

"What's Next for Shale Development?"

Richard M. Lieber, President
Rio Blanco Oil Shale Company
Denver, Colorado

Representing, Committee on Oil Shale of the Rocky Mountain Oil and Gas Association.

Good afternoon. I'm pleased to have the opportunity to make this presentation on behalf of the Committee on Oil Shale of the Rocky Mountain Oil and Gas Association. "What's ahead for oil shale" is the subject of my speech. Now what's ahead for oil shale depends on numerous external factors and of course it would take longer than we have here to discuss them all. However, I would like to discuss four factors or issues which are topical and which could greatly effect the future of oil shale.

- (1) The first issue concerns the ability of companies to successfully negotiate with the Synthetic Fuels Corporation for government incentives.
- (2) The second issue concerns the need for leasing legislation for federal oil shale lands.
- (3) The third issue concerns the ability of developer to use water rights in light of recent U.S. Government's actions,
- (4) And finally, industry's ability to successfully work with local governments is the key to a healthy shale oil industry.

Let's take these issues one at a time. First, the SFC.

As most of you are aware, there has been a move by some in Congress to eliminate the SFC or reduce their scope to a research and development program. Let me make the position

of the Committee on Oil Shale clear. We support the continuation of the Synthetics Fuel Corporation as an important vehicle to carry out the purposes of the Energy Security Act. It would be counter productive to development of a Synthetic Fuels industry to eliminate the SFC or reduce its scope at this time.

Unfavorable economic conditions presently preclude private sector development of a commercial synthetic fuels industry without government assistance. It is not currently feasible for private industry alone to bare the risks and capital needs of commercial projects.

Therefore we believe that the SFC is needed to help establish a reliable, predictable, diversified and replicable commercial synthetic fuels foundation - a foundation upon which the private sector could later build, to help meet the energy demand shortfalls created by declining conventional oil production or disruptions in foreign sources of supply.

We further believe that the economics of oil shale are relatively favorable in comparison to other significant synthetic liquid fuel alternatives. The United States has extensive oil shale resources, and if there is to be a synthetic fuel industry, oil shale will play a vital role.

It should be recognized, however, that the public and private perception of the

national energy crisis has tempered significantly since the Energy Security Act was passed. Therefore, a reevaluation of the goals and priorities established at that time is warranted.

The original goal was to achieve a synthetic fuel production capability equivalent to 500,000 barrels per day of crude oil by 1987 and of at least 2,000,000 barrels by 1992. Congress provided \$14.9 billion for the initial Phase I efforts of the Corporation. Congress also intended that the SFC develop a Recommended Comprehensive Strategy, or RCS, by June 30, 1984. The RCS is to recommend and justify further Congressional action for synthetic fuels. This would be the Phase II program which would be funded through the act, if recommended.

The Committee on Oil Shale believes that the goals and time tables should be changed and we make the following specific recommendations.

- (1) The target date for expenditure of the original \$14.9 billion should be extended to June 1987. This extension would provide more time for the SFC to select and to successfully implement a logical progression of project awards in diverse resource and technology areas. Also, the SFC would have more time to establish the base of information needed to support Phase II recommendations. As for us, we'll hold our evaluation on the need of a Phase II program until that time.
- (2) The primary emphasis during the execution of the balance of the Phase I program should remain on commercial scale projects, but the SFC should develop the added flexibility to support semi-works level projects. We believe that a production goal of 100,000 barrels per day

for commercial scale projects, while reserving on the order of \$1-2 billion for support of semi-works projects, would be appropriate.

- (3) A third recommendation would be to make the deals more attractive. The SFC should beef up the rewards. It appears that the rewards now permissible are too low to attract many investors.
- (4) Another recommendation concerns several projects whose negotiations have been dragged out for a very long time without resolution. The SFC should act on these projects.
- (5) The SFC should give a longer lead time for proposals submitted. There are projects that are more of a "grass roots" nature in terms of their present development. The timetable of the recently announced Fourth General Solicitation prevents these projects from submitting a proposal.

We have other recommendations for the SFC but I have presented the most important of these. Suffice it to say that the SFC is presently vital to the establishment of a synfuels industry and we want to see a sound program developed.

Now for my second subject:

The federal government owns 80% of the richest oil shale lands in the United States.

As the laws are presently written, there is a numerical limitation on federal oil shale leases and sizes. Each company can now only own one 5,120-acre lease. Except for federal lease Tract C-a which had special

congressional legislation written for it, overburden from an open pit development and spent shale from surface retorting must stay on the tract; there is no provision for obtaining additional land for waste disposal or plant siting. Also, there are areas in the Green River Oil Shale Formation where a larger tract is required for commercial production because of a lower thickness and grade of deposit.

Notwithstanding the current surplus of oil and gas from conventional sources, and the present low level of oil shale development activity, we believe that it is timely to address the legislative changes necessary to change this situation as soon as possible. We know that the activity in oil shale is low and no company may be prepared to bid for a federal lease at present. However, now's a good time to address these needs -- when there is no crisis.

The Committee on Oil Shale has been working actively to accomplish these changes in law. However, we have not been successful. But let me tell you about our attempt. We joined a cooperative effort of industry, environmentalists, and local and state government to create a comprehensive national oil shale legislation. These groups joined forces in early 1983 to form what was known as the Joint Working Group. This group was formed as a result of the defeat of Senator John Warner's comprehensive oil shale bill in 1982. The Associated Governments of Northwest Colorado and Colorado State government representatives initiated an effort to develop comprehensive oil shale leasing legislation and invited interested groups to participate. This brought together three major industry groups - RMOGA's Committee on Oil Shale, the American Petroleum Institute, and the American Mining Congress; the oil shale states of Colorado, Utah and Wyoming and the counties most likely to be

affected by oil shale development; and three environmental groups - the Friends of the Earth, the Sierra Club and the Two River Citizen Association from Western Colorado who were to represent the environmental community. In addition, the offices of the three-state congressional delegation and the BLM were invited as observers.

Since there was no pressure to rush legislation to Congress, all groups felt there was a better way to resolve problems other than the adversarial way of the past. The time was right for compromise.

The Joint Working Group met for more than a year to draft legislative recommendations. When concerns were expressed by several Washington, D.C. environmental organizations, the Joint Working Group met with these groups in Washington in September 1983 and left believing they had a common understanding agreed upon.

After more than a year of effort, compromise, and meetings a 37 page legislative recommendation was sent to industry, government, and 21 environmental organizations for approval. This draft contained compromises:

- Industry obtained removal of numerical limits on oil shale leases -- there could be more than one lease per company. The permissible tract size was increased to 15,360 acres, and nearby land could be leased for waste disposal.
- State and local governments were given the major role in socio-economic impact mitigation. The governor would be consulted on leasing and his advice followed,

if reasonable, BLM's land planning would reasonably follow local and state laws.

- The acceptance of a "carrying capacity" concept was created to satisfy the environmental community. The federal government would determine whether future leases and other development could be environmentally accommodated before issuing leases.

Local government, the states, and The Committee On Oil Shale approved the draft; API and AMC have not as yet taken a formal position. However, the environmental community has apparently rejected it by choosing not to send a representative to the last meeting. Only 7 of 21 involved environmental groups responded to the proposal. Although there was some support by Colorado based environmental groups, three major Washington based groups rejected it, the Friends of the Earth, the National Wildlife Federation, and the Environmental Policy Institute. By not sending a representative to the last Joint Working Group meeting, the environmental community effectively disavowed itself from the previous year's work and compromises reached. The question remains-how do you negotiate with the environmental community.

The third major concern that I want to address relates to the development of water. Adequate water supplies are obviously required for substantial oil shale development. Plans proposed and policies being implemented by the U.S. Fish and Wildlife Service affect the ability of water rights owners in the Colorado River Basin to use their water. Here's the problem:

- use of privately held water rights may be restricted or completely jeopardized because of arbitrarily defined minimum stream flows devised

to protect endangered fish species. Such de facto acquisition of water would be without compensation and would circumvent legal mechanisms whereby water can be obtained for federal purposes by appropriation, purchase, or condemnation. This could potentially apply to both new and existing water development projects.

- priorities for water use are being defined not as under state law but according to the timing of federal permitting.
- State authority to allocate water rights is being circumvented.
- Water quantities allocated to Colorado and other states under longstanding interstate compacts may be reallocated, and
- water development projects may be required to finance a FWS \$25 million, fifteen year research program.

There appears to be little scientific basis for the minimum flows being proposed.

Members of the Committee on Oil Shale, working through the Colorado Water Congress, have been involved in activities that include meetings with Fish and Wildlife Service personnel to define precisely what the minimum flow proposals are, and how they are to be implemented. Future activities will include (1) defining the impacts of minimum flow proposals on the ability of the State of Colorado to develop its interstate compact entitlements, and (2) a scientific analysis of biological data to define non-flow alternatives which will meet the

goals of the Endangered Species Act as applied in the Colorado Basin and Platte Basin. Non-flow alternatives such as stocking programs, and use of fish ladders or other passageways, could be better alternatives to the procedures being implemented by the U.S. Fish and Wildlife Service.

An open minded, objective attitude on the part of the involved Federal agencies is essential if this issue is to be resolved in a manner that is scientifically sound, and consistent with State water allocation systems and interstate compact agreements.

Recently, as a result of the efforts of the CWC and The Committee on Oil Shale, the Fish and Wildlife Service has established a group to address these technical and policy issues. Federal agencies, the states (Colorado, Utah and Wyoming), water users, and conservation groups are represented. These groups will be working to develop a program which will allow development of water rights allocations while providing protection for the endangered species.

The last concern I'll discuss -- and an important one - is that of socioeconomic impacts and the responsibility of companies and local government to mitigate these impacts. The emergence of an oil shale industry will bring change and growth to the communities involved.

Once commercial production of oil shale is reached, very substantial tax revenues will be generated to assist local communities and the state. The problem has been the gap between the population growth period and the time the projects are on the tax rolls. The crucial question facing local governments and the companies is how the communities will obtain interim financing for the essential services.

There have often been complaints that the companies, states and federal government haven't supplied enough help for mitigating anticipated socioeconomic problems.

Let me take a moment to review the development that has occurred over the past few years and the assistance local government has received. In Rio Blanco County, my company had a short demonstration program and the other federal lessee, Cathedral Bluff Shale Oil Company, started development activities for commercial production. In Garfield County, Exxon and Union had commercial construction activities. The highest employment peak reached as a result of this cumulative effort was just shy of 4000 workers. As you are aware, at the present time, only Union is proceeding with full activities; the other companies are maintaining their properties while reevaluating their plans for commercialization.

The figures on impact assistance are pretty startling. In the ten years since the federal prototype oil shale tracts were leased, Garfield and Rio Blanco Counties have received impact assistance from four major sources - the Oil Shale Trust Fund which was derived from bonus bid money for Tracts C-a and C-b, the Mineral Leasing Fund, -- also received from the federal government, the Energy Impact Assistance Fund derived from the State severance tax, and other assistance from the oil shale companies. We estimate that from these four sources, Garfield and Rio Blanco County have received, directly or indirectly, almost \$300 million dollars. And the direct cash the counties have received from State and federal government have not all been spent. For example, last month, the Grand Junction Sentinel reported that Rio Blanco County still has over 20 million dollars in cash from impact

assistance that they've received. Needless to say, many communities are well positioned to handle future oil shale employees and their impacts on the infrastructure.

Now let's talk about the future dealings of companies and government concerning impact mitigation. A cooperative venture was recently formed to help in this area. The Cumulative Impacts Task Force, or CITF for short, is a joint undertaking of local government, Colorado State Government, and the energy industry. The purpose of the Task Force was to address two problems: (1) front end financing, and (2) multi-project cumulative impacts. A product of this Task Force is a planning tool, -- a computer model, for evaluating alternative assumptions by any participant of the Task Force. We hope that this process will help prevent situations whereby communities require all future infrastructure be built in advance instead of as they're needed. Over-building results in assessed valuation increases, and the county experiences difficulty in meeting their operating and maintenance expenditures when shale projects revise their startup timetables.

We believe that the CITF model will help in identifying future funding problems that that government could encounter. Oil shale activity will present some financial risk to the public sector. But it's equally true that obvious long-term financial benefits are likely to accrue.

Cooperation, in the form of shared risks, shared efforts and shared benefits, seems the best approach -- if not the only reasonable approach -- for achieving the mutual goal of sensibly managed growth.

We hope that we can develop the basis for understanding and cooperation between industry and affected governmental bodies and can aid in

avoiding controversies and disagreements as the parties discuss reasonable, effective and appropriate mitigation measures.

In summary, we have four major concerns:

The first is the Synthetic Fuels Corporation, -- they should rethink their present objectives and strategy.

Concerning comprehensive oil shale leasing legislation -- now is the time for Congress to be considering this. When there's no emergency or crisis, a better job of drafting legislation can be achieved.

Our water problem must be resolved in a scientifically sound manner and consistent with State water allocations systems and interstate compact agreements, and last.

A cooperative approach between industry and government will be the least costly and most effective way to mitigate socio-economic impacts.