energy self-sufficiency or to decrease the high cost of imported energy during your lifetime. I predict that by 1985, even if the public forces government to remove all the senseless, inflexible regulations we now have, the United States is going to have horrible sacrifices energywise. But we have to try to force changes, or we will lose every game from now on. We could even lose the stadium, the school, everything. We must pass sensible rules

The energy story is a very complex one and cannot be told in its entirety in one lecture. It is well known that we are in a terrible energy mess, but only a few people realize that there is no solution during our lifetime. By this I mean that we will not have the luxurious use of energy during the next 35 to 40 years that we have today. Contrary to the accusations coming from Washington, there is no conspiracy unless there is a secret conspiracy between Congress and the Middle East. This country is in trouble. In the vernacular of a boxer, we have been hit hard on the chin, we are flat on our back, the count is up to 9, and the referee has both feet on our chest. We are just not going to make it.

Most of the people who understand the energy problem are disappointed, confused, and appalled with President Carter's socalled energy plan (instead, it was really a huge tax plan). They are also disappointed with the mysterious, seemingly anti-U.S. voting record of the U.S. Congress in energy policies. Current policies of energy pricing and over-regulation of industry will spell disaster for the United States in less than ten vears.

Many wishful thinkers have been led to believe we will have energy self-sufficiency by 1985. I predict that at the current rate of energy demand growth, the U.S. will have a severe recession brought about by the lack of domestic energy by 1985. In fact, there will be an energy shortage in the United States by 1985 that will make your hair curl. Most of this is because of the shortsightedness and lethargy of our Congress in energy matters.



"There is no way to win the energy game! No way to have energy selfsufficiency or to decrease the high cost of imported energy during your lifetime."



"Since EPA and MESA have come into existence in the early 1970's, over 20 percent of our coal mines have been shut down; over 265 electric utility plants switched from coal to oil and gas by governmental



"By 1985. Congress will be very actively planning on nationalization of the energy industry."

Our energy supply is in trouble. We just cannot meet the fantastic energy demands through the year 2000 without yearly increasing the energy imported from outside our borders. Today over 45 percent of oil used in the U.S.A. is imported.

Almost everyone in this country, with the exception of one group, finally became aware of the energy crisis in October 1973 when the oil embargo was imposed by the OPEC countries. That one group was your U.S. Congress. Do you know that your Congress has not put an extra drop of energy into your supply tanks since that date? By this I mean that none of the legislation that they have passed helped to improve our domestic energy situation. In fact, many of the new governmental regulations have decreased the supply of domestic energy.

Sometimes it seems that this country's politicians and environmentalists are linked together in a plot to bring America to eventual disaster by making domestic energy expansion impossible. I believe that the problems of higher taxes, price controls, threat of excess profit penalties, embargoes on leasing or operating in favorable coastal areas, and rigid, excessive environmental requirements serve only as roadblocks in efforts to explore for new reserves or to build

new facilities.

At a meeting in Washington, Senator Muskie told us, "We live in a mixed economy where private enterprise and market forces are supposed to do the job, but if they fumble the ball the federal government will intervene." He reminded us that the auto exhaust catalyst technology was greatly accelerated by the federal law. Gosh, wouldn't it be wonderful if there were some reciprocal arrangement that if the federal government fumbled the ball, private industry could intervene.

Even some of the members of the U.S. Department of Energy believe price controls on petroleum products have eliminated the cutting edge of competition for energy and recommend that price controls be phased

out immediately.

John F. O'Leary, Deputy Secretary of DOE told us at the Western Oil and Gas Association in Los Angeles, December,

1978 that "The oil companies are seeking only to keep their position in the market because they simply cannot earn a return on their investment because of price control. This is the single worst failing in the system and if we perpetrate this control system, competition will be hamstrung-which is against the interests of the American consumer."

Mr. O'Leary went on to say "The oil companies are not the ones manipulating prices. We (the DOE) are manipulating prices and thereby contorting the market. The government should also get out of the entitlements business as fast as we can."

IMPORTED ENERGY

In 1978 we paid other countries over \$44 billion for oil and natural gas. Now we are importing oil and gas at a much higher rate. You might think that at least that's progress. We haven't doubled the amount of imports. But in the larger sense, these figures don't spell progress at all—they spell failure failure and potential disaster for a nation which simply should not spend that much money for imported energies.

Although we continue to be less dependent on imported oil than are Western Europe or Japan, that dependence is growing. In recent years the amount of imports of Middle Eastern oil was doubled. Canada, once our largest oil and gas supplier, wisely decreased exports of petroleum to the U.S. in order to conserve supplies for her own domestic use.

This sickening increasing dependence on imported oil will mean only greater risks of another embargo, and more intimidation in the conduct of foreign policy, which

jeopardizes our entire nation.

Many wishful thinkers believe that the OPEC price of oil will decrease by 1985. My own prediction is that the OPEC price for oil, oil products, and petrochemicals will continue to increase beyond 1985 if we do not develop an effective energy program here in the U.S.A.

How in the world could the wealthiest and most powerful nation on earth allow itself to be boxed into a corner like this? The reasons include the senseless, inflexible

governmental regulations and the extreme demands of the environmentalists. We now have so many roadblocks to expanded production that the energy industry is practically inert because of governmental laws and red tape. Despite the continued warning from experts, the Federal Power Commission has been required for more than 29 years to keep the wellhead price of natural gas at extremely low levels in order to hold down the prices for consumers. These controls decreased the incentives for the development of new domestic supplies so that, just as we predicted in the early fifties, there is much less natural gas than we need today. Instead of *learning* from this horrible natural gas control experience, we are now repeating our mistakes in the oil industry, where we again have imposed price controls. Again, we can predict the results: By keeping the prices of natural gas and domestic oil at ridiculously low levels, we are forcing consumers to buy more expensive foreign products from foreign oil and gas sources because we are producing so much less of our own oil and gas.

In 1979, we paid our own U.S. producers only \$1.90/million BTUs for natural gas (but only for newly discovered gas—most of the old gas sold for as low as 50¢) but offered as much as \$4.35 for imported liquefied natural gas (LNG). We paid our own U.S. producers \$12.50 for new oil (\$5.60 for old oil) but paid our than \$15.00 for imported oil. President Carter said on a nationwide TV broadcast that the U.S. energy producers would make too high "windfall" profits if he deregulated prices on oil and gas. He went on to say that the 1976 oil profits of the 30 top oil companies were higher than \$75 billion. It is embarrassing to have our president mislead the nation intentionally in order to try to sell his inferior energy plan. The true story is told by U.S. Congressman Jim Collins*":

'Basically, the approach is that some way or another there is something wrong about big oil companies or that big oil companies have made gigantic profits.

"Well, I wanted to investigate that allegation. I took the 35 largest oil companies because they are the ones that

are always criticized so vigorously. I wanted to see how much money they made and how much money the stockholders received, because, after all, in the oil business the stockholders from coast to coast own these companies. Let us find out how much they have been making out of all this profit bonanza we have heard so much about. I took the year 1976, which is the last year for which we have complete records, to see how much they made. The dividends paid to stockholders were \$4,554 million. To repeat, that is \$4,554 million.

"What is interesting is that these same companies had paid to employees in the way of payrolls and in benefits \$15 billion. In other words, every time the stockholders made a dollar the employees

were getting \$3.

"But do the Members know who was making most of the money from the oil companies? It was taxes, taxes, taxes. The taxes were so tremendous I could hardly visualize it. They had paid taxes on dividends, they had paid taxes on their employees' share of earnings, they had paid excise taxes, and then they had paid all the other forms of taxes that exist.

"From revenues of these 35 oil companies with their operations, \$53.7 billion went for taxes.

"Now. I want the Members to think about that for a minute. While the stockholders got \$4.5 billion, taxes were getting \$53.7 billion. On its very face it is obvious that anytime anything in this country is generated in the way of money, for every \$1 going to the stockholder, \$12 is going in the form of taxes to government."

How much does DOE cost?

Mr. Collins Continues:

"Here is the amazing figure, and it is a matter of actual record, it is there. It costs \$11.3 billion in total to produce all of the oil and gas in this country. That is not only the cost for new oil and gas, but it also provides for the 500,000 old oil and gas wells industry has to work over. It costs \$11.3 billion a year. The gentleman will recall what the congressional authorization was for the energy bill. It took care of nothing but bureaucrats and gobbledygook and planning. DOE was \$12.6 billion. That is amazing. For \$11.3 billion business ran the entire oil and gas industry, and yet this FERC, needed authorization of \$12.6 billion. I want to go into that. This Carter energy plan costs more money for bureaucracy and planning than the oil and gas industry spent in getting their production job done.

"Oil and gas private industry costs are \$11.3 billion a year to produce. The Department of Energy authorization for 1979, which is now pending with the

President, is \$12.6 billion.

"This is a total of \$12.6 billion authorized to the Energy Department, while private industry uses only \$11.3 billion to produce your oil and gas.

"This Carter energy plan costs more money for bureaucracy and planning than the oil and gas industry spent in getting

their production job done."

As we continue to import more and more oil our dollar value will continue to decrease on the international market. This adds greatly to the increasing inflation here in the U.S.A. If we did not have to import liquid hydrocarbons we would have had over a \$20 billion positive trade balance last year. Many people just do not realize that petroleum imports account for over 30% of all imports. In 1978 we imported over \$44 billion worth of energy. None of this \$44 billion goes to the U.S. government, U.S. employees, or U.S. industry.

*U.S. Congressional Record Oct. 14, 1978, No. 168, Part III.

INCREASED USE OF COAL

The companies trying to use more coal are having troubles. While one branch of government is starting to order more plants to use coal, other branches take action that will eliminate a million tons from the market. Expanded production is being held up by rules limiting strip mining and a moratorium on leasing federal coal lands. While the domestic use of coal is limited by too strict clean air rules, at the same time the export of coal to Germany and Japan is

being promoted by our government with the result that the eastern U.S. reserves are being used for foreign consumers who bid up the price, making the fuel more expensive to Americans. In the midst of this tremendous energy crisis it's difficult to believe that the coal consumption in the United States today is lower than it was 30 years ago. Most of this is because of EPC, EPA, and MESA, Since EPA and MESA have come into existence in the early 1970s, over 20 percent of our coal mines have been shut down; over 265 electric utility plants switched from coal to oil and gas by governmental order.

It's necessary for us to triple the amount of coal that we use by 1990. We must find a way to produce this much coal, and we must be allowed to consume this much coal if we wish to free ourselves of the increasing import. The action by Congress to pass strip mining legislation that creates disincentive to production, unnecessarily adds to costs and adversely affects jobs illustrates again the wrong direction Congress takes for the

energy policy.

Here is just one of the many senseless predicaments in which we find ourselves: Thirty-six coal-burning electrical plants were instructed by EPA to use certain scrubbers to remove sulfur dioxide from the stack gas. The EPA claims these scrubbers have been proven to be effective by the Japanese. If the electrical power companies put these scrubbers on these 36 coalburning electrical plants, they will produce a toothpaste-like sludge from the scrubbers that will cover 13 square miles of surface, one foot deep, each single year. You see, many times the EPA controls are worse than the original problems. None of us can forget the tail gas catalytic converters faux pas on the '75 and later cars.

NUCLEAR ENERGY

In the field of nuclear energy, the story is again a sad one. This country was the pioneer in the development of nuclear power. Yet today we require up to 13 years to build a nuclear power plant is the United States while it takes only 4½ years in Europe or Japan. Why? Again, because of excessive governmental regulations! Incidentally, the very first one in the U.S. was built in less than 4 years at Shippingport, Pennsylvania.

Many of you will recall the story that way back in 1889 something was bothering Thomas Edison. He wrote an article for the North American Review (Vol. 149, 1889, p. 632) warning the public about what he perceived as a major public danger.

"My personal desire would be to prohibit entirely the use of alternating currents," Edison wrote, "They are unnecessary as they are dangerous. I can therefore see no justification for the introduction of a system which has no element of permanency and every element of danger to life and property.'

Now, from the vantage point of our alternating current world 90 years later, it is apparent that this great person either was unexplainably wrong in principle, or he failed to anticipate the technology that put alternating current electricity into nearly universal use across the United States.

We solved the alternating current hazard—we can solve the new hazards.

Nowadays people are worried about nuclear radiation risks and hazards just as Mr. Edison was worried 90 years ago about AC electricity. Everyone admits that radiation can be dangerous and electricity can be dangerous. But reasonable people will take moderate risks for great benefits, small risks for moderate benefits, and no risks if there are no benefits. Our policy makers must learn that the world is risky, and that the problem isn't whether something is safe, but what the risks are, and whether the benefits are worth those risks. If we could get governmental regulation founded on such a rational basis, we really would be a step ahead on the road to further progress through the benefits of modern science and technology.

Our nation and its laws should aim at devising the best possible means to manage the risks involved—rather than deceiving ourselves and the public into believing that all risks can be banned by human force.

Rather than simply banning the material that may be dangerous, we need to answer

more basic questions. What is the nature of the hazard? How serious is it? Can it be managed properly? In short, we must weigh the risks and our ability to manage them with the benefits. If the human need is great, such as with radioactive materials used for medical treatment, then a safe way for manufacture and use must be found. Risks are to be found everywhere in life.

CAN WE HAVE ZERO RISK?

EPA uses statistics to prove that "even negative experiments do not quarantee absolute safety.'

Since when has it been a government function to "guarantee safety" to a 100 percent level? There is no activity of man, including the normal basic physiological functions, without risk. As some witty Irishman once said, "The path from the cradle to the grave is so beset with perils, 'tis a wonder that any of us live to reach the latter." All that any of us have the right to expect, and all that the vast majority of us ask, is that government regulations help keep the risks within reasonable bounds, not that they "guarantee absolute safety" there is no such animal!

During the past 20 years we again have dire warnings from many highly educated people. They tell us of the imminent doom from hazards (which are, by any reasonable assessment, really quite small). They have helped convince the average U.S. citizen that all chemicals are dangerous and should be avoided. They proclaim the terrible danger that a few people may fall victim to cancer originated by the chlorination of public water supplies, and they cause widespread concern about the safety of the water the public drinks. But they totally ignore the millions of people who died of typhoid, and other waterborne diseases before the general adoption of chlorination. They shudder over the possibility that a few people may be adversely affected by food preservatives. They neglect to point out that there would be greater incidence of disease. and loss of foodstuffs (in a world already concerned about adequate food supply) if the preservatives are not used. Here are other examples of the misguided crusading:

You know the plain fact is that there is no substance, including water and oxygen, which is not harmful to, or which will not produce toxic reaction in, laboratory animals or in human beings when administered in massive overdose. Similarly, there is no substance which, even in small amounts, will not cause problems to a few unfortunate individuals who happen to be sensitive or allergic to that particular material. We simply cannot guarantee complete safety by government fiat or any other means. Of course, we need to curb pollution, but we need to do it rationally, balancing general benefits against general risks.

Shouldn't we rather get a better perspective on relative hazards and devote more of our energies to stopping some of the more genuine menaces to the average citizen, such as our annual highway death toll, the rise of violent crime, increasing rates of rape, murder, etc.? If I should be injured in a collision with a drunken or reckless driver, or if helpless people should be robbed and perhaps murdered, it would be a small consolation to know that EPA has "protected" us from the very slight chance that we might develop cancer from an additive which has been in general and beneficial use for many years with no discernible ill effect on the general public health! Let's get off cloud nine and down to earth about the real risks and chances involved in living in this imperfect world.

When we consider zero risks, let's remember that in the history of commercial nuclear plant operations, no accidents have occurred involving public injury or overradiation. Yet, in the same period in the United States alone, 938,000 people have been killed by motor vehicles and more than 80 million have been injured by this highly popular invention. To my knowledge there is no popular movement to "ban the auto".

In 1977 alone there were over 31,000 truck accidents which included 3,000 deaths and over \$20 million worth of damage. Should we eliminate trucks from our highways?

In 1976 over 154 miners were killed in the United States and over 1,000 people were

electrocuted from electric power lines and appliances. Should we cut out electricity and shut down the coal mines?

In 1976 over 70,000 teachers were assaulted in the classroom by their students, ranging from slaps by the student to killings with knives or ice picks. Should we eliminate classrooms? Over 24,000 people were murdered in the U.S. in 1976.

WHAT IS THE U.S. ENERGY PICTURE TODAY AND TOMORROW?

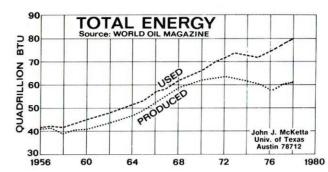
It is very difficult for the public to believe that there is an energy crisis because they have no trouble in getting all the gasoline they want at the gas pump. Unfortunately, no one tells the public that approximately half of the liquid products we use in the United States come from outside our shores. Little do they know that the actual liquid production in the U.S.A. will be about 1 percent less this year than it was in 1978. In fact the production of oil in the 48 contiguous United States has been decreasing year after year since 1970. The imported liquid, however, has increased approximately 38 percent over 1973.

The balance of payment deficit soared to \$30.3 billion in 1978, adding greatly to the decreased value of the U.S. dollar on the international market and the staggering increasing rate of inflation within our shores.

This is the sort of information that should be made available to the general public so that they know that even though the supply of gasoline is high, the country will have great difficulty in paying for this imported liquid.

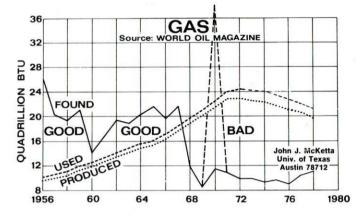
The real energy story can be best presented in the form of charts depicting the individual situations. Let's turn to Figure 1. Figure 1 shows the total energy *used* by the United States from 1956 through 1978. On the same chart is shown the total energy *produced* during these years. The area between these two lines shows the amount of energy we imported from 1956 through 1978. We imported 23.8 percent of the *total* energy used in the United States in 1978.

In figure 2 is shown the total gas used by









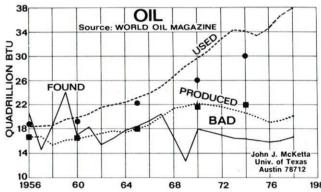
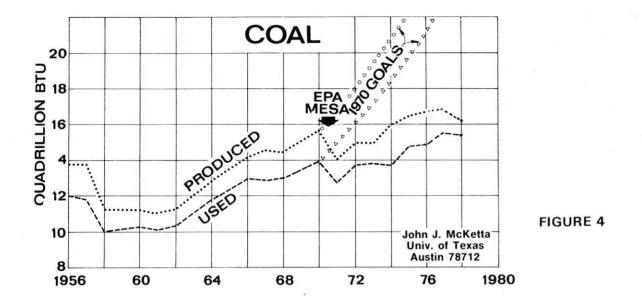


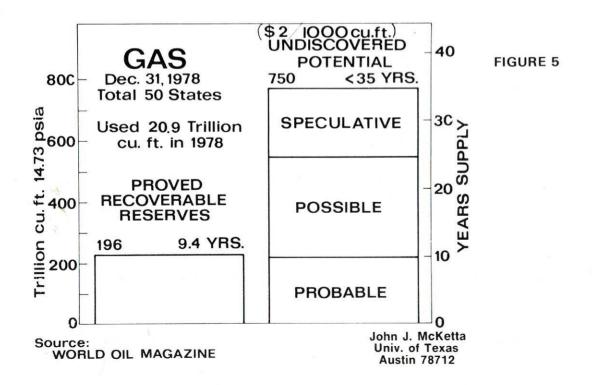
FIGURE 3

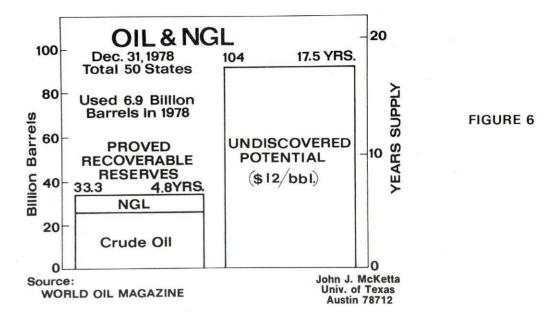
the United States from 1956 through 1978. The dashed line shows the gas used and the dotted line shows the gas produced in the United States over the same period of time. The solid line indicates the total amount of gas found during this same period of time. You can see that beginning in 1967 we consistently have discovered less gas than we have produced or used. In 1978 we imported about 5 percent of the total gas that we used. Notice that the gas production declined in 1971 for the first time. In 1970 38 Q's of gas were discovered in northern Alaska but no gas pipe line construction has been started yet.

¹ Q = Quadrillion British Termal units. This is the energy in 1 trillion cu. ft. gas or 46 million tons coal or 180 million bbls. oil or 293 mill. megawatt hrs.

Figure 3 represents the same information for oil. We imported over 47 percent of the liquid hydrocarbon used in this country in 1978. It is most undesirable to import these large quantities for many reasons. Among these are: (a) the imports add to a negative balance of payments (minus \$30.3 billion in 1978); (b) dependence on imports constitutes a threat to our national security. The solid line indicates the amount of new oil found from 1956 through 1978. Just as in the case of gas, we are now finding less oil each year than we produce or use. The slight increase in 1977 and 1978 was due only to the oil through the Alaskan pipeline. The rest of the country's production continued its decrease (2% each year).





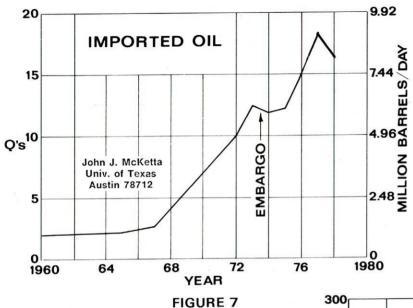


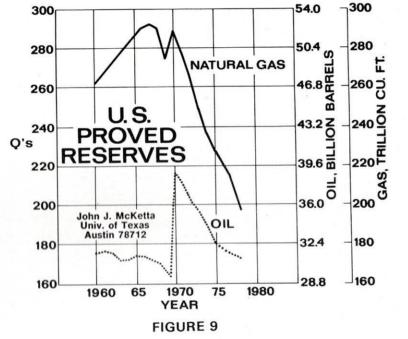
The picture of coal is a reverse of oil and gas as shown in Figure 4. We have consistently produced more coal than we use. We have exported coal to Germany and Japan since 1946 as part of our reparations agreement. We also export large volumes of coal to Canada. The total income from the coal was \$1 billion compared to the \$44 billion we spent for hydrocarbon liquid in 1978. In 1970 the effect of the Mine Safety Act and EPA regulations is noticed on the production and usage of coal: 22 percent of the coal mines were closed during 1970-71 because they could not meet MESA standards. During the same time the restriction on the use of high-sulfur coal decreased the usage. The coal supply should be tripled by 1985 if we are to approach selfsufficiency. This goal, however, is physically impossible. The goals, of doubling coal production and usage by 1985, recommended in 1970 are also shown in Figure 4. Coal production and usage both dropped significantly in 1978.

Figure 5 shows the gas reserves in the U.S.A. The left bar of this figure shows the proved recoverable gas reserves as of December 31, 1978. At 1978 year end we had 196 trillion ft. We had approximately 9.4 years of proven recoverable gas reserves at that time. We used 20.9 trillion cu. ft. in 1978. On the right bar we see the

undiscovered potential of gas in the United States. Most of the discovered potential is expected to be in the Outer Continental Shelf. Even the most optimistic figure of 750 trillion cu. ft. will last us less than 35 years. I believe it is extremely significant that even though 70 percent of the proven recoverable reserves of gas are found in the southwestern states, including Texas and Louisiana, these states are planning to depend heavily on coal, lignite, and nuclear reactors for their electrical energy. The undiscovered potential of Fig. 5 is based on \$2 gas; if the price of gas is raised to \$6, the potential of gas increases from 750 trillion cu. ft. to over 6500 trillion cu. ft.

Figure 6 shows the proven recoverable reserves for oil and natural gas liquids (NGL) to be 33.4 billion barrels as of December 31, 1978. At the rate of oil usage of 6.9 billion barrels in 1978, this gives us a 4.8 years' reserve. The bar on the right hand side indicates the undiscovered recoverable oil potential which may be as high as a hundred billion barrels, or slightly over 17 years' supply as of this date. This is based on a cost of oil at \$12/bbl. Therefore, this does not include the trillions of barrels of oil which could be recovered from shale, tar sands, enhanced recovery of oil, depleted wells, and other sources.





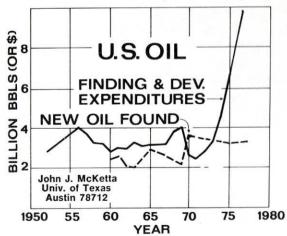


FIGURE 8

Figure 7 shows the dramatic increase of oil imports annually. Instead of *decreasing* the imports we continue to increase our dependence on foreign energy. There was a slight decrease in 1978 but there was a large increase in 1979. Figure 8 shows the great increase in expenditures for finding and developing oil sources. Figure 9 shows the U.S. proved oil and gas reserves annual decline.

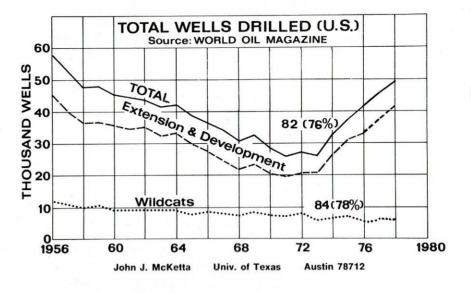


FIGURE 10

Figure 10 shows the dramatic decrease in the total wells drilled in the United States from 1956 through 1973. The decrease was from 53,000 wells in 1956 to 26,400 in 1973. Mr. Mike Halbouty points out the number of independent drillers decreased from more than 39,000 in 1956 to less than 3,600 in 1973. The reason these men left the industry was that the return on their investment was not as high as in other fields. The lower line shows the wildcat well record from 1956 through 1978. Of the wildcat wells drilled in 1978 only 14.0 percent showed any significant amount of hydrocarbon, while less than 9 percent were commercial wells. Note that the majority of the wells are drilled by the independents (84 percent) who found 78 percent of the oil and gas. The independents drilled most of the wildcat wells also (89 percent) and discovered 76 percent of the wildcat hydrocarbons. Since the embargo, when the price of U.S. oil increased from \$2.80/bbl to \$10.35/bbl, the number of wells drilled annually has increased to 49,000 in 1978. The number of independent drillers increased from 3,600 in 1973 to over 12,000 in 1978. Unfortunately the new field wildcat drilling continues to decrease.

NUCLEAR

During 1978 there were 72 commercial nuclear power reactors in service with a net capacity of 52,600 mega watts. There are 78 additional ones under construction (83,500 mw capacity), but the number of new orders has decreased greatly since 1973 when the strong anti-nuclear extremists appeared in strength. This dramatic decrease is shown below. In 1987-90 when these unordered, unbuilt plants are not producing electricity, these extreme anti-nuclear foes should be held accountable.

NEW ORDERS FOR NUCLEAR POWER REACTORS

Year	New Orders
1973	35
1974	23
1975	4
1976	3
1977	4
1978	2

ALTERNATES

We are continuously being promised by our politicians much energy from alternate sources such as solar, geothermal, wind, waves, rubbing stones, and other sources. We all pray this would be the case, but I'm sorry to advise you that you cannot be so complacent. We use the fantastic amount of energy equivalent to 39.00 million barrels of oil per day. The most likely alternate on the near horizon is geothermal. Mr. McCabe of the Magma Corp. predicted that, if properly encouraged by the government, we could produce 20 billion watts of electricity from geothermal sources by 1985. That is an enormous amount of energy (equivalent to 20 large nuclear power plants). But this fabulous number is equivalent to 320,000 bbl per day (which is only 0.8 percent of our 1978 energy usage). This really sobers one when you know that by 1985 the amount of solar energy will be only one-ninth that of geothermal.

SO WHAT ABOUT THE FUTURE?

The top line of Figure 11 shows the predicted total demand of all types of energy in the United States from 1970 to 2000. The second curve from the top indicates the maximum total energy the U.S. could have supplied during this period if proper recommended steps were taken beginning in 1970. The individual amounts of energy are shown as nuclear and hydro, coal, oil from coal and shale, crude oil and natural gas liquid, gas from coal and shale, and natural gas.

The area shown between the upper two curves represents the increasing amount of imports each year. By the year 2000 we would need to import over 35 percent of our total energy if we can get enough tankers on the ocean to deliver this much energy and if we still have a source of that energy at that time. The total energy produced by the U.S. during this period was predicted using several assumptions.

- The maximum population will not exceed 271 million by the year 2000.
- b. Inflexible governmental regulations

- will be decreased between now and 2000.
- Less resistance will be offered by the extreme environmental demands.
- d. No new major energy usage, such as general weather control and defogging of the cities, will take place between now and 2000.

Figure 11 indicates that 8 billion barrels of oil will be imported during the year 2000. This means we would need over 1,000 tankers of 1 million barrels net capacity (we have none yet of this size) continuously on the high seas to make this delivery. Incidentally, the 8 billion barrels/year of imports would cost over \$200 billion per year by the year 2000. This is the equivalent of 20 million new jobs at \$10,000 per person/year

The only thing wrong with Figure 11 is that it was prepared in January 1970 using the data through 1969. Now look at Figure 12, which shows the top two lines of Figure 11 showing the demand and supply for the total U.S. energies between 1970 and 1985. Now with the history of 1970 to 1978 behind us, it is easy enough to show the demand and supply curves (dashed lines) in Figure 12 which show that the U.S. energy picture is much more critical than we all thought several years ago. We were all optimistic early in 1970 that we would have a great supply of nuclear sources as well as a huge conversion of solids (coal, lignite, shale, etc.) into oil and gas. If all of the nuclear plants which are now is the planning or construction stage are completed by 1985 (many of these are now being held up in the courts for environmental, siting, and other reasons), less than half of that predicted in 1970 could now be expected to be available in 1985. All of the predictors were overly optimistic on conversion of solids into oil and gas, but now only about one-seventh of this source is expected to be available by 1985 as compared to that predicted in 1970. To make matters even worse, we will not be able to produce even the lowest supply line of Figure 12. You can see from Figure 12 that the U.S. will not be able to produce domestically over 60 Q's by 1985.

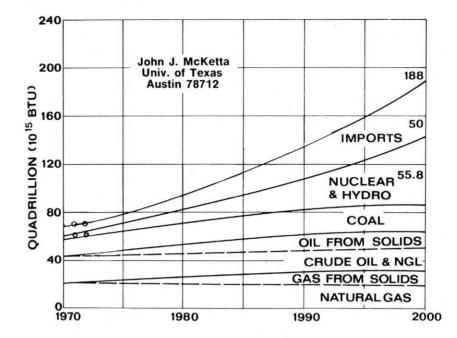
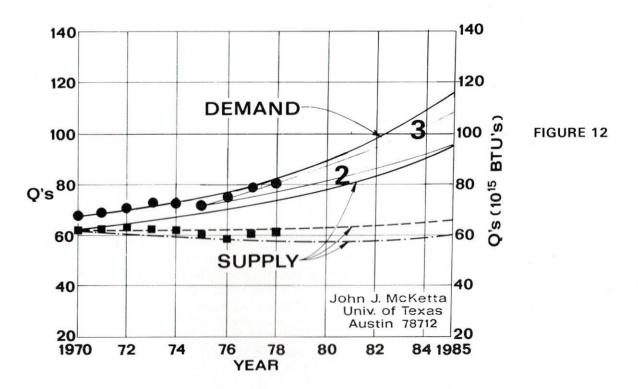


FIGURE 11



WHY CAN WE NOT ACHIEVE ENERGY SELF-SUFFICIENCY BY THE YEAR 2000?

In order to meet the tremendous energy demand from a self-sufficient energy base by the year 2000 we would have to do the following and much more:

a. Find 10 more Prudhoe Bays or four more states of Texas and produce them to capacity.

b. Ban all new cars larger than 40 horsepower so that by 1985 half the cars on the road would be that size.

c. Force a 20 percent improvement in building heating systems.

d. Force a 15 percent improvement in energy efficiency by industry.

e. Force a 15 percent improvement in the effciency of converting electrical power.

f. Totally develop all offshore oil and gas reserves on the Outer Continental Shelves of both the east and west coasts.

g. Increase coal production by a factor of 3.

h. Convert all of California, Montana, and Idaho to geothermal steam electric power (which would be like building 110 Hoover Dams at a cost of approximately \$40 billion).

 Double the present rate of hydroelectric power generation. (Eighty percent of potential sites are located in parks, wilderness areas, and scenic areas.)

 Produce 2 million barrels per day of shale oil by the year 2000.

k. Add one conventional atomic power plant every 2 weeks from now to the year 2000.

So you see, you can expect to be living with an energy problem the rest of your life. I see no way to get out of this horrible mess before the year 2000. We can alleviate this shortage slightly, but only if we establish an effective national energy policy now. This policy will bring about great personal sacrifices of people on every level. It will require billions of dollars (but much of this can be spent from the savings of money

resulting from decreased imports because of the new energy policy). This will require the use of our own vast resources.

THE CARTER-SCHLESINGER—FREEMAN ENERGY PLAN

President Carter and his staff obviously do not realize that the energy crisis is only a symptom of a bigger problem. The Carter plan recommends more governmental rules to alleviate the energy problem when we are in the crisis because of senseless, inflexible governmental regulations.

There are some details within the Carter plan that are commendable—a single department, conservation, more use of coal. But there is much that is of questionable value, either by commission or omission. Some judgments are either good or bad,

depending on the evaluator.

Any evaluation is biased by one's stance relative to democracy versus socialism—relative to free enterprise versus central control. Those who favor socialism and its inherent strong central government will generally applaud Carter's approach. Those who believe in democracy and its promised freedom of enterprise and other lifestyles will be sickened in reviewing the detailed proposal—page by page. Both groups, however, will find ample details for conflict based on regional, industrial, and social provincialism, and in their appraisal of the balance required between conservation and expanded supply.

I hope no one automatically sneers when I plead for reliance on the free market mechanism as our main tool to both cut our growth in demand and boost our supplies. We've seen the free enterprise system work its concrete, measurable miracles every day for two centuries.

Of course the free market can be a socially brutal system. But so is *slavery!* So is excessive governmental regulation—just look at Russia today—or even England.

Carter's plan is founded on the principle of central control and *seemingly* acts on the belief that the government should take from those who can afford to—or must—use energy, and to distribute the proceeds to

those least capable—or unwilling to care for themselves.

The Carter program is based essentially on the theories of the original Ford Foundation energy plan ("A Time to Choose," 1974), which was directed by Mr. David Freeman. Mr. Freeman was Dr. James Schlesinger's number one adviser on energy. They err in several respects. First they believe that there is no relation between energy use, GNP, and employment. Their theory of economics in these areas is extremely out of phase with actual relations among these three variables. Second, they prepared their program on the basis that we are running out of oil and gas. This is certainly untrue, since the outer continental shelves of the United States are virtually untouched, except for the Gulf Coast area, which has been extremely highly productive. We have not yet taken advantage of any of the multi billions of barrels of oil from the shale and tar sands, nor have we delved into the new area of enhanced recovery, which could produce billions of barrels of oil from the already discovered fields that have been depleted from primary and secondary recovery methods.

President Carter's program proposed to saddle the people with new taxes. Not to be bringing in more fuel supply but as Dr. Schlesinger said, "To have flexibility to do something else with it later on." Most Americans are uphappy with what the government has been doing with the money up to this date. If all of President Carter's plans were enacted, this country would be paying \$60 billion per year more in taxes for energy by 1987, but would be saving only the equivalent of one million barrels of oil per day. Remember that not one cent of this money would be available for further oil and gas exploration, production, and development. A simple arithmetic calculation show you that the tax payers would be paying about \$164 per barrel of oil under the Carter plan.

President Carter asked for voluntary conservation from the public, communities, and industry. He really promises nothing in

return. The President indicates the true fact that the energy crisis can be compared to a national emergency such as the state of war. He should have asked for voluntary conservation bordering on hardships and sacrifices, and then he should have promised something concrete that he would do on his part.

A. VOLUNTARY SAVINGS BY PUBLIC:

The voluntary conservation bordering on hardship and sacrifices by the public would include many of the following:

- Eliminate the use of air conditioning in automobiles.
- b. Cut back on heating (62° maximum) and air conditioning (78° minimum).
- Cut out the use of clothes dryers—this is one place where solar energy is very effective.
- d. Cut out the use of escalators—cut down the use of elevators.
- e. Cut out buying disposable containers.
- f. Buy smaller, more efficient automobiles.
- g. Increase car pooling tenfold.
- h. Retain the 55 miles speed limit. (The average car uses 15 percent less fuel at 55 than 75 mph. More important, we have found that we save 10,000 lives per year in addition to 250,000 bbl/day of fuel.)
- Increase mass transportation threefold.
- Use re-refined lubricating oil instead of first grade.
- Make sure that the new buildings are better insulated.
- Make sure that the new office buildings have windows that can be opened.
- m. Burn solid waste and garbage in your communities.
- Raise the legal age of car driving to 18 years of age.
- Decrease use of cars on Saturdays and Sundays.
- Decrease highway driving to absolute necessity.

B. SAVINGS BY THE GOVERNMENT:

After making these requests, the President should promise to match the voluntary conservation by the public with some corrective actions by the U.S. government as follows:

- a. Cut out forced busing of school children.
- b. Cut out catalytic mufflers from automobiles (except in the Los Angeles Basin and downtown New York City and Chicago).
- c. Put lead back into the gasoline.
- d. Change the Interstate Commerce Commission laws that permit deadheading and indirect routing of trucks.
- e. Ease up on environmental restrictions to permit burning of more coal without sulfur removal equipment.
- Cut back on unnecessary governmental regulations.
- g. Go back to the free enterprise system and let the marketplace decide the price of the energy.
- Encourage energy producers to produce more energy.

For example:

- 1. Triple coal consumption by 1990.
- 2. Have 1,000 nuclear reactors by 2000.
- Bring back the breeder reactor program.
- 4. Discover and produce 10-15 percent more oil and gas by 1990.
- 5. Open the outer continental shelf to find more oil and gas.
- Open more federal lands for coal mining.
- 7. Encourage shale, tar sands development.
- 8. Support research and development on solar, on the breeder, fusion, wind, etc.

Just these few items could increase the energy supply by 3.5 million barrels per day of oil equivalent and decrease the demand by 2.5 million barrels per day by 1985. But this will require a Congress and administration to set a policy with conviction. It is up to them to indicate strongly to the people of the United States that the welfare of this country is more

important than the ability to be reelected to office.

If the present Carter policy is not altered, I predict that in 1980 we will have severe mandatory allocations for all uses (I call this rationing, but Dr. Schlesinger feels that there is a difference). By 1985 Congress will be very actively planning on nationalization of the energy industry.

I predict, further, that if the Carter energy plan is not drastically altered:

- a. We will not average 10 percent conservation per year.
- b. Inflation will have grown faster than 0.4 percent (admitted by President Carter and his adviser, Charles Schultz). The inflation will grow as much as 4-6 percent faster than normal.
- c. We will be producing less energy and importing more by 1985.
- d. We will have 15-20 percent unemployment by 1985.
- e. We will have a depression by 1985 as bad as the one we had in 1929.

Dr. Milton Friedman, the Nobel Prize winning economist, in 1977 said the following: "The Carter proposal is a monstrosity. Its end result would be less energy and more wasteful use of energy. The consumer would pay high costs—producers of all products would be forced to use energy inefficiently—the Carter proposal is a prescription for stagnation."

Since the energy picture looks so bad, the public must be encouraged to take action. It's necessary that you and I let Congress know how we feel. I urge you to write your congressman-go see him-send letters to President Carter—to the editor of your newspaper-to magazines you read. When you hear or read irresponsible or just plain wrong arguments about energy, you should respond. Get yourself fully, completely, sincerely involved in this energy crisis. Tell the people the hard truth—you and I and our families and our friends and our fellow citizens are slipping into an unimaginable catastrophe. There is every possibility of great social upheaval and actual revolution. If you don't carry the message, who will?

CAN THE U.S. ECONOMY ACTUALLY COLLAPSE???

You bet it can—and it possibly might be as early as 1985. If you have any doubts you should read the article by Dr. H. A. Marklein in *World Oil Magazine*, December 1975 (World Oil, Post Office Box 2608, Houston, Texas 77001.)

FINAL

In closing, I should like to echo the words of my good friend Bob R. Dorsey. "I want to put in a word for patriotism. This term has been snickered at in this country in the recent past—maybe because we have become so burdened with national guilt that

we find it difficult to profess national pride. All the same, I suggest that a healthy dash of patriotism today in out national melting pot could help us solve, not only our energy and environmental problems, but many of our other problems. I am not referring to the blind nationalism of fanatics or even the ritual symbols broken out for the Bicentennial or the Fourth of July, laudable as the latter are. I am suggesting a thoughtful reflection on, and rededication to, the tremendous opportunities that the United States of America has offered generations of men, women, and children to lead healthier, happier, and more rewarding lives than they would have anywhere else on earth."

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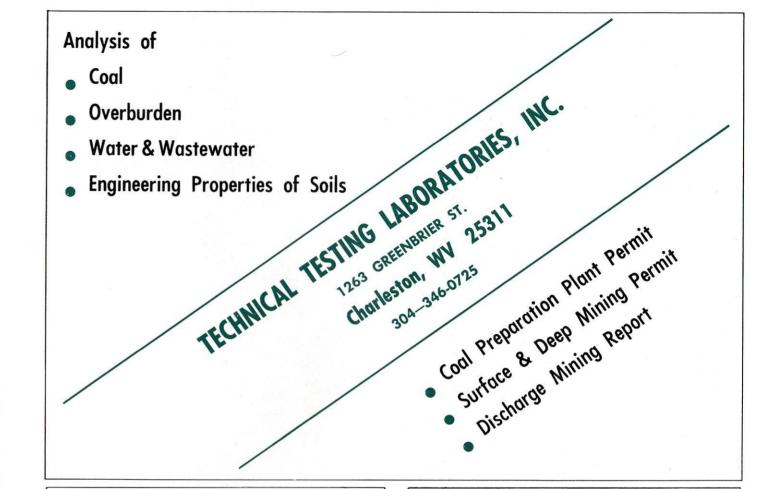
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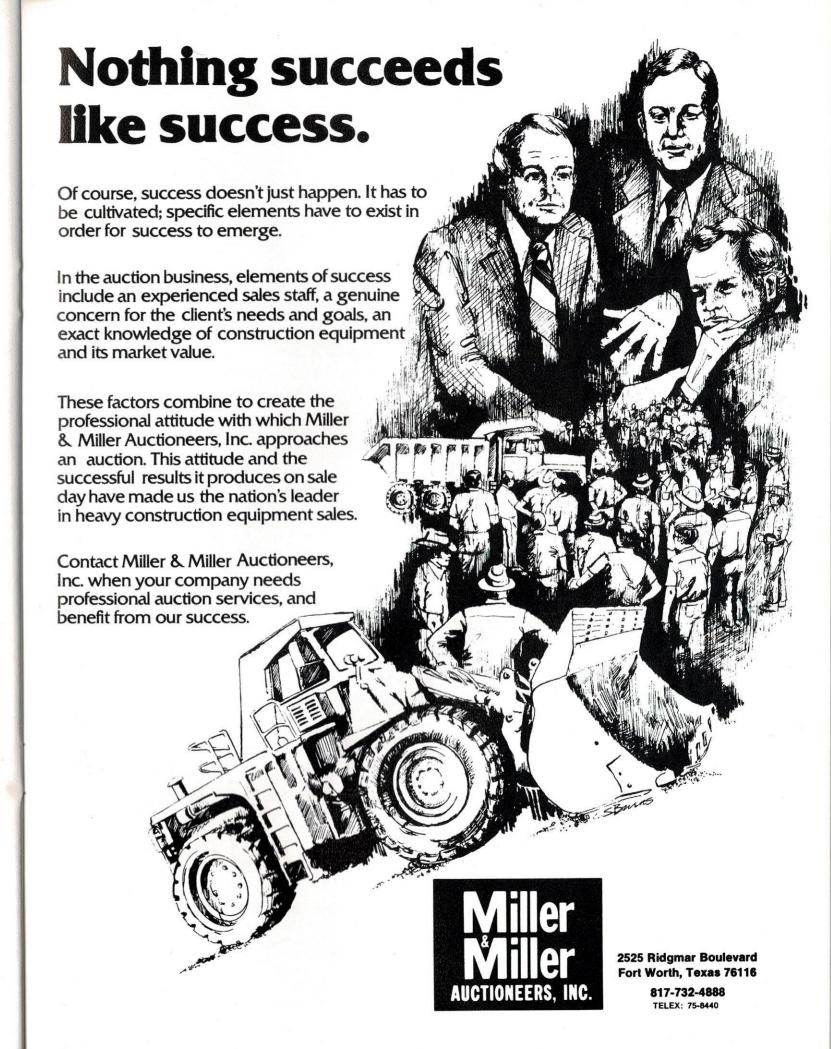
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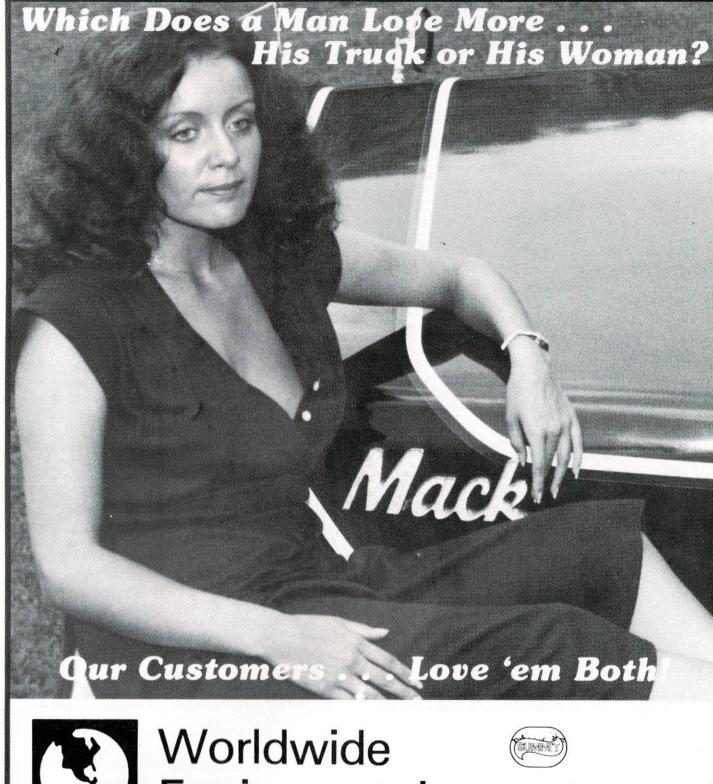
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The Small

Patrick C. Park Assistant Chief, Division of Reclamation

During the enactment of the Surface Mining Control and Reclamation Act of 1977 (Public Law 95-87), Congress recognized the importance of the small operator to overall coal resources and the nation's energy goals. These operators constitute 84% of this nation's surface and subsurface mines which produce almost 20% of the nation's yearly coal output.

The Surface Mining Control and Reclamation Act will require extensive environmental permitting procedures, many of which are new to current state permitting programs and these additional requirements for data collection and analysis will substantially increase permitting costs to the small operators. Congress foresaw this condition, and consequently the Small Operators Assistance Program was enacted in Section 507)c) of Public Law (P.L.) 95-87, known as "SOAP."

To implement this program, Congress built provisions into the Act through the Abandoned Mine Land Reclamation Fund (AML) for which all operators of coal mining operations are subjected to a reclamation fee of 35¢ per ton of coal produced by underground mining. The fund allows \$10 million or 10%, whichever is larger, to be earmarked for the Small Operators Assistance Program annually. On hand are \$20 million accumulated from 1978 and 1979 AML appropriations and another \$5 million from general 1979 fund appropriations.

The SOAP program provides assistance to small operators who mine less than 100,000 tons of coal from the preceding year from all locations. The production from the following operations shall be attributed to the operators:

1. All coal produced by operations beneficially owned entirely or controlled by reasons of ownership,

Operators Assistance Program

directions of management or in any other manner.

2. Pro-rated share, based upon percentage of beneficial ownership of coal produced by operations in which the operator owns more than a 5% interest.

3. All coal produced by persons who own more than 5% of the applicant or who directly or indirectly control the applicant by reasons of stock ownership, direction of management.

4. The pro rata share of coal produced by operations owned or controlled by the person who owns or controls the

applicant.

The Division of Reclamation, SOAP Program, will be responsible for having all hydrologic information collected for the "Determination of the Probable Hydrologic Consequences," P.L. 95-87 subsection 507 (b) (11) known as Determination and all information related to the "Statement of Physical and Chemical Analyses of Test Borings or Core Samples," P.L. 95-87 subsection 507(b) (15) known as **Statement**, for the small operator or for any surface mining operator to include in the permanent permit application for a surface mining permit or modification of a valid existing surface mining permit in which the application must be filed to the Division of Reclamation within two months of the permanent state program approval. If a permit approval is not obtained eight months after state program approval, then no person may engage in or carry any surface mining operations within the state unless a permit had been obtained. In that case, a waiver is granted on specified permit approval.

In other words, to adequately assess these impacts requires the **Determination** and the Statement to contain a variety of information which can be combined with information from other permits and general hydrology of the area, to produce a sound

understanding on the area's "hydrologic balance." The hydrologic balance can be defined as the quantity and quality of both surface and groundwater; timing, patterns, and rates of water flow: stream channel conditions; and aquatic habitat. Each of these components must be considered independently and in contrast.

The **Determination** is essentially an analysis of the potential "cause-effect" relationship of the Mining and Reclamation operation on the quality and quantity of the surface and groundwater regimes. Within the affected area and the adjacent areas, to adequately assess the surface and groundwater regimes, quality and quantity of waters must be defined for the seasonal variations in which seasonal variation could be defined as a spring, summer, fall and back to spring relationship.

The **Statement** is essentially to identify the geology, groundwater conditions and potential toxic materials. The Statement requires logs of the drill holes, the thickness of the coal seams, analyses of the chemical properties of the coal, including sulfur content, chemical analysis of potentially and a toxic forming sections of the overburden and chemical analysis of the overburden above the coal and the stratum (minimum ten feet) lying immediately beneath the coal to be mined. Overburden and minesoil analysis shall be in accordance with standard procedures outlined in **Environmental Protection Agency Manual** #600/2/-78-054 (Field and Laboratory Methods Applicable to Overburden Minesoils) or any other methods approved by the Division of Reclamation.

The Division of Reclamation, in the collection of all this information to produce a sound understanding of the area's "Hydrologic Balance" a pre-qualified laboratory, as defined in 30 CFR 795.17, shall be contracted to fulfill the above requirements. A laboratory is a private or public engineering type firm, agency or

analytical laboratory. Before a laboratory can be pre-qualified, the labs must submit an application to the Division of Reclamation or Office of Surface Mining (OSM) on application forms from OSM and then an onsite inspection shall be conducted by the Division of Reclamation or OSM then a determination shall be concluded stating whether or not the laboratory will be prequalified. OSM shall periodically publish in the Federal Register a complete list of all pre-qualified laboratories for all regions.

Small operators who received assistance from the Division of Reclamation will be liable for reimbursing the Division for all cost incurred in their assistance under any of the following conditions:

1. Submission of false information on the application (DR-30) submitted to the Division of Reclamation.

2. Failure to file a Surface Mining Application with the West Virginia Department of Natural Resources within one year from receipt of the approved laboratory report.

3. Failure to mine after obtaining a

surface mining permit.

4. Mining in excess of 100,000 tons per year. However, if the operator's annual production for coal exceeds 100,000 tons during any year of the life of this permit in all operations, the Division may waive the reimbursement obligation if it finds that the operator acted in good faith at all times.

The West Virginia Department of Natural Resources, Division of Reclamation, submitted a letter dated June 11, 1979 to Dr. Charles Beasley, Director of Office of Surface Mining, Region I, stating our firm intention to administer the SOAP program. In October of 1979 the State of West Virginia submitted and received an administration grant of \$112,000 and an operation grant of \$582,000 to administer this important program. The Division will initially have a staff of four people; administrator, soil scentist, hydrologist and a secretary to administer this program.

The Division estimates there are approximately 300 small operators within this state which probably could qualify for assistance under this program. As of February 18, 1980, the Division will receive all applications requesting assistance under the SOAP program and will process the applications so the operators can utilize this information in their permanent permit application.

In the above text, I have attempted to describe the basic small operators assistance program pertaining to qualification of operators, work to be performed by the Division of Reclamation, permanent program status, laboratory qualifications and liability of small operators who receive assistance.

Now let me outline the standard procedures and practices of the Division in implementing the program. First, the small operator must complete and submit, to the Division of Reclamation, an application requesting assistance (DR-30). The main items of the DR-30 are listed below:

1. Item #9 — Do you or any person, partnership, or corporation associated with you now, hold or have you ever held a surface mining permit or deep mining permit issued by the State of West Virginia or any other state?

() Yes () No If yes, complete the table.

2. Item #13 — Attorney to attach statement of authorization stating the company has the legal right to enter and conduct operations on lands to be covered by this permit.

3. Item #17 — Attach U.S.G.S. topographic map in accordance to Chapter 20, Article 6, Section 9 of the Code of West Virginia and the West Virginia Surface Mining Reclamation regulations as promulgated.

If all items of the DR-30 are completed to our satisfaction and the applicant meets the qualification requirements, then applicant shall receive from the Division a conditional approval for assistance with certain liabilities as previously outlined.

Secondly, the Division has divided the work to be performed into two phases. Phase I is divided into four major step categories;

Step I — Assess site mineability

Step II — Establish mining company qualification

Step III — Recommend consideration for full scale investigative efforts

Step IV — Assisting the Division in preparation of the work order for Phase II operations.

Under Phase I, the State of West Virginia has been divided into four separate regions for which the Division shall have four separate pre-qualified laboratories under an open end contract agreement to prepare Phase I operations. The estimated time schedule will be 30 days per applicant. Phase II operations will be divided into three Major step categories:

Step I — Determination of the probable hydrologic conse**quences**

Step II — Statement of physical and chemical analysis of test borings or core samples

Step III — Final report in determining a sound understanding on the area's hydrologic balance and what effect mining and reclamation will bear on that balance.

Again, in Phase II, the State of West Virginia will be divided into four separate regions for which the Division will have four separate pre-qualified laboratories under an open end contract agreement to perform Phase II operations. The estimated time schedule will be 3 to 15 months.

For the Division to have an open end contract agreement with a pre-qualified laboratory in Phases I and II, standard procedures and practices must be adhered to with the Department of Finance and Administration of the State to obtain this agreement.

After receipt of the final report in Phase II, the Division will review and either request additional information or approve the report, then the approval report will be mailed to the applicant for utilization in the permanent permit application.



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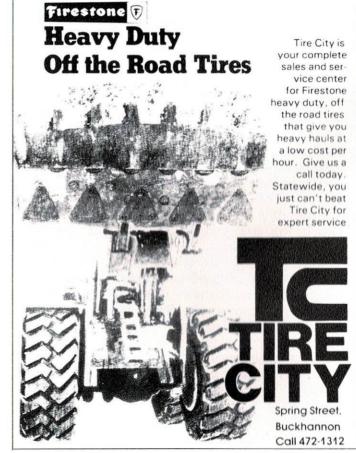
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Board Chairman Charlie Jones had official duties to perform.....



while past Chairman John Faltis was able to relax with daughter Kelly.

Innisbrook meeting features energy

While WVSMRA members enjoyed a few days away from West Virginia's winter, the outlook forecast by the Principal speaker at this year's Semi-Annual Meeting was as bleak as the weather they left in the north.

Some 400 members and guests gathered at Innisbrook, near Tampa, Florida, for the Association's annual mid-winter conclave. Dr. John J. McKetta, a professor of chemical engineering at the University of Texas, and a prominent energy expert, presented his view of the U.S. energy situation, both long and short term. He is pessimistic, to say the least. (For a detailed version of Dr. McKetta's analysis, see page 22.)

Dr. McKetta's message was, in effect, "We are not going to make it." He believes that Americans, principally those charged with administration of government, have waited far too long to take constructive action towards solving energy problems.

Citing specific examples of action and inaction by government which has led to the current state of affairs, Dr. McKetta also outlined a course of action to minimize effects of the onrushing energy crises.

His bottom line, however, remains the same. The American way of life is unalterably changing because of energy shortages, and most of the change will not be for the better.

Also featured on the three-day program was David A. Lockmeyer, of Armco, Inc. Mr. Lockmeyer is Senior Research Engineer with the company's Raw Materials and Ironmaking Section, Research and Technology Division, in Middletown, Ohio.

His presentation, "Coals & Cokemaking," was particularly timely in that 25% of West Virginia coal production is sold for coking purposes.



Nora and Ann.

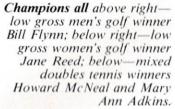


Dwight Keating takes a turn on Either Courtney Moran or the dance floor with daughters Grandpa Lawson Hamilton seems to need a little coaxing.









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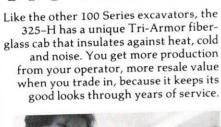


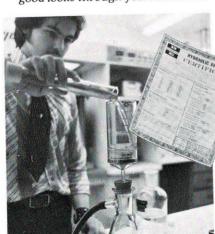
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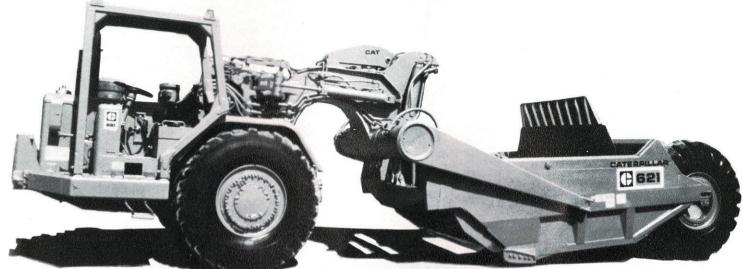
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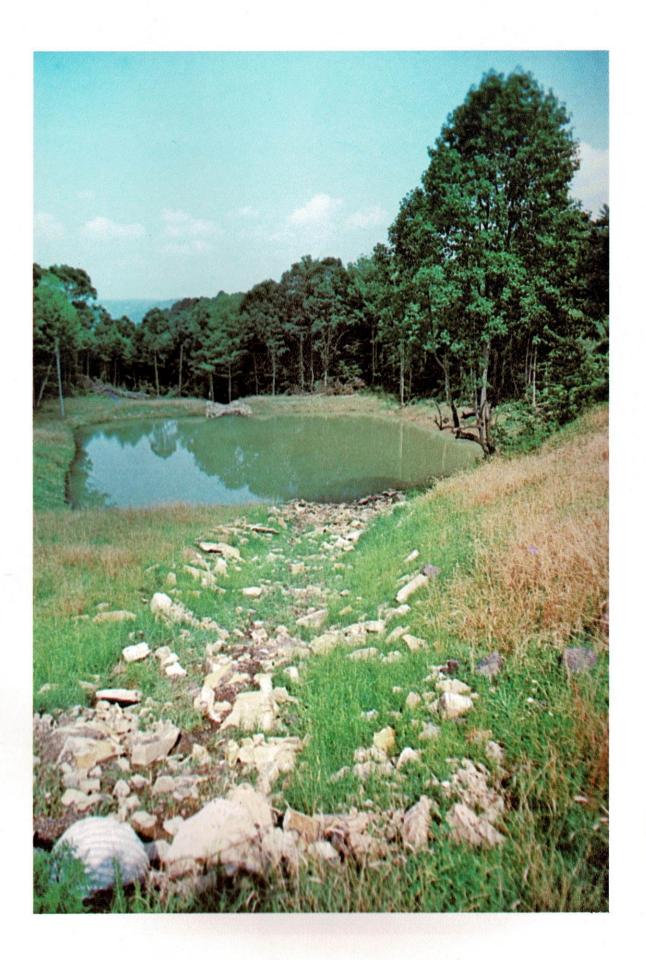
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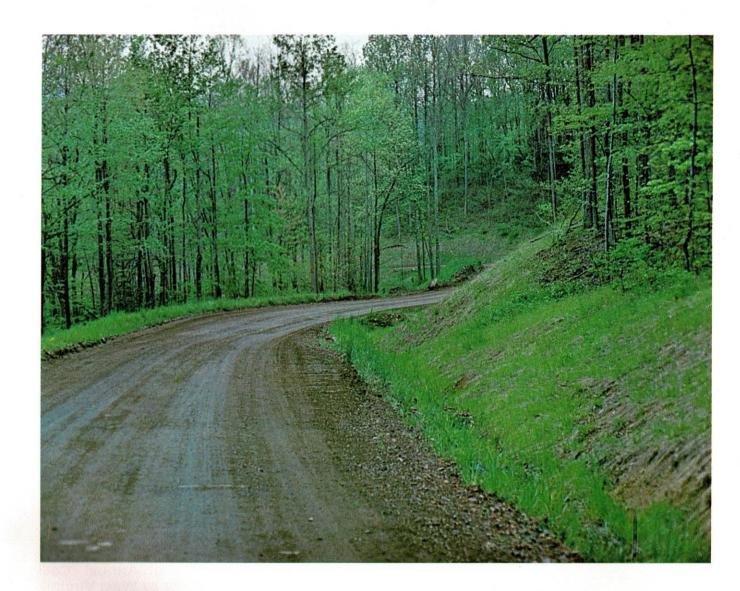












ASSOCIATION NOTEBOOK



New members

The Association welcomed 13 new members into the fold this winter during its Annual Symposium and Semi-Annual Meeting. The addition of four companies to the General Division, and nine to the Associate Division, brings the total numerical strength of the organization to 345.

New members include the following: General — Armco, Inc., Coaltrain Corporation, Stanley Industries, Inc., and Universal Coal Corporation; Associate — Bell Farms Reclamation Services, Briar Mountain Coal & Coke Company, Erwin Supply Company—Division of The Pittston Company, FMC Corporation—Industrial Chemical Group, Hercules Incorporated, L. B. Smith, Inc., Onyx Fuels, Inc., Tallamy, Van Kuren, Gertis & Thielman, and Thompson Bit Service, Inc.

Old directors, new directors

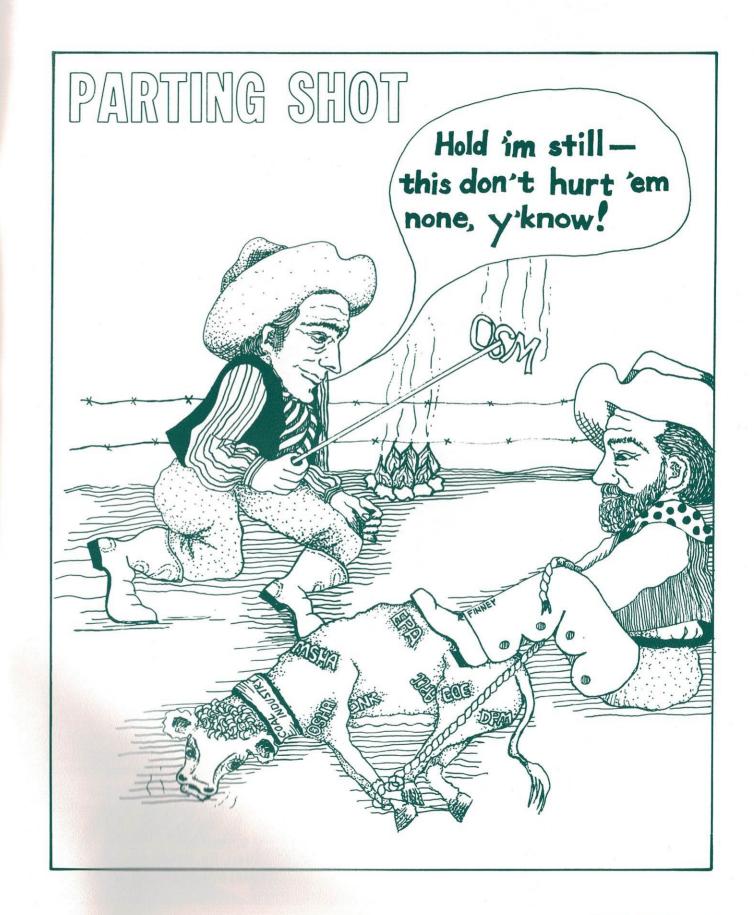
The Board of Directors has reluctantly accepted the resignations of two of its most valued members. Both men are retiring shortly after many years of service to the Association, and to the coal industry in general. C. I. "Chap" Johnston of Rish Equipment Co., is a charter member, having joined the WVSMRA in 1966. H. L. "Mike" Kennedy of H. L. Kennedy Coal Co., has been a member since 1971, and served as Chairman of the Board in 1975-76.

A previous vacancy on the Board has been filled with the addition of Carl DelSignore of Buffalo Coal Co.

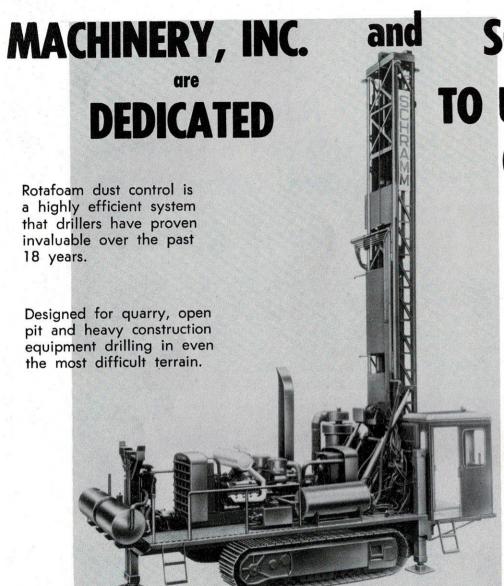
Coal men of the year

Plans are going forward for the Fifth Annual "Coal Men of the Year" Dinner, sponsored by West Virginia University. The 1980 recipients will be honored at a dinner June 6, at the Lakeview Inn and Country Club, in Morgantown, West Virginia. A golf and tennis outing will precede the dinner.

Once again separate awards will be made to outstanding individuals in the fields of surface mining, underground mining, and supply. This year's program will also include the presentation of "Mountaineer Awards" to other industry figures.



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