

COAL
MARKETING
CONFERENCE

1-23-81

Alaska State Legislature

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Senate

Committee on Resources

MEMO TO: Senate Resources Committee Members
FROM: Robin Halvorsen and Jim Palmer
RE: Staff report on coal conference
DATE: February 10, 1981

Attached is the staff report on the Alaska Coal Marketing Conference held in Anchorage on January 23, 1981.

The report is comprised of minutes taken by staff at the six group discussions held during the conference, transcripts of the opening speeches by Tom Fink and Earl Beistline and notes taken from the luncheon speech by Ian Ross on the "Anatomy of a Superport."

It is our understanding that the Resource Development Council for Alaska will be making additional materials from the conference available in the near future.

Staff Minutes

The purpose of the Alaska Coal Marketing Conference was to find solutions to the problems identified at the coal conference held in Fairbanks in November, which are currently facing the Alaska coal industry. Major problems were identified which must be solved before Alaska can take advantage of its coal resources. PL 95-87, which mandates stringent requirements for coal mining presents great difficulty to the Alaskan coal industry. A two-year window exists at present for developing our coal reserves and developing the foreign market. Foreign markets would likely comprise the greatest extent of any marketing of Alaskan coal.

WORK SESSIONS

Leasing, Royalty, Taxation Policies, moderated by Phil Holdsworth, Alaska Miners Association.

David Rogers of the Department of Natural Resources informed the group that the Commissioner's office is preparing new regulations on coal mining in Alaska. The department has finished its second draft and is expecting to have final regulations drafted in the spring.

During the session there were many comments from the group questioning the wisdom of increasing coal royalty and severance taxes when the market costs for coal are unknown. Some participants also questioned why the state needed the additional funds generated by these taxes on coal especially at this point when the coal industry is just beginning.

Commissioner LeResche explained to the group that the royalty tax rate is a part of the least contract. The purpose of the proposed rental fee is to provide incentive to coal lease holders to produce coal and not to sit on the leases. The Commissioner also stated that the Commissioner of the Department of Natural Resources has the authority at present to reduce royalty rates should that action become necessary to promote production.

The point was raised that businesses must know what the royalty rate will be at a given point, or when it will change, to allow the companies to produce economic forecasts and make investment into coal projects a reality.

Presently Alaska has 102,000 acres under coal lease.

The point was made by one speaker that taxation will not stop coal development in Alaska. The lack of an infrastructure to get the coal to market will prevent Alaskan

coal development. He suggested that a portion of the taxes collected from rentals, royalties and severance fees be targeted to construct this infrastructure.

The group seemed to feel that while taxes were a fact of life, it is extremely important that the level of taxation must not discourage production and the taxation level must be known and fixed.

The current coal leases range in duration from 5 to 20 years. Twenty years is the normal length.

The rental fees (also known as advance royalties) are:

\$ 3 per acre from years 1 - 5

\$ 6 per acre from years 5 - 10

\$ 9 per acre from years 10 - 15

\$12 per acre from years 15 - 20

The royalty tax is based on a percentage of the sale price (Transportation costs, production costs and profit).

Federal Regulations; moderated by Jeff Lowenfels, Attorney General's office.

a. The question was raised at the beginning of this workshop as to whether the state should adopt its own surface mining reclamation program (currently in draft form) or should the state be content to allow the federal government to address the program alone.

The final consensus of the group was that the state should adopt its own program. These comments were made on surface mining reclamation act regulations:

1. Current federal regulations make no inclusion of exemptions for Alaska and could cause severe damage. For example, all top soil is required to be removed from the mining area. This could prove very detrimental where permafrost is involved.
2. A third alternative does exist, namely, we forget about complying, do not prepare state regulations and don't comply with federal regulations. A representative from AMAX stated that he was sure, from past experiences, that severe penalties would be imposed if that action was taken.
3. An additional problem with this law is the provision that no permits may be issued if complaints about the requestor have not been concluded satisfactorily within the jurisdiction of the agency. Guilty until proven innocent: This tactic could be easily used to stop all mining activity in the state.
4. Only .0001% of Alaska has been developed. The group supported the concept of removing the industry from federal controls whenever possible.
5. Variations from regulations can usually be attained and approved as long as minimum environmental standards are met. The question arose as to who makes the minimum standard interpretation?

6. It will be only a matter of time until the federal regulations are imposed. Due to the decision to wait for the report on Alaskan coal from the National Academy of Sciences, the timetable for the need for state regulations is unknown. Our state program has been tentatively approved by the Office of Surface Management, but still requires state legislative approval.

7. If coal production is to be underway by 1985 or 1986, permits need to be obtained and EIS problems need to be solved. Using "modern, streamlined methods," it is estimated by OSM that an EIS will take a full year. A major mining operation will take between 6 to 9 years to get into full production.

b. Comments were made about the Clean Air Act. The consensus was that the Act was too stringent.

8. The reason that there are no more coal fired power plants in Alaska is not the lack of coal, procedures or techniques. The reason is the Clean Air Act. Federal standards require 70% of sulphur be removed from coal. Alaska untreated coal is cleaner than east coast coal is when cleaned to 90%.

9. No variances are allowed in federal clean air regulations.

10. No one is happy with the Clean Air Act, and it is anticipated that it will be attacked vigorously in Congress this year.

11. The Clean Air Act requires that air be cleaned to contain amounts less than found in nature: radiation, mercury in water. Regulations should be backed by calculations and not just numbers.

c. Comments were made on wetlands and coastal zone management. No consensus was reached except that there is a Catch-22 where wetlands are identified. Wetlands are defined as any vegetation which grows in saturated soil.

The only comment made (excluding the Catch-22 situation) was that it was recommended that legislation be pushed which requires approval periods to 60 days for wetland permits issued by the Corps.

State Regulations, moderated by Tom Cook

The discussion of the group centered around the question; "How do state regulations help or hinder coal production and marketing?"

It was pointed out that the present state regulations are very broad and leave a great deal of discretion to the commissioner. The present permit process, it was noted, is often redundant and time consuming. The Coastal Zone Management program especially came into much criticism in this area. A problem also resides with the length of the permit process. It was asserted that some state agencies tend to delay the issuance of permits. This delay often economically hurts the permit requestor.

Representatives from the Department of Natural Resources stated to the group that a coal mining bill will likely be re-introduced in the legislature this year. This legislation will address this permitting problem. They also spoke about the permit reform effort currently being worked on by the Department of Law.

Some suggestions for alleviating the problems identified as a result of the state permitting system were: 1) establish a time limit in which the state must give a decision on permits; 2) establish cooperative agreements between state agencies in the permit process so that one agency can grant the permit; 3) establish a one window system for the permit process so a person can go to only one agency for a permit and 4) there was some sentiment among the group that the Coastal Zone Management program be abolished.

One person did caution the group that the state must be careful in streamlining the permit process in order to avoid the possibility that the state agency might not fulfill its statutory responsibility.

Solving Technological Needs; moderated by Ross Schaff

In this session, technological needs were defined as the entire spectrum of scientific and engineering prerequisites for the coal mining industry. Several specific needs were identified, namely the need to improve the scientific data base related to coal (studies on coal characteristics, field evaluation); mining engineering and mining technological needs (mining in permafrost, transportation methods, gasification studies, seasonality, small scale mining, reclamation research, secondary use of coal waste); technological needs related to water (PL 95-87 requires land and water techniques, groundwater may be a problem, climatology, permafrost); and transportation and storage needs (combustion of coal in ships, coastal zone management, siting of ports, ocean currents, estuarine conditions).

During the course of the discussion information regarding different studies underway, or anticipated, in industry and the university was identified. The consensus was reached that 1) there should be an increase in the state's effort in data collection; 2) the state should fund a coal resource laboratory; 3) the state should help fast-track some projects; and 4) all information and studies should be concentrated in one place, such as the University of Alaska.

Comments during the discussion regarding improved data base:

1. Current level on state funding for geologic mapping is small (\$218,000 specifically for coal). DNR has requested \$1.7 million for geological mapping this year.
2. The University, especially Dr. Rau, has been involved in study of coal characteristics for years and has almost completed statewide studies on all outcrops. Upgrading will be a part of future studies.
3. BLM has large data base for some specific geographic areas. Current information is not sufficient for some of the permit requirements. The principal dollar effort to obtain an information base will be by private industry, but the state could assist with the effort.
4. We can currently export coal for a modest price. But if we use coal to manufacture methanol we can meet several goals - diversify Alaskan economy and help supply Western U.S. with clean liquid fuel.

Comments about reclamation

5. Long range research is needed and is being funded by the federal government on an annual basis. State has not funded any research.
6. Permafrost needs are unknown
7. The studies need to accomplish something.
8. A contract with a producer should be considered and done in conjunction with native group for test mine in permafrost area.

Comments on hydrology

9. We know more about water on the moon than water in Alaska.
10. Many legal problems such as ownership are involved in hydrology implication.
11. A L.D. was placed on arctic research by Henry Kissinger. As a result there is no U.S. policy direction and no dollars are available for research.

Comments about transportation and marketing.

12. There is research being conducted on coal dehydration.
13. The implication of producing methanol is coal production in the amount of several million tons per year. A mine will have to be guaranteed 15 - 20 years of production to catch the market.
14. Permitting is a major hurdle for coal exportation. No dollars for coal development can be anticipated until permits are acquired.
15. Industry will cooperate in data base collection.

Infrastructure Needs, moderated by Chris Gates, Port of Anchorage.

The group first agreed upon a workable definition of "infrastructure." An infrastructure is any action that requires capital investment to develop a resource.

The necessary infrastructure for marketing Alaska's coal can be viewed in three parts: First, the equipment, washing facilities and roads to and from the mine site; second, the transport system from the mine to the port to market such as roads, highway transport, port facilities and; third, the facilities that will receive the shipped coal at its destination and transport it to market.

It was obvious to the group that the construction of this infrastructure will be very costly. There was disagreement as to the methods of financing this construction. Chris Gates, the moderator, suggested that since the cost of putting this infrastructure in place will be so high, the public sector's assistance may be necessary. Many questions were centered on the issue of whether the state government should get involved in the production, transportation and marketing of coal, or whether these operations should be handled by private concerns.

Questions and discussions in this area also focussed on the manner in which government should become involved and at what level this involvement should be. Some of the options discussed were direct investment by the state, tax incentives, co-operative ventures between the state and private corporations and the establishment of an independent non-profit corporation to oversee its construction and aid in its financing.

A major problem identified by the group was the lack of a clear state policy on the development of coal and the necessary infrastructure. Some recommendations in this area were for the state to gather and distribute information on coal production and marketing to aid business and to cut governmental red tape in applying for permits and in adhering to regulations.

There was discussion on who should own the Alaska railroad. The group arrived at no clear recommendation. In addition, the possibility of a joint venture between the United States, Canada and Alaska to build a railroad from Alaska to the midwest was presented for discussion.

Several participants addressed the work group on the problem of community social and economic impact which will result

with the additional work force needed to make Alaskan coal production and marketing a reality.

The group ended its discussion by making three recommendations. First, port feasibility studies should be started. The ports of Seward, Whittier and Anchorage were mentioned. Second, the study should focus on seeing if the port can be used for commodities in addition to coal such as grains and petrochemicals. Third, an Alaska port commission should be established to start these studies.

(Note: As these minutes are typed, a contract has been finalized between DOT/PF and a private engineering firm for study of a "port development and marine commerce system" for the state. Final report is due in February, 1982, and is geared to have recommendations by regions, with projected fiscal requirements included.)

Developing Market Strategies; moderated by Richard Eakins

Market strategies are needed in order to take advantage of the next two years for world-wide development of the Alaskan coal market.

The group's consensus was:

1. Alaska needs to be aggressively marketed.
2. Timing is critical as sellers need stable political and economic conditions such as long-range terms and conditions for licensing, taxation and environmental protection.
3. Regulations need to be streamlined for all businesses and the state should encourage exploration.
4. Design an infrastructure which would not exclude small coal producers from the market.
5. Human resources need to be included in any marketing strategy.
6. Improve market position by looking at instate use of coal.

These comments were made during the discussion

1. Alaska has several competitive disadvantages - few adequate port facilities and false perceptions about Alaska.
2. Pacific rim countries are the best market. The U.S. could supply 40% of the coal needs of the Far East by 1990. Alaskan can compete in that market. Coal can be used to barter - "We'll give you one million tons of coal for 300 year-round jobs." Help diversify Alaskan economy.
3. Some coal production could replace wood in heating homes.

Summary of luncheon speaker

"Anatomy of a Superport -- A Look at Alaska's Needs"

Ian Ross, Chairman, Swan Wooster Engineering

Our appetite for fuel was fostered by the Industrial Revolution and continued to grow over the years. By the end of the 1960's, the use of coal was on the decline. By 1979, many European countries were looking toward ending the use of coal. France, for example, produced 50 million tons of coal per year in 1930. It hoped to reduce that amount to zero in 1990. At the same time, however, consumption of coal in France remained at 50 million tons per year. Fifty years ago, England produced 250 million tons per year of coal. It now produces about 125 million tons per year. Some of these changes are due to easy movement of oil and the conversion of many industrial uses to oil based products.

Currently, oil and gas account for about 60% of the primary energy consumption. Coal accounts for about 30%. Hydro and nuclear power make up the other 10%.

Fear is changing the outlook for coal. People are becoming aware that we can no longer depend on unending oil production. They know we cannot expect a dramatic acceleration in the production of nuclear energy. Even with realistic efforts in energy conservation, our energy appetite will double in five years.

Alaska's infrastructure needs include railroads, ports, and storage facilities. Coal is a relatively low-cost product when compared to grain, etc. Usually the transportation cost of coal exceeds the production costs.

Modern technology has created large transport ships, rapid loading and unloading devices, and ocean facilities. Alaska will require these facilities in order to compete in the world coal markets. If these facilities are built, Alaska will be in a favorable position for marketing coal in the Pacific rim market.

INTRODUCTORY REMARKS OF
TOM FINK, PRESIDENT
RESOURCE DEVELOPMENT COUNCIL FOR ALASKA, INC.
to the
FIRST ALASKA COAL MARKETING CONFERENCE
Anchorage, Alaska
January 23, 1981

Ladies and gentlemen. It is with great pleasure and expectation that I open this conference today. This, I believe, will be a day of education, of constructive effort and accomplishment. It is a day that will be remembered as the formal statewide beginning of a new and positive era in resource development. (Pause)

I'd like you to meet the people who helped cosponsor today's program and who have a stake in its success. Representing the Kenai Peninsula Borough is its new Mayor Stan Thompson, to my far left. Next, the general manager of the Alaska Railroad, Frank Jones. Representing the Anchorage Chamber of Commerce is Bill Miles, Chairman of the Natural Resources Committee. And next is Anchorage's illustrious mayor, George Sullivan. To my right, Lee Wyatt, acting mayor of the Matanuska-Susitna Borough.

Next to Lee is Howard Grey, executive director of the Alaska Miners Association. Our state commissioner of

Commerce and Economic Development is seated next to Howard--Commissioner Chuck Webber. In just a few moments I'll introduce our master of ceremonies, whose School of Mineral Industry at the University of Alaska is also a cosponsor. Let's give a fine hand to these eight organizations for their significant efforts on behalf of developing Alaska's coal resources.

It has long been known that Alaska has vast coal reserves, and long suspected that some great reserves in the state are yet to be located. We know, but it seems to be a well-kept secret, that Alaska contains more than half the nation's coal reserves.

These coals run the classification gamut from the softest lignite up the scale through sub-bituminous to bituminous, all the way to the hardest anthracite.

We also know that the world is undergoing an energy metamorphosis. The era of easy access, physically and politically, to petroleum is over

Consuming societies know they can no longer count on stable, and relatively inexpensive supplies of crude oil to fire their furnaces, drive their vehicles and provide raw materials to their many manufacturing processes. Oil is still with us, and will continue to be...but the relationship between society and oil has changed, and it will forever be so.

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This realization is causing oil consuming nations around the world to seek out new sources of energy and raw materials to replace the oil they can no longer get as economically as they once did--or worse, as a hedge against potential energy shortfalls if political instability continues in oil producing regions.

Thus alternate energy sources...and chief among them coal--particularly the so-called steam producing sub-bituminous and bituminous coals--are being sought.

It sounds easy. Alaska has coal. It has coal near tidewater. It has coal of the quality--or at least we have reason to believe of the quality--the buyers are seeking. Thus all that has to be accomplished is getting the buyers together with the resource owners, and presto, money changes hands...or so it seems.

It may sound easy, but it isn't. Standing between the resource and the purchase order are many obstacles. The first is obviously the knowledge of the quality and quantity of the resource itself. Its location, and proximity to transportation systems is critical. The environmental changes that will occur during extraction are important, and must be considered. In the event there are to be resource conflicts mitigation measures must be designed.

State and federal regulations, ecological and other-wise, will effect the final planning...and if they are too strict, may scuttle a project.

And certainly not to be overlooked is the price. Even though the resource is in demand, the buyers will still strongly consider the competitive price of purchasing from one area as opposed to another. We must be competitive.

This price can be in money alone...or more than likely will be a total consideration, including political stability, term and other social and economic factors.

These, and more items are the reason this session has been called by the Resource Development Council, and the cosponsors and underwriters you see listed on your program.

We at the Resource Development Council feel the topic is most important to the future of Alaska...and as you already know, or will learn here today...it is also most timely.

This is the type program the Resource Development Council enjoys producing. It is a positive program. It is goal oriented. It is a program that will have great effect on both the public and private sectors of our society. It is a meeting not of confrontation and pessimism, but rather cooperation and optimism...with the optimism tempered by

reality--the unfortunate reality that there are some in our state and nation who do not want to see any resources, coal or otherwise, developed in the economic sense.

It is to such persons that the Resource Development Council has undertaken the task of "Pointing the Way" to wise, intelligent use and management of all resources. This, ladies and gentlemen, is a difficult task.

To conduct this public and educational conference, and to promote sensible resource utilization, is the keystone of the Resource Development Council's existence. The Council, better known as R-D-C, is made up of representatives of the business community, organized labor, individuals, and local governments. There are nearly 10,000 Alaskans and friends associated with the Resource Development Council.

RDC consistently speaks, in symposiums such as this, at public hearings, through volunteer work groups, by lobbying, and through news releases, for reasonable development of Alaska.

To those who automatically accuse organizations with "Development" in their title of advocating land ruin (I BELIEVE THE TERM USED IS "RAPE," "RUIN," AND "RUN") the Council points out the follies of "lock-up" policies that result in the inability to utilize natural resources in an orderly, thoughtful manner. We point out that these negative policies result in a lowering of the standard of

living, the foregoing of needed economic and social development...and the ultimate indignity of rampant financial inflation, caused by artificial shortages of materials in the marketplace.

Locking away resources for some unspecified future generation is a luxury this country can no longer afford.

We at the Resource Development Council are justly proud of our record of the past few years. We feel we have been effective in educating Alaskans, and "Outsiders" to some of the opportunities to be found in this sub-continent that is the 49th American state.

We have been influential in causing the State of Alaska to finally declare itself in favor of a positive economic growth policy.

We have monitored and worked toward correcting regulatory abuse, when the result of such governmental action has been to deny public and private rights, when regulations have been used for purposes other than environmental and social protection...or where it is obvious that regulations have been designed and used simply as tools to deny resource development.

The Council has sponsored symposiums, such as this, to explore the development climate in Alaska, and to create a body of knowledge concerning various methods of investing in Alaskan development. These conferences have resulted in positive citizen recommendations that have gone to the state administration, the legislature and Congress and have been utilized by officials.

Finally, I want to point out that the Resource Development Council is not "anti-government." We feel, however, that government must come back to the track of being responsive to the true majority of people rather than smaller special interests. For too long government has catered to the whims of vocal special interest groups, who seem incapable of comprehending our nation's interests and cannot and will not take into consideration the "big picture" before making their demands.

The Economy and Resource Development are not special interests. It is the only method that our people have of lifting themselves above mere existence. To this end we have pledged our time, money and talents...and if you are not yet a member of the Resource Development Council, we ask you to join us. Membership forms are available at this conference.

In the meantime, please listen closely today, and make your feelings known in the various work sessions. The subject of coal is one that will be with us for a long

time...and you will have no better chance to influence the direction of its development in Alaska than you will today at this new beginning. (Pause)

I will now introduce our master of ceremonies, a man who knows more about coal, has done more to see its development realized and who has more enthusiasm for mining in general than any Alaskan we know, Dr. Earl Beistline.

Dr. Beistline is a lifelong Alaskan, born in Juneau, who has spent the last 35 years in the field of mining education. Beginning as an instructor of mining engineering in 1946 at the University of Alaska, Fairbanks, he subsequently became Professor of Mining Engineering, Dean of the School of Mines, Provost of the university's Northern Region, Executive Officer of the Northern Region, Acting Academic Vice President, and now serves as the University's Dean of the School of Mineral Industry.

He holds degrees in mining engineering and an honorary doctor of laws degree from the University of Alaska. He is registered in Alaska as a professional mining engineer and professional land surveyor.

Earl Beistline serves on a number of advisory boards and is a member of many scientific and professional societies.

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He was one of the original founders of the Resource Development Council and has served as an active member of the state board for almost six years. In 1975 Dr. Beistline received the Distinguished Alumnus Award from the University of Alaska. In 1971 he was voted Engineer of the Year for the State of Alaska.

Ladies and Gentlemen, Dr. Earl Beistline.

DRAFT COMMENTS OF DR. EARL BEISTLINE

(for revision as needed by Beistline)

Thank you, Tom. It is exciting for me to be here in a room full of people who are just as interested in marketing Alaska's coal as I am. This conference is a natural outgrowth of a technical conference on coal sponsored by the University of Alaska held in Fairbanks last October. I see many of the people here who attended that conference.

When Paula Easley first discussed with me the need for having a working conference to resolve some of the problems identified during the Fairbanks session, I heartily agreed to help. We recognized the fact that the Alaska administration and legislature would, this year, be faced with a number of decisions crucial to development of Alaska coal.

These will not be easy decisions, and any one of them has the capability of making or breaking the industry.

It is up to us today to provide direction to our state leaders for what must be done.

If you have studied the excellent compilation of papers prepared for this conference--and I hope you have--you will know more about coal in general, and Alaska's coal in particular, than 99% of the population.

Some legislators and administrators admit to needing more information on the various aspects of coal development; therefore, the recommendations coming out of this conference are anxiously being awaited. In fact, after this conference, representatives of the cosponsoring organizations and others will meet with state leaders to discuss our conclusions today. Both the conference recommendations and the papers you now have will be hand-carried to Juneau by the delegation.

We are very fortunate that the legislature is represented here today. The entire Senate Resources Committee, headed by Senator Betty Fahrenkamp is present, and I'd like the members to stand and be recognized. They are:

And from the House of Representatives we have:

The state administration is also well represented. With this cross section of the state administration, the legislature, the federal government, potential coal producers, marketers and transporters, and private citizens interested in the development, I can assure you the work sessions will be lively.

Let me take a moment to explain more about why we're here today. You are all familiar with the recent surge of interest by energy deficient nations--Japan, Taiwan, Korea, Hong Kong and Singapore in the Far East and others in Europe--to increase imports of coal. Because of the strong economic need to reduce oil imports, coal has suddenly

become an attractive alternative, and a number of coal-producing nations are rushing to meet the demand.

Whether the United States and particularly Alaska capture a large portion of this new market depends solely and absolutely on the manner in which the market is approached. The United States is in the position of having to capture the market from existing competitors. If the United States, and particularly Alaska, waits for the market to come to us, our total share will be disappointingly small. If we as a nation attempt to market our coal in an amateurish, ineffective manner, as we have in the past, we deserve to lose our share.

To obtain a substantial share of these new markets, we must first solve some major problems which will be identified in the work sessions. If we do, I am convinced we in Alaska can take advantage of the enormous world market now developing which can make a very substantial contribution to our balance of trade.

The paper by N. G. Wilson-Smith in your study packet makes these observations: "The most common complaint I encountered in the far east was the indifferent marketing activity of the U. S. They said that the Australian, Canadian and other marketing missions were impeccably prepared and led by top executives capable of committing their company. By contrast, the U. S. is producing, with certain obvious and spectacular exceptions, an ill-prepared band of entrepreneurs and producers

offering participation in doubtful development projects or badly structured coal offers."

Wilson-Smith further stated: "Our competitors offer good coal and orderly, demurrage-free export facilities. They follow up their coal sales by providing technical assistance and advice on the combustion of their coal. We offer in turn the promise of being the major coal exporter in the world and of dominating this market for the next 50 years, both in price and in quality. Currently, however, we present the picture of an uncoordinated and disorganized giant struggling with an imperfectly understood problem. The opportunities and challenges are certainly obvious."

It appears to me that the United States east, gulf coast and west coast coal exporting operations have a different set of problems in some regards than we do in Alaska. Their problems may take a long time to solve. Alaska, on the other hand, could look at the problems as opportunities, and set about now to take advantage of them. Alaska with its vast coal reserves could easily become our nation's leading coal exporter, and how to do that is the critical subject of this conference. I say critical because it is understood in the marketplace that most coal purchasing contracts for the next 20-25 years will be negotiated and finalized in the next two or so years. This "marketing window" is open and will soon be closed.

Beistline-5

Prior to the conference, moderators of each of the work sessions talked to a qualified list of advisors to identify the major subjects for discussion. At the beginning of the work sessions, moderators will summarize comments of the advisors, at which time the topics are open for discussion and resolution.

You'll have about an hour and 15 minutes to formalize recommendations in each work session. Then at lunch, after hearing from our keynote speaker, moderators will report the outcome of their work groups.

Please note that no breaks are scheduled throughout the morning. Only ten minutes has been allowed between sessions, and I urge you to report quickly to the next one. Because of the tight time frame, please feel free to visit the restroom or the beverage table set up in the foyer while the groups are in session. Beverage service is not available in the meeting rooms themselves.

At this time we will now break for the sessions on Leasing, Royalty, and Taxation Policies in the _____ Room. Solving Technological Needs will be in the _____ Room. Your name tag indicates the sessions for which you have registered, in case you forgot.

Good luck, work hard, and I'll see you back here at 1:00 sharp.

EARL BEISTLINE - LUNCHEON SESSION

Welcome participants, tell them program will begin as soon as main course is served.

INTRODUCE HEAD TABLE, EXCEPT ROSS = Will check order later. They are Phil Holdsworth, Tom Book, Ross Schaff, Dick Eakins, Jeff Lowelfels, Chris Gates, Tom Fink, Chuck Webber and John Sims.

INTRODUCTION OF IAN ROSS

Our keynote speaker comes to us armed with a background rich in experience of the kind we believe to be needed in Alaska. A mechanical engineer himself, he is a member of various engineering associations in North America and Europe and is Chairman of the Swan Wooster Group of Companies headquartered in Vancouver, British Columbia.

The Swan Wooster Group has a staff of 600 professionals and technicians active in major port and harbor bulk-handling projects in North America as well as 12 or 13 in other countries of the world. These include the Roberts Bank, Vancouver and Richards Bay, South Africa ports which I'm sure we'll hear about today.

Mr. Ross has been with his company for 30 years, serving as president beginning in 1966 and Chairman and president in 1971. He is also a member of the board of directors of Sandwell and Company and Williams Brothers Canada Limited, gas and oil pipeline consultants.

Mr. Ross' topic is ANATOMY OF A SUPERPORT: A LOOK AT ALASKA'S NEEDS. The topic alone could be the subject of an entire symposium. Such a title suggests a presumption of need of such facilities in Alaska to support coal marketing outside the state. And should such facilities be shared by other industries for transloading oil and gas products, minerals and agricultural products, for example.

BEISTLINE--Luncheon, page 2

It is with extreme pleasure that I introduce a gentleman who is eminently qualified to discuss, in the time we have allotted, Alaska's bulk port needs. Ladies and gentlemen, let's give an Alaskan welcome to Mr. Ian Ross.

AFTER ROSS' PRESENTATION, each moderator is called to microphone to report results of his work session.

CLOSING REMARKS; Chuck Webber will say a few words, then call on his new mining director John Sims to add to them.

THE END



Resource Development Council
for Alaska, Inc.

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ALASKA COAL MARKETING CONFERENCE

proceedings

January 23, 1981
Anchorage Westward Hilton
Anchorage, Alaska

Coordinated by
The Resource Development Council for Alaska, Inc.

Cosponsors:

- Alaska Miners Association
- State of Alaska, Department of Commerce and Economic Development
- University of Alaska, School of Mineral Industry
- Matanuska-Susitna Borough
- Municipality of Anchorage
- Kenai Peninsula Borough
- The Alaska Railroad
- Anchorage Chamber of Commerce

As part of its continuing effort to create a climate in which industry can grow and flourish in Alaska, the Resource Development Council is proud to present this conference with the dedicated assistance of cosponsors listed and organizations which have underwritten its cost.

CONFERENCE UNDERWRITERS

Without the generous support of the individuals, businesses and labor organizations listed herein, it would not have been possible to hold this conference. The underwriters should be commended for their commitment to creation of a stable economy and orderly development of Alaska's resources. They are:

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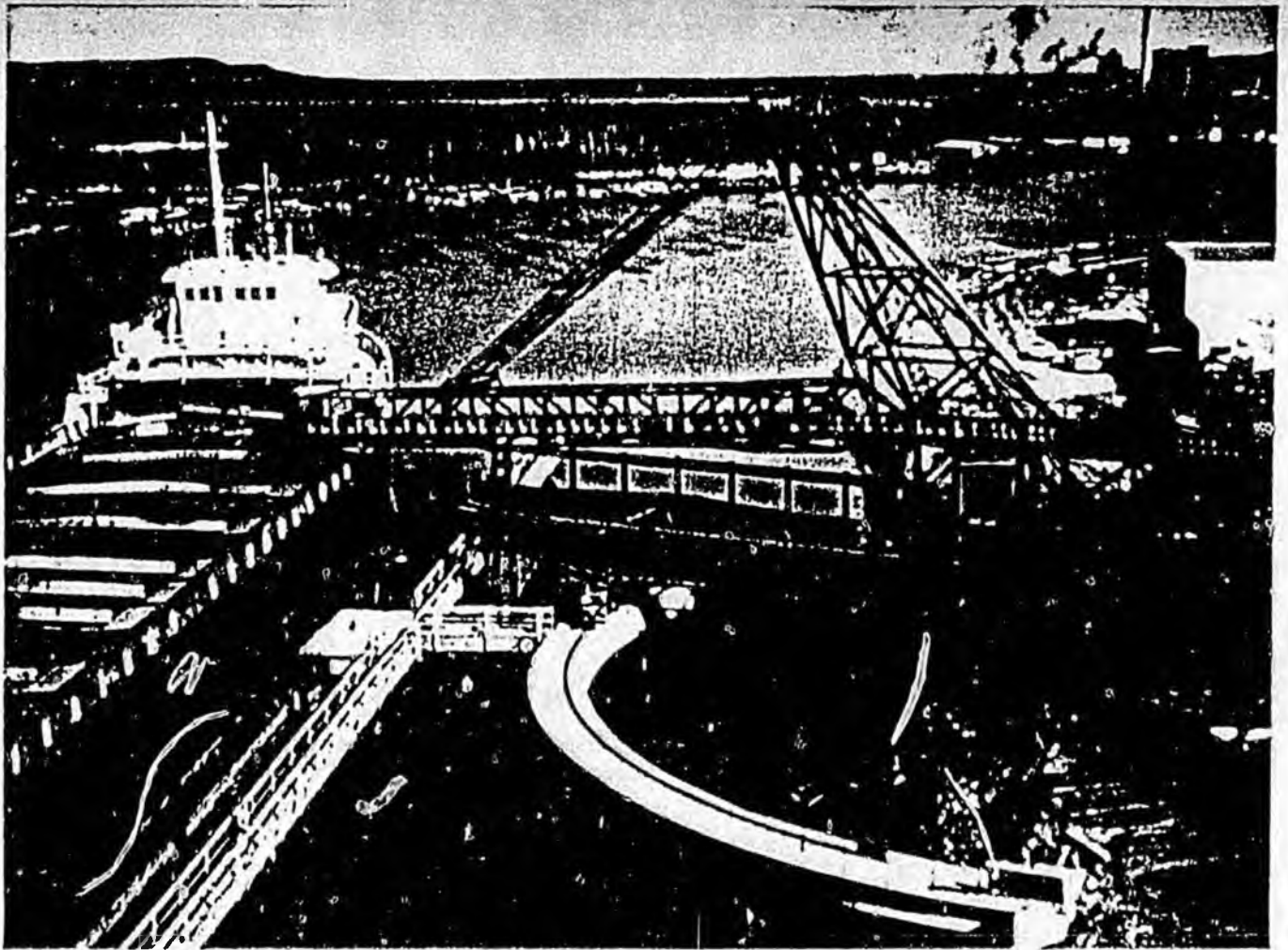
Teachers Union, Local 2404

Teamsters, Local 959

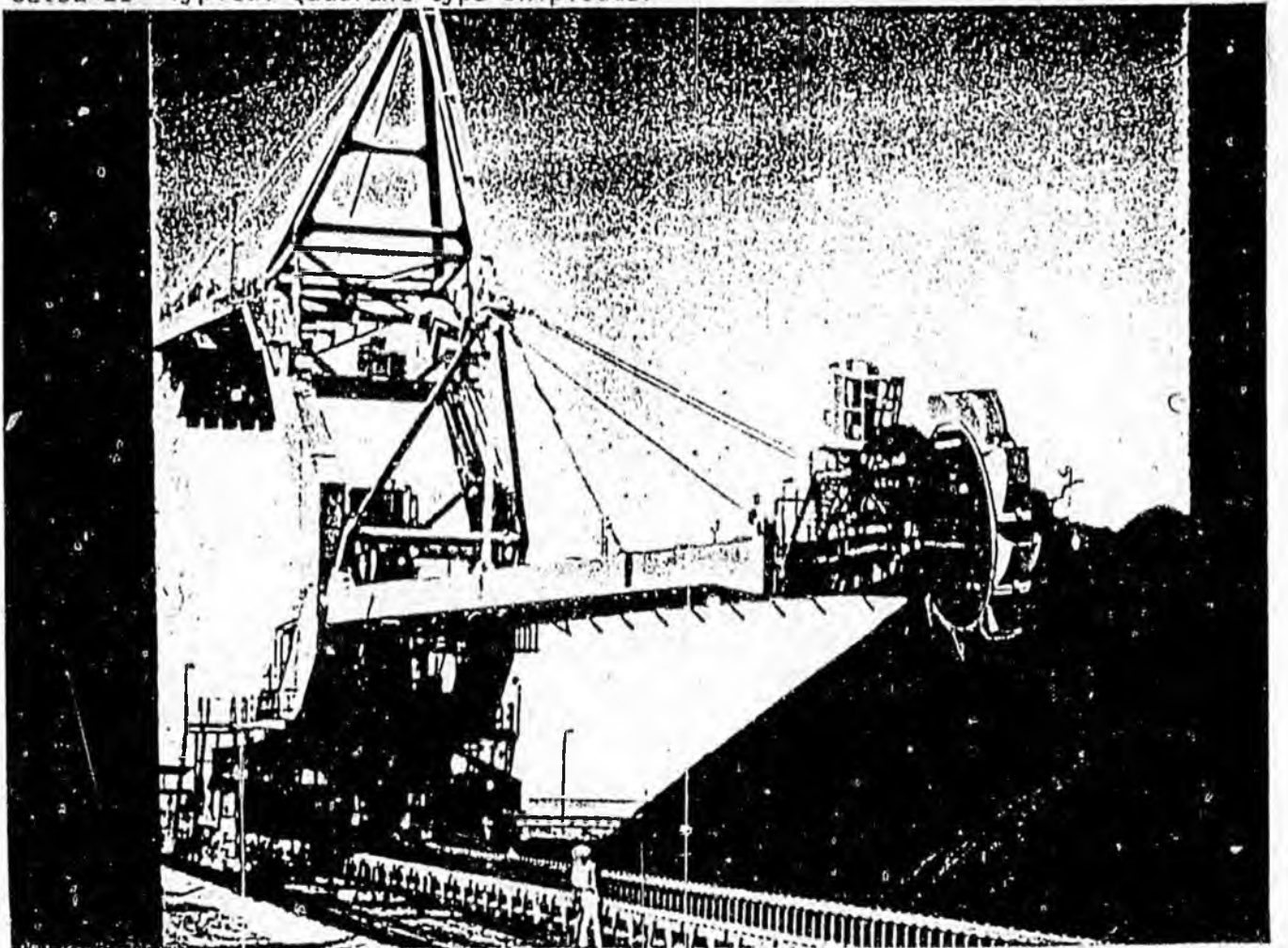
PROCEEDINGS
OF THE
ALASKA COAL MARKETING CONFERENCE

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SLIDE 21 Typical Quadrant type Shiploader



SLIDE 19 The Track Mounted Bucket Wheel Stacker Reclaimer

INTRODUCTORY REMARKS OF
TOM FINK, PRESIDENT
RESOURCE DEVELOPMENT COUNCIL FOR ALASKA, INC.

to the
FIRST ALASKA COAL MARKETING CONFERENCE

Anchorage, Alaska

January 23, 1981

Ladies and gentlemen. It is with great pleasure and expectation that I open this conference today. This, I believe, will be a day of education, of constructive effort and accomplishment. It is a day that will be remembered as the formal statewide beginning of a new and positive era in resource development.

I'd like you to meet the people who helped cosponsor today's program and who have a stake in its success. Representing the Kenai Peninsula Borough is its new Mayor Stan Thompson, to my far left. Next, the general manager of the Alaska Railroad, Frank Jones. Representing the Anchorage Chamber of Commerce is Bill Miles, Chairman of the Natural Resources Committee. And next is Anchorage's illustrious mayor, George Sullivan. To my right, Lee Wyatt, acting mayor of the Matanuska-Susitna Borough.

Next to Lee is Howard Grey, executive director of the Alaska Miners Association. Our state commissioner of Commerce and Economic Development is seated next to Howard--Commissioner Chuck Webber. In just a few moments I'll introduce our master of ceremonies, whose School of Mineral Industry at the University of Alaska is also a co-sponsor. Let's give a fine hand to these eight organizations for their significant efforts on behalf of developing Alaska's coal resources.

It has long been known that Alaska has vast coal reserves, and long suspected that some great reserves in the state are yet to be located. We know, but it seems to be a well-kept secret, that Alaska contains more than half the nation's coal reserves.

These coals run the classification gamut from the softest lignite up the scale through sub-bituminous to bituminous, all the way to the hardest anthracite.

We also know that the world is undergoing an energy metamorphosis. The era of easy access, physically and politically, to petroleum is over.

Consuming societies know they can no longer count on stable, and relatively inexpensive supplies of crude oil to fire their furnaces, drive their vehicles and provide raw materials to their many manufacturing processes. Oil is still with us, and will continue to be...but the relationship between society and oil has changed, and it will forever be so.

This realization is causing oil consuming nations around the world to seek out new sources of energy and raw material to replace the oil they can no longer get as economically as they once did--or worse, as a hedge against potential energy shortfalls if political instability continues in oil producing regions.

Thus, alternate energy sources...and chief among them coal, particularly the so-called steam producing sub-bituminous and bituminous coals, are being sought.

It sounds easy. Alaska has coal. It has coal near tide-water. It has coal of the quality--or at least we have reason to believe of the quality--the buyers are seeking. Thus all that has to be accomplished is getting the buyers together with the resource owners, and presto, money changes hands...or so it seems.

It may sound easy, but it isn't. Standing between the resource and the purchase order are many obstacles. The first is obviously the knowledge of the quality and quantity of the resource itself. Its location, and proximity to transportation systems is critical. The environmental changes that will occur during extraction are important, and must be considered. In the event there are to be resource conflicts mitigation measures must be designed.

State and federal regulations, ecological and otherwise, will affect the final planning...and if they are too strict, may scuttle a project.

And certainly not to be overlooked is the price. Even though the resource is in demand, the buyers will still strongly consider the competitive price of purchasing from one area as opposed to another. We must be competitive.

This price can be in money alone...or more than likely will be a total consideration, including political stability, term and other social and economic factors.

These, and more items are the reason this session has been called by the Resource Development Council, and the co-sponsors and underwriters you see listed on your program.

We at the Resource Development Council feel the topic is most important to the future of Alaska...and as you already know, or will learn here today...it is also most timely.

This is the type program the Resource Development Council enjoys producing. It is a positive program. It is goal oriented. It is a program that will have great effect on both the public and private sectors of our society. It is a meeting not of confrontation and pessimism, but rather cooperation and optimism...with the optimism tempered by reality--the unfortunate reality that there are some in our state and nation who do not want to see any more resources, coal or otherwise, developed in the economic sense.

It is to such persons that the Resource Development Council has undertaken the task of "Pointing the Way" to wise, intelligent use and management of all resources. This, ladies and gentlemen, is a difficult task.

To conduct this public and educational conference, and to promote sensible resource utilization, is the keystone of the Resource Development Council's existence. The Council, better known as R-D-C, is made up of representatives of the business community, organized labor, individuals, and local governments. There are nearly 10,000 Alaskans and friends associated with the Resource Development Council.

RDC consistently speaks, in symposiums such as this, at public hearings, through volunteer work groups, by lobbying, and through news releases, for reasonable development of Alaska.

To those who automatically accuse organizations with "Development" in their title of advocating land ruin (I believe the term used is "rape," "ruin," and "run") the Council points out the follies of "lock-up" policies that result in the inability to utilize natural resources in an orderly, thoughtful manner. We point out that these negative policies result in a lowering of the standard of living, the foregoing of needed economic and social development...and the ultimate indignity of rampant financial inflation, caused by artificial shortages of materials in the marketplace.

Locking away resources for some unspecified future generation is a luxury this country can no longer afford.

We at the Resource Development Council are justly proud of our record of the past few years. We feel we have been effective in educating Alaskans, and "Outsiders" to some of the opportunities to be found in this sub-continent that is the 49th American state.

We have been influential in causing the State of Alaska to finally declare itself in favor of a positive economic growth policy.

We have monitored and worked toward correcting regulatory abuse, when the result of such governmental action has been to deny public and private rights, when regulations have been used for purpose other than environmental and social protection...or where it is obvious that regulations have been designed and used simply as tools to deny resource development.

The Council has sponsored symposiums, such as this, to explore the development climate in Alaska, and to create a body of knowledge concerning various methods of investing in Alaskan development. These conferences have resulted in positive citizen recommendations that have gone to the state administration, the legislature and Congress and have been utilized by officials.

Finally, I want to point out that the Resource Development Council is not "anti-government." We feel, however, that government must come back to the tract of being responsive to the true majority of people rather than small special interests. For too long government has catered to the whims of vocal special interest groups, who seem incapable of comprehending our nation's interests and cannot and will not bring into consideration the "big picture" before making their decisions.

The Economy and Resource Development are not special interests. It is the only method that our people have of lifting themselves above mere existence. To this end we have pledged our time, money and talents...and if you are not yet a member of the Resource Development Council, we ask you to join us. Membership forms are available at this conference.

In the meantime, please listen closely today, and make your feelings known in the various work sessions. The subject of coal is one that will be with us for a long time...and you will have no better chance to influence the direction of its development in Alaska than you will today at this new beginning.

I will now introduce our master of ceremonies, a man who knows more about coal, has done more to see its development realized and who has more enthusiasm for mining in general than any Alaskan we know, Dr. Earl Beistline.

Dr. Beistline is a lifelong Alaskan, born in Juneau, who has spent the last 35 years in the field of mining education. Beginning as an instructor of mining engineering in 1946 at the University of Alaska, Fairbanks, he subsequently became Professor of Mining Engineering, Dean of the School of Mines, Provost of the university's Northern Region, Executive Officer of the Northern Region, Acting Academic Vice President, and now serves as the University's Dean of the School of Mineral Industry.

He holds degrees in mining engineering and an honorary doctors of laws degree from the University of Alaska. He is registered in Alaska as a professional mining engineer and professional land surveyor.

Earl Beistline serves on a number of advisory boards and is a member of many scientific and professional societies.

He was one of the original founders of the Resource Development Council and has served as an active member of the state board for almost six years. In 1975 Dr. Beistline received the Distinguished Alumnus Award from the University of Alaska. In 1971 he was voted Engineer of the Year for the State of Alaska.

Ladies and Gentlemen, Dr. Earl Beistline.

COMMENTS OF DR. EARL H. BEISTLINE

Master of Ceremonies

Thank you Tom for an excellent introductory presentation. Your remarks greatly stimulate interest in the topic "Marketing of Coal" that is of major importance to Alaska, the State and the Nation.

This conference is a natural outgrowth of a technical conference on coal, "Focus on Alaska's Coal," sponsored by the University of Alaska, Fairbanks; Division of Minerals and Energy Management, State of Alaska; Division of Energy and Power Development, State of Alaska; and Mining and Mineral Resources Research Institute, Office of Surface Mining held in Fairbanks last October.

I am pleased to observe the great interest in this conference by many of you who attended the Fairbanks Conference as well as those who are interested in Alaska's coal but did not have the opportunity to attend the 1980 Conference.

When Paula Easley, Executive Director of the Resource Development Council, first discussed with me the need for having a working conference to resolve some of the problems identified during the Fairbanks session, I heartily agreed to help. Paula Easley and her staff have done an outstanding job of arranging this timely conference in a relatively short period of time and I congratulate them for their good work.

Recognized was the fact that the state administration and legislature would, this year, be faced with a number of decisions crucial to development of Alaska coal.

These will not be easy decisions, and any one of them has the capability of making or breaking the industry and accordingly our task today is to be as helpful as possible in providing direction to our state leaders for what must be done.

If you have studied the excellent compilation of papers prepared for this conference--and I hope you have--you will know more about coal in general, and Alaska's coal in particular, than 99% of the population.

Some legislators and administrators admit to needing more information on the various aspects of coal development; therefore, the recommendations coming out of this conference are anxiously being awaited. In fact, after this conference, representatives of the co-sponsoring organizations and others will meet with state leaders to discuss our conclusions today. Both the conference recommendations and the papers you now have will be hand-carried to Juneau by the delegation.

We are very fortunate that the legislature is represented here today. The Senate Resources Committee, headed by Senator Bettye Fahrenkamp is well represented today. Because of an urgent matter, Senator Fahrenkamp cannot be with us today but you can be sure that her eyes and ears and her positive attitude is present. I'd like the members to stand and be recognized as well as other members with us today from the House of Representatives.

The state administration is also well represented. With this cross section of the state administration, the legislature, the federal government, potential coal producers, marketers and transporters, and private citizens interested in the development, I can assure you the work sessions will be lively.

Let me take a moment to explain more about why we're here today. You are all familiar with the recent surge of interest by energy deficient nations--Japan, Taiwan, Korea, Hong Kong and Singapore in the Far East and others in Europe--to increase imports of coal. Because of the strong economic need to reduce oil imports, coal has suddenly become an attractive alternative, and a number of coal-producing nations are rushing to meet the demand.

Whether the United States and particularly Alaska capture a large portion of this new market depends to a great extent on the manner in which the market is approached. The United States is in a position of having to capture the market from existing competitors. If the United States, and particularly Alaska, waits for the market to come to us, our total share will be disappointingly small. If we as a nation attempt to market our coal in an amateurish, ineffective manner, we deserve to lose our share.

To obtain a substantial share of these new markets, we must first solve some major problems which will be identified in the work sessions. If we do, I am convinced we in Alaska can take advantage of the enormous world market now developing which can make a very substantial contribution to our balance of trade.

As an example of one type of problem, I am taking the liberty of giving a brief status report on a problem that involves federal regulations and one that I am sure will be discussed by Jeff Lowenfels' committee on federal regulations.

The topic is Public Law 95-87 titled "Surface Mining Control and Reclamation Act of 1977" which has a major section--Title V, Control of the Environmental Impacts of Surface Coal Mining.

This law requires that states set up their regulations to accomplish the objectives of the federal law and if not done timely and in compliance with federal law, the federal law will become the state law.

Facets of the Public Law are in litigation in courts. However, it behooves Alaska to move ahead on such state regulations so as not to be caught in a trap that could be detrimental to Alaska's coal. Accordingly, the following quotations are given from a letter written January 22, 1981 to Governor Hammond by the Advisory Committee he appointed to consider this problem.

"This letter is to report to you the committee's unanimous recommendation that your administration make every attempt possible to expeditiously adopt a state program which is acceptable to OCM.

"We have concluded that the adoption of a program similar to the one presented to us at our January 20, 1980 meeting should take some priority in your administration.

"It is our conclusion that the adoption of a state program rather than implementation of a federally developed program will best give the state the flexibility to effectively control coal mining operations within any of the several potential coal mining regions in the State of Alaska.

"The extent that regulatory certainty is needed before the coal industry can further develop Alaska's coal potential clearly indicates the need to act now."

The paper by N. G. Wilson-Smith in your study packet makes these observations: "The most common complaint I encountered in the Far East was the indifferent marketing activity of the U. S. They said that the Australian, Canadian and other marketing missions were impeccably prepared and led by top executives capable of committing their company. By contrast, the U. S. is producing, with certain obvious and spectacular exceptions, an ill-prepared band of entrepreneurs and producers offering participation in doubtful development projects or badly structured coal offers."

Wilson-Smith further stated: "Our competitors offer good coal and orderly, demurrage-free export facilities. They follow up their coal sales by providing technical assistance and advice on the combustion of their coal. We offer in turn the promise of being the major coal exporter in the world and of dominating this market for the next 50 years, both in price and in quality. Currently, however, we present the picture of an uncoordinated and disorganized giant struggling with an imperfectly understood problem. The opportunities and challenges are certainly obvious."

It appears to me that the United States' east, gulf coast and west coast coal exporting operations have a different set of problems in some regards than we do in Alaska. Their problems may take a long time to solve. Alaska, on the other hand, could look at the problems as opportunities, and set about now to take advantage of them.

Alaska with its vast coal reserves could easily become our nation's leading coal exporter, and how to do that is the critical subject of this conference. I say critical because it is understood in the marketplace that most coal purchasing contracts for the next 20-25 years will be negotiated and finalized in the next two or so years. This "marketing window" is open and may soon be closed.

Prior to the conference, moderators of each of the work sessions talked to a qualified list of advisors to identify the major subjects for discussion. At the beginning of the work sessions, moderators will summarize comments of the advisors, at which time the topics are open for discussion and resolution.

You'll have about an hour and 15 minutes to formalize recommendations in each work session. Then, at lunch, after hearing from our keynote speaker, moderators will report the outcome of their work groups.

Please note that no breaks are scheduled throughout the morning. Only ten minutes has been allowed between sessions, and I urge you to report quickly to the next one. Because of the tight time frame, please feel free to visit the rest room or the beverage table set up in the foyer while the groups are in session. Beverage service is not available in the meeting rooms themselves.

Moderators have their jobs cut out for them--to achieve their objectives in the allotted time. As you can see "time is of the essence."

At this time, we will now break for the sessions. Your program shows sessions, times and rooms.

Good luck, work hard, and I'm looking forward to the stimulating results of your deliberations.

Please be back here at 1:00 pm sharp for the luncheon and keynote address - "Anatomy of a Superport--A look at Alaska's Needs" by Ian Ross.

INTRODUCTION OF IAN ROSS

Our keynote speaker comes to us armed with a background rich in experience of the kind we believe to be needed in Alaska. A mechanical engineer himself, he is a member of various engineering associations in North America and Europe and is Chairman of the Swan Wooster Group of Companies headquartered in Vancouver, British Columbia.

The Swan Wooster Group has a staff of 600 professionals and technicians active in major port and harbor bulk-handling projects in North America as well as 12 or 13 in other countries of the world. These include the Roberts Bank, Vancouver and Richards Bay, South Africa ports which I'm sure we'll hear about today.

Mr. Ross has been with his company for 30 years, serving as president beginning in 1966 and Chairman and president in 1971. He is also a member of the board of directors of Sandwell and Company and Williams Brothers Canada Limited, gas and oil pipeline consultants.

Mr. Ross' topic is ANATOMY OF A SUPERPORT: A LOOK AT ALASKA'S NEEDS. The topic alone could be the subject of an entire symposium. Such a title suggests a presumption of need of such facilities in Alaska to support coal marketing outside the state. And should such facilities be shared by other industries for transloading oil and oil and gas products, minerals and agricultural products, for example.

It is with extreme pleasure that I introduce a gentleman who is eminently qualified to discuss, in the time we have allotted, Alaska's bulk port needs.

Ladies and gentlemen, let's give an Alaskan welcome to Mr. Ian Ross.

THE ALASKA COAL MARKETING CONFERENCE

JANUARY 23, 1981

ANCHORAGE, ALASKA

Notes from the Luncheon Address

By Ian S. Ross

Chairman: Swan Wooster Engineering Inc.

Sponsored by

THE RESOURCE DEVELOPMENT COUNCIL FOR ALASKA, INC.

As background, I would like to briefly comment on a few historical facts concerning coal and then look at what has happened during the past decade or so and what we forecast could occur over the next two decades.

Following this I have prepared some slides to show where Alaska might fit into the world coal trading pattern, followed by details of some of the larger coal terminals and then a brief description of the major machinery components which would form the nucleus of a world scale coal terminal for Alaska, what it might cost, and the impact of a bulk terminal on the community.

One can say that the main reason for the evolution of coal production is that mankind developed a great appetite for energy. This appetite was fostered as man utilised tools to amplify human effort, harnessed gravity through water flow, captured fire and utilised heat and so on. This fire business started many years ago, and eventually moved to coal, particularly in the years leading directly to the feasibility in energy terms of the industrial revolution. This revolution created an appetite for more and more energy which in due course became satisfied by oil, relatively easy to move around the world, but remarkably concentrated as to its sources. That was of course the ultimate strength of the Organisation of Petroleum Exporting Countries (OPEC) - its concentration within that a dangerously unifying thread of Islam.

But coal's role was historically important - without its discovery, production and utilisation, the world would have stood still rather than advanced technically and economically but by the end of the 1960's the common view was that coal was an industry in decline even to the point that many countries, historically important as coal producers, were looking for ways to quietly and peacefully end their coal industries.

Indeed some still are, as an example France, where only 15 years ago France produced 50 million tons of coal a year but as a matter of policy this dropped by the progressive closing of pits to less than 20 million tons today and by 1990 this will be halved, and the end of the century is likely to see this coal production finished. This is more remarkable when at the same time the annual consumption of coal in France is now close to 50 million tons so that imports have had to compensate totally for the domestic production down turn.

Note: Slides Not Included in These Proceedings

Similar events are, and have taken place, in the U.K. Fifty years ago Britain produced 250 million tons of coal a year and this has steadily gone down so that today the level is about 50% or 125 million tons.

Pendulums swing, but who could have foreseen today the quite extreme statements from those in high places who say that coal is now the saviour of mankind, coal is the West's ace in the hole and so on.

Let us look for a minute at world energy consumption that is primary energy which is the consumption of energy for the first time. Today oil and gas account for about 60% of the world's primary energy needs, coal about 30% and the remaining 10% a combination of hydro and nuclear. Now a truly interesting and extraordinary fact underlying that division into energy sectors is transportation. Oil and gas have always moved to markets but coal has tended to bring consumption to the locality of its production.

After the decline of coal, principally steam or thermal coal towards the end of the 1960's the principal coal carried at that time on the oceans of the world was coking or metallurgical coal to be used in the production of steel. There were, of course, and still are major inland movements of coal - Eastern U.S.A. to Canada, Poland to its neighbours, etc., but very little steam coal was moved by ocean transport during this time. On the matter of coking coal the forecast world growth by 1990 is not expected to be dramatic it is only expected to be about 10% due to increased blast furnace efficiency requiring less coal per ton of iron produced, as well as further movement toward direct reduction of iron ore eliminating, in this case, the need for coal. One other interesting point is with regard to ship size concerning coking coal and this lies in the fact that coking coal has to be blended with other coals which is generally done at the blast furnace or importers site, thus limiting the tonnage of any one type of coal that can be accepted by the buyer. This in turn coupled in some cases by Panama Canal limits, means that some of our older coal exporting ports, which currently have 40' or so draft, that unless rebuilt will be less efficient as to the larger vessel size which will be required by the future steam coal trade.

In 1980 some 230 million tons of coal moved by sea, including coking coal, but only representing about 5% of the total annual world coal production of 2.5 billion tons, however in that same period the quantity of oil and gas moved by tanker from production areas to countries of utilisation was about 60% of total world production of oil and gas.

Now let us see how the expert forecasters of this world would have us shape our energy appetite, say over the next 20 years.

By any criteria this is the critical period. Why?

Because we have fear, not simply the matter of Islam or Iran but there is also the fear that no longer can we afford to have a bland reliance on the ongoing availability of oil.

Crude oil reserves are now at a level which must quite soon curtail the increase of oil production so that by the year 2000 we expect a plateau in oil production with a probable tailing off through the first half of next century.

So what of nuclear? It is clear to me that unquestionably we need to forge ahead on nuclear fission and fusion technology by applying it massively to the

base load production of electricity but even at a maximum rate of investment in such plants and full contract or commitment, we cannot expect to see any dramatic acceleration in nuclear energy production in percentage terms this side of the year 2000.

Much is talked today about solar energy and biomass, geothermal heat, tidal harness and wind. I cannot talk today adequately in the time allowed about these other alternatives except to give my view that these too must all be pursued and brought on to our energy menu.

And so I want to come back to coal.

We have seen the probability of a plateau for oil and gas on a global basis. The overall growth of our energy appetite, even allowing realistically for a successful effort at energy conservation will still grow at around 2.5% per year which means doubling about every 35 years, so that word 'massive' for coal's growth is not carelessly used.

Over the past 20 years the total global growth in annual coal production of coal was only 600 million tons including export and domestic coal. Currently about 230 tons move on the oceans in the form of export coal and now we are looking at an increase in this export coal over the next 20 years of 3 to 4 times that figure to conservatively 600 to 800 million tons but some groups are estimating that this figure can be as high as 1 billion tons a year by the end of the century.

Whichever we take, it is still a massive rate of growth but should not be confused with total world production, - this is the increase in volume to be moved by deep sea vessels to foreign markets.

Of this growth a significant tonnage will need the new infrastructure of rail, port and shipping to be moved across oceans to satisfy demands in distant countries. Coal will move from the U.S.A., Australia, Canada and South Africa to Japan and the Far East, to Europe, and of course coal from quite new coal producers such as Botswana, Mozambique, Nigeria, Colombia, Indonesia and from here in Alaska. I should mention that in the case of Colombia, in South America, they are getting ready to design a bulk coal terminal to export 15 m.t.p.y. rising to 30 m.t.p.y., this is an Exxon development.

Whether we take the low forecast for coal growth or the high figure the results of the required world-wide effort from the coal industry will have to be decisive if we are to satisfy our global energy appetite and I should mention that there are some very decisive steps being taken now in the way of new facilities by the importing countries.

The following slides show some of the world trends in coal exports, some of the major coal exporting and importing ports and where Alaska fits into this global scene from a transportation viewpoint.

It might be worth mentioning in the matter of transportation of coal to world markets that the total transportation cost (land, terminals and ocean) often exceeds the production cost of the coal. Therefore, one can readily see the need for all segments of the transportation system, including the port, to be highly efficient in operation.

SLIDE 1

The first slide indicates the relationship of Alaska to the world seaborne coal trade with the thickness of the lines in proportion to the annual volume of seaborne coal moved from the producing countries to receiving countries.

These are 1980 volumes and this picture is expected to change dramatically over the next 10 years. It is also interesting to note coal trade between the West coast of this continent to Europe - a coal trade that only a few years ago one would have said was impossible, and I gather that you have recently had enquiries from Europe.

SLIDE 2

There are a number of countries, some new to coal, planning substantial increases in coal imports, and we have overlaid these countries on the previous slide. Of particular interest to Alaska will be Japan, Taiwan and Korea, and of course your first trial shipment has already gone to Korea. Also in the Far East one cannot overlook the Philippines, Hong Kong and Singapore who are each requiring coal for power plant use. There are other possibilities such as Hawaii, who are now buying some coal from Australia whereas from a transportation advantage this coal should come from Alaska, as well as in the National interests, but in the case of Japan, Taiwan and Korea each one of these countries have already announced new coal import plans.

There is no doubt with the present situation in Poland, a country which was a major coal supplier for many years to neighbouring European countries, that these countries are now most concerned since it is vitally important to have security of supply of coal whether for power plant or blast furnace feed. One cannot over emphasize the matter of security and reliability and in a number of cases, in order to ensure security of supply, some countries will traditionally look for supply from several sources, a point which should benefit Alaska.

SLIDE 3

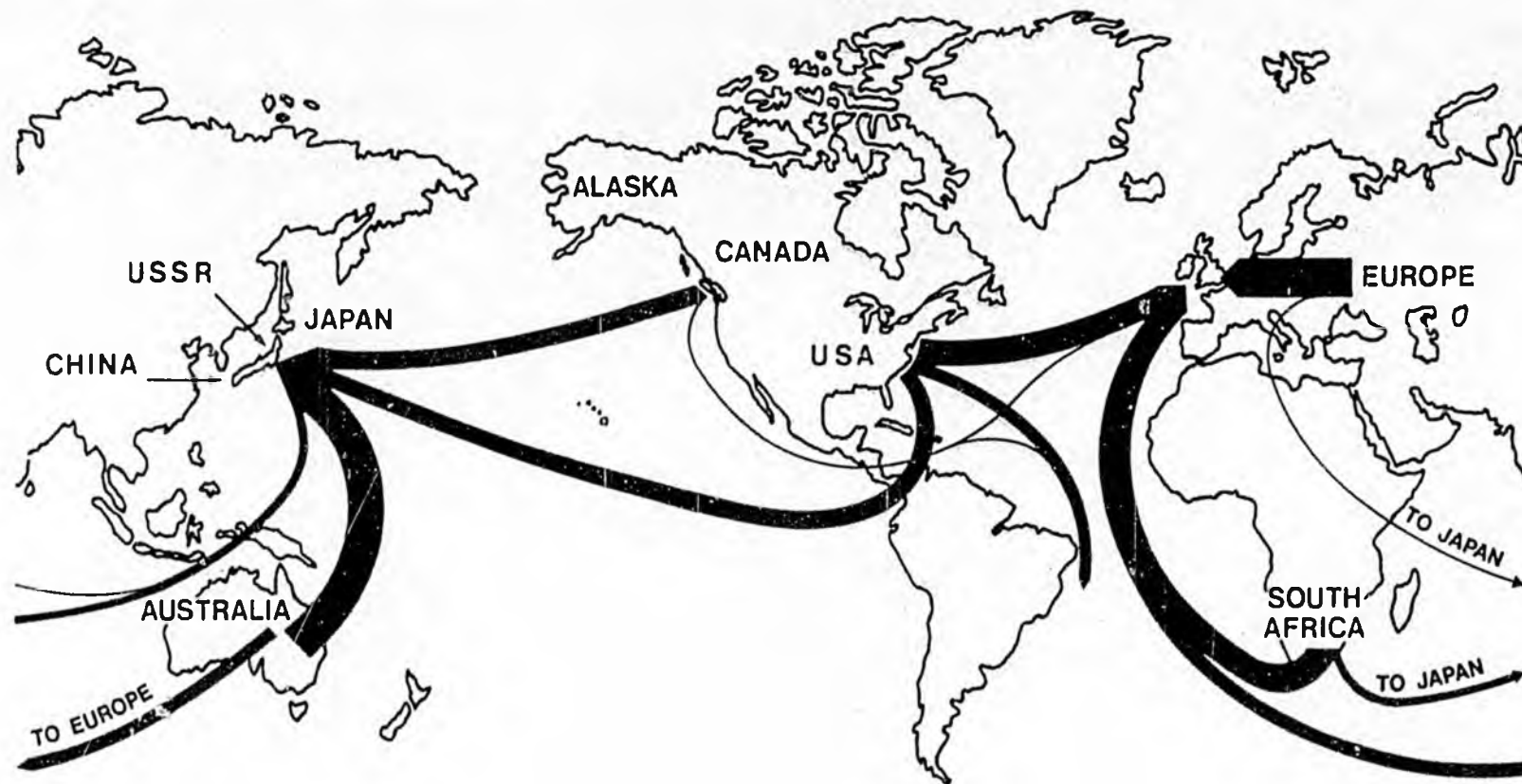
The next slide shows some of the major coal exporting ports in the world and provides an indication of the size in terms of annual tonnage thruputs of some of these terminals as well as some of the projected thruputs. These are order-of-magnitude figures only and could vary slightly, but will serve to indicate some developments which are taking place in coal terminals.

SLIDE 4

Complimentary to the previous slides this slide indicates a conservative growth in coal to be moved on the oceans of the world over the next two decades. Now these growth figures should not be confused with total world production which as pointed out before is some 2½ billion tons a year with most of this coal being consumed by the countries which mine it, nevertheless the forecast increase of 3 to 4 times today's ocean export volume to be carried on the oceans of the world by the year 2000 is dramatic.

MAJOR ROUTES OF SEABORNE COAL TRADE

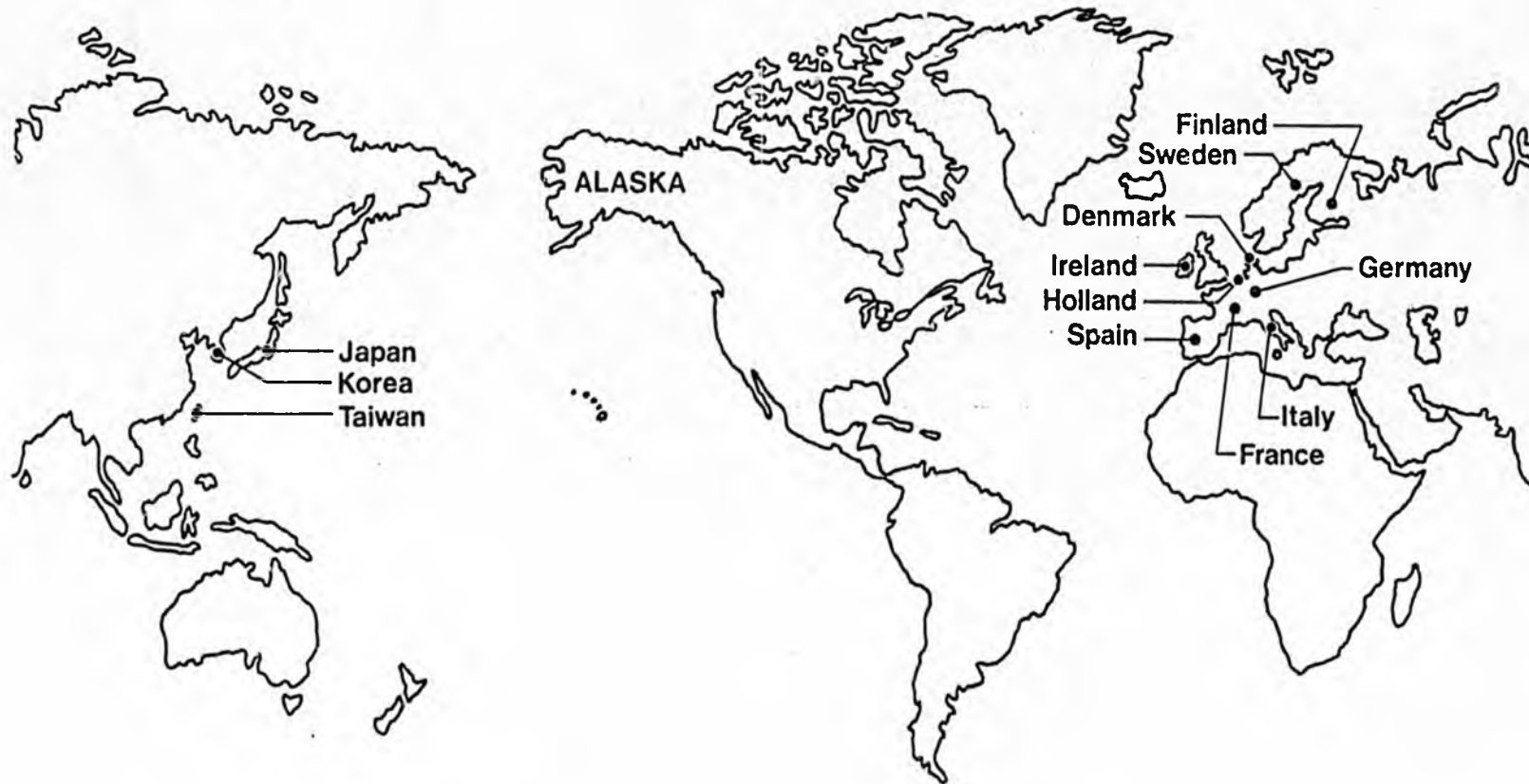
15



SLIDE 1 Thickness of lines indicate annual volumes movement of coal.

COUNTRIES PLANNING SUBSTANTIAL INCREASES IN COAL IMPORTS

16



SLIDE 2

Note: There are other smaller increases of coal imports planned such as Singapore, Hong Kong, Philippines, etc. but these are relatively minor.

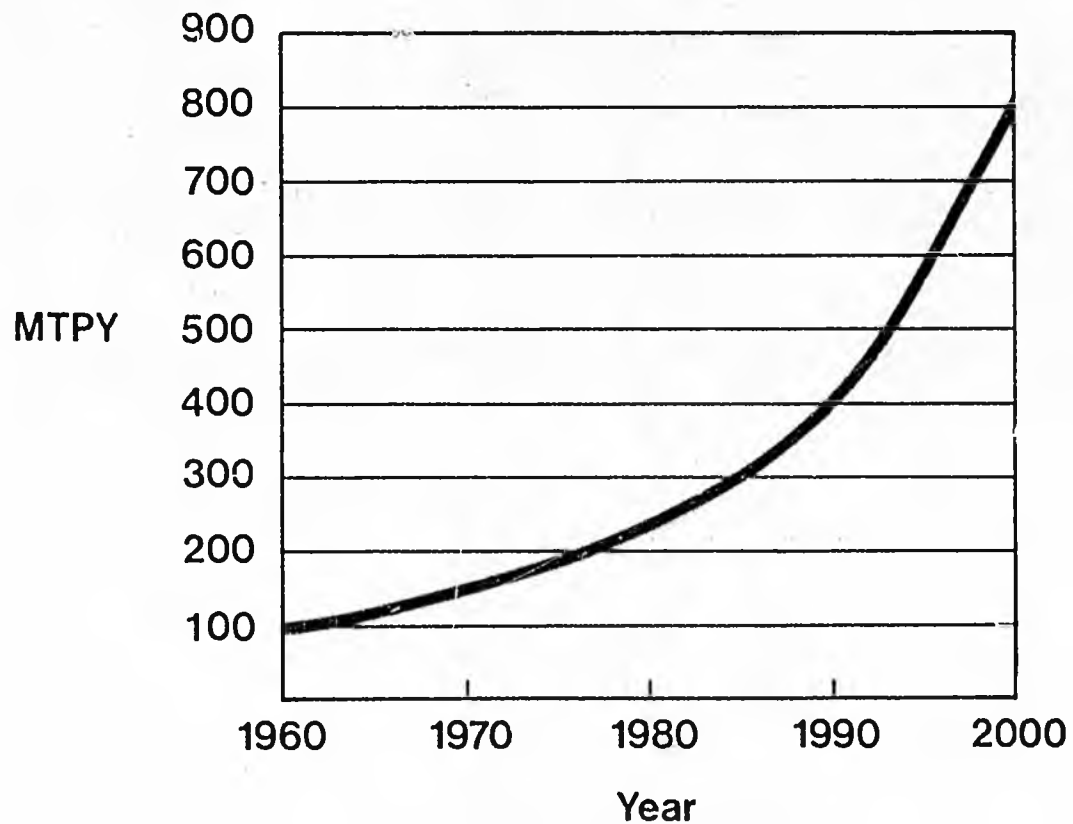
ANNUAL THROUGHPUT OF MAJOR COAL EXPORT TERMINALS (MTPY)

	Current	Expanded
AUSTRALIA		
Hay Point	17	23
Newcastle Basin	10	—
Port Gladstone	7	—
Port Kembla	5	20
Port Waratah	1	
CANADA		
Roberts Bank	11	32
Neptune Terminals	3.5	9
POLAND		
Swinoujscie	12	—
Gdansk	10	—
SOUTH AFRICA		
Richards Bay	24	44
U. S. A.		
Hampton Roads (2)	24	—
U. S. S. R.		
Vostochny	—	5

SLIDE 3

Note: These are order-of-magnitude figures only
and will be constantly subject to change.

COAL GROWTH AND FORECAST TO THE YEAR 2000



SLIDE 4

Note: This forecast relates only to coal to be moved on the oceans of the world, i.e. overseas export coal and not to growth for domestic consumption which is, incidently, far greater than the above in terms of total tonnage.

SLIDE 5

Here we have taken a specific market - Japan - who propose to triple their coal imports by the year 2000, and compared the end cost of coal, or f.o.b. Japan, on an order-of-magnitude basis against Western Canadian and Australian coals. These are comparison units costs only but serve to indicate the advantages Alaska has on the transportation side, both land and ocean, and how it reflects in the end price. These figures also indicate the relatively high transportation component in the price of the coal at the market place.

SLIDE 6

This is a comparison table showing the various nautical mile distances between Alaska and some of the major coal export ports to the receiving ports in Europe and in the Far East.

SLIDE 7

Where does some of this coal go?

This is the EKOM terminal in Holland which is a typical European receiving terminal with much of this coal being transshipped inland in Europe either by barge or rail.

Immediately adjacent to this terminal we are currently designing a new receiving terminal to import initially 6 m.t.p.y. rising to 25 m.t.p.y. The maximum size of vessel which will be accommodated here is in the 200 - 250,000 DWT size. I mention this because it does mean in order to optimize the total transportation system that the ship size to be accommodated at, say the Alaskan end of the system, should be in this order but it will be a few years before we see vessels of this size in the coal trade.

SLIDE 8

This is the Richards Bay Coal Terminal located on the Indian Ocean side of South Africa which was first started on the basis of 2½ m.t.p.y. The construction of the overall project began just 8 years ago and was designed not only to handle coal, which started it all, but other bulk and heavy lift cargoes. Just 4 years later, in 1976, after a massive dredging operation the original Bay being only 6 or 8 feet deep, not 60 feet plus like you have here in Cook Inlet, the first coal was loaded.

About 80,000 tons of coal arrives daily with the current annual rate of, in a space of just under 5 years, reaching 28 m.t.p.y. making it today the largest single coal terminal in the world and now being planned for 44 m.t.p.y.

SLIDE 9

The future Richards Bay Coal Terminal at 44 million tons per year. We have this additional work underway now with completion in 2 to 3 years time. At this point it might be interesting to mention the matter or ownership and operator since this issue has recently been raised several times. The land is owned by the National Railway, an arm of the Government, who carried out the dredging, site preparation work (that is the rough grading only) and laid power, water, road and rail service to the site, all of which we refer to as infrastructure. This area was then leased to 10 or 12 coal producers who in turn formed a terminal company to operate and manage the terminal. This company designed, built and financed all of the necessary

APPROXIMATE DELIVERED COST OF COAL

\$/tonne (1979)

	Western Canada to Japan	Australia to Japan	Alaska to Japan
Mine	17.50	20.00	same
Land Transport	15.00	7.50	much less
Export Port	2.00	2.00	same
Marine Transport	8.00	7.00	less
Import Port	2.00	2.00	same
Delivered Cost	44.50	38.50	less

SLIDE 5

Note: These costs shown are for steam or thermal coal

DISTANCE COMPARISON IN NAUTICAL MILES

	Japan	Rotterdam
Anchorage U.S.A.	3 700	9 350
Hay Point AUSTRALIA	3 950	14 550
Richards Bay SOUTH AFRICA	8 250	7 100
Roberts Bank CANADA	4 250	8 850

SLIDE 6

coal handling machinery, the electrical and mechanical work, the foundations, the terminal rail trackage, maintenance and office buildings, etc. Incidentally these coal producers include Shell, B-P, Total, Anglo-American and other major corporations. Most of the contracts for coal sales run for 10 - 15 years, as is the case with a number of similar coal developments, all of which allows for orderly investment and expansion.

On the matters of terminal charges the higher annual thruputs will reduce the cost of handling the coal across the terminal, certainly in the lower volume range.

SLIDE 10 & 11

Closer to home is Kaiser's Westshore Coal Terminal at Roberts Bank which is a large delta area off the mouth of the Fraser River near Vancouver. This terminal is now handling approximately 11 m.t.p.y. almost all this coking coal. The terminal began shipping some 10 or 12 years ago on the basis of 3 million tons per year. Plans are now underway to increase the thruput to 32 m.t.p.y. The new coal will be largely thermal coal. This has been a very efficient and successful terminal.

The site is unique -- it is a 50-acre artificial island constructed 3 miles offshore in order to reach deep water with minimal dredging and no maintenance dredging but at the same time, to produce a relatively economical site in terms of cost per acre which was achieved. The facility was in production 21 months from start of engineering and construction to completion and shipping coal including the creation of the "island".

SLIDES 12 & 13

This "island" at Roberts Bank is now being tripled in size at a cost of approximately \$40 million to prepare for the 32 m.t.p.y. thruput. The cost of this additional infrastructure which includes as before, rough grading and services, is being borne by the federal Government who recover the total amount at no cost to the taxpayer in the form of lease charges, plus a thruput charge which can have an incentive formula to encourage greater thruput. The terminal operator will then construct all the necessary on-site facilities, the berth, coal handling plant, buildings, etc. costing in this case about \$200 million at the 32 m.t.p.y. level.

SLIDES 14, 15 & 16

The following slides are to indicate that a coal terminal can live peacefully with the environment and with residential dwelling and commercial buildings close by.

In the case of the Neptune Terminal, SLIDE 14, it was coal which initially launched this terminal at 3 m.t.p.y. which now in addition to coal, the terminal handles bulk potash as an export and phosphate rock as an import.

Vancouver Wharves, SLIDE 15, is a multi-product bulk terminal handling products such as bulk fertilizer, sulphur, potash, copper, lead and zinc concentrates, packaged lumber and pulp again located close to commercial and residential areas.

The next slide takes us back to Richards Bay for a moment where immediately adjacent to the terminal is a nature reserve and here in the foreground, with the terminal right behind, is a flock of pelicans which have become the logo of the terminal.

What type of site do we need for a bulk port"

Ideally, level land and if the area is to be served by rail then a site initially in the order of 30 - 50 acres, but which could be expanded if necessary to several times this size.

Deep water is essential.

When we look at the forecast figures for export coal growth and the fact that today that we are already loading cargoes in the 160,000 DWT range then obviously for a new port we should, if possible, make provision for ships in the order of 200,000 to 250,000 DWT. It is interesting to note that 2 new coal receiving terminals now being planned, one in Europe as mentioned earlier and one in the Far East are both allowing for vessels of 200 - 250,000 DWT size.

The power demand by a terminal is not excessive nor are the other services but the land access by road and rail is important as well as availability to labor.

There are other opportunities once a facility is in place which can provide power, rail access, deepsea ship access, labor availability and land, and particularly where coal or other sources of energy are available which could lead to the establishment of an industrial park adjacent to such a terminal. This has occurred in other countries where the terminal has been the stimulant and there are obvious advantages in over-the-fence-trading.

SLIDE 17

The various key components at Roberts Bank are similar to most coal exporting terminals and would be typical examples of the equipment etc. required for a bulk coal terminal for Alaska. If we start at the receiving end and assume that the coal will arrive by train as compared to conveyor, pipeline or truck, then the unit trains which generally arrive, depending upon distance and other factors, in units from 60 or 70 cars up to 200 cars, are now handling upwards to 16 - 17,000 tons of coal per train.

SLIDE 18

These unit trains are permanently coupled with rotary couplings allowing the cars to be rotated and dumped without uncoupling and then moved ahead with an indexing mechanism, the whole process taking about 90 seconds per car of 100 tons of coal for a single dumper.

A fast train turn-around time is essential both at the mine and at the terminal, not only does it keep the number of trains needed to a minimum, but equally important it reduces the possibility of the coal freezing.

A good example of a high speed unit train operation is the Kaiser Coal/CPR unit train operation in Western Canada where the round trip distance is 1500 miles, much of it in sub-zero weather with heavy grades and including locomotive servicing, crew changes, loading and unloading - the complete round trip operation is accomplished in 85 hours.

The economics are obvious if you double this time you also double the number of cars and locomotives required to move the same annual tonnage plus the additional operating costs. All this reduces down to the need to have a good rail layout at each end of the system which in the case of the terminal can often dictate the shape and extent of land required. A complete loop track at the terminal is commonly used which allows the train to be unloaded and headed back to the mine without any shunting or reversing.

From the train the next major function is stockpiling, however, the terminal should always have the ability to move coal directly from train to ship. The calculation of the optimum volume to be allowed for in storage depends upon a series of factors, such as the train and ship arrival patterns, annual thruputs, number of grades to be handled and length of time due to internal combustion that certain coals can be allowed to remain in storage. The stockpiling and reclaiming operations can be carried out by separate machines or by the same machine or by various combinations depending upon annual thruputs.

SLIDES 19 & 20

The combined machine, known as the bucket wheel stacker reclaimer, is in common use today. This machine can stockpile and reclaim coal for shiploading at rates up to 6 - 7,000 T.P.H.

A coal sampling tower is often located just prior to the coal going into the ship. Sampling is important as it generally forms part of the contract and determines the final value of each shipment of coal.

SLIDE 21

There are a number of different types of shiploaders, and usually items such as cost, foundation conditions, type of berth, ship size, tidal ranges, etc. must be considered in selecting the best suited shiploading equipment.

SLIDE 22

The import and export of other commodities can be accommodated - a typical example would be bulk alumina or bauxite for the manufacture of aluminum which has a high power demand. I understand that proposals along those lines have been considered for Alaska.

SLIDE 23

What does all this equipment cost in order to get into the coal port business?

If we assume that the land is available and adjacent to deep water, and if we exclude the cost of the land then the capital cost in today's dollars for a typical terminal to handle say 6 - 10 m.t.p.y. of coal would be in the order of \$65 million and would break down into the major items as shown, most of which were shown on the previous slides. The only major variable in the above cost summary would be the cost of the marine structures which in any event vary from site to site as compared to the other items of equipment. (We are, at this moment, just starting 2 coal terminals which are being designed for thruputs of 9 - 10 m.t.p.y. and excluding the land cost the capital costs, similar to the terminal described here, are \$58 and \$65 million - these are today's prices which serve to indicate that the figures shown on the slide are in the right order).

6 - 10 MTPY TERMINAL APPROX. CAPITAL COSTS (1981) \$

Site Services and Rail	\$ 2,000,000
Unit Train Unloading	7,000,000
Conveyors	8,000,000
Stacker / Reclaimers	18,000,000
Shiploaders	12,000,000
Marine Structures	10,000,000
Sampling Plant	1,500,000
Electrical Equipment	5,000,000
Ancillary Buildings	1,500,000
TOTAL. (excluding land costs)	\$ 65,000,000

SLIDE 23

NOTE: The marine structures shown here at \$10 million will vary from site to site. Due to conditions of depth, distance to shore, ice, tidal range and ship size.

A port can make a major contribution to the economy of the region in which it is located. The Port of Vancouver recently commissioned a study of its impact on the Greater Vancouver area and the study found that Vancouver, a major loading port for bulk commodities:

- . directly and indirectly provided one job in ten in Greater Vancouver;
- . created 12½ percent of the region's payrolls; and
- . was responsible for, directly or indirectly, 16½ percent of sales and revenues in Greater Vancouver.

Although labour-intensive general cargoes have a greater economic impact than bulk cargoes such as coal, bulk cargoes are still very important and some comparative numbers for the Port of Vancouver adjusted to late 1980 price levels are:

- . coal, with a total port-related payroll of \$32 million per year and a volume of 14 million tons, or \$2.90 per ton;
- . other bulks such as copper concentrate and sulphur, with a payroll of \$150 million and a volume of 11 million tons, or \$13.00 per ton; and
- . general cargo, with a payroll of \$600 million, and a volume of 5,600,000 tons or \$107.00 per ton.

A new bulk port in Alaska will add to the economic health of the surrounding community and it will provide productive, high-income jobs in the port and terminal. Expenditures by these employees will create service jobs for others, with the port generally creating an economic activity that would not otherwise take place.

Ports such as we are considering can be funded and managed privately by one user or by a consortium of users or by a local public authority. If there is to be more than one user and I assume that this could be the case in an Alaskan bulk coal port, as well as possibly more than one product to be handled, then there is merit in considering an independent terminal operator either public or private, in order to avoid conflicts of interest by different users - which arise in the accommodation of different cargoes, and different arrival patterns. I mention this because in some cases where a government organization has initially funded the infrastructure development they have stipulated in the lease agreement with the terminal operator that the terminal must be made available to others for handling their products, providing that these other products are of a similar nature and have reasonable annual thruput volumes for practical reasons.

Finally as to coal's future why not look at the oil industry?

In a phrase the oil majors are betting on coal.

These oil companies have invested over the past few years several billion dollars in the acquisition of or in securing of important participation in companies and coal reserves around the world. The catalogue of all these activities would take a long time to read out, to name a few - Shell, Exxon, Continental, Mobil, Sohio, B-P, Standard Oil California, Gulf, Petrofina, Occidental, Atlantic Richfield, Total of France, etc., are all deep into coal mining and marketing on several continents which perhaps best of all demonstrates that they, as the energy leaders of the post war period each

know that coal is to be the base energy for industry over the next similar period (30 - 40 years) by which time the new generation of nuclear energy should be well and truly starting to share the full strain.

As a last point I thought we could share some thoughts on the pricing of coal and how it differs from oil. Now you do recall the difference which I emphasized between oil, which moves in a major way internationally and coal which does so traditionally in a relatively minor way. Right from the 1920's there has been a recognized pricing mechanism for oil recorded daily in the journal Platt's Oilgram. It still carries on today. Thus a concentrated yardstick for pricing crude oil did simplify OPEC's job when they elected to force up the global level of crude oil prices in 1973 and continued the action progressively ever since!

The important point is that the impact of increased crude oil prices is direct and international, we all know that - wherever we reside or in whatever country our business is mainly involved. Now coal in this regard is completely different. I said earlier that the size of the international coal trade is but marginal relative to production - say 5% today of global coal production. This means that almost all coal is produced and consumed within its own region. Russian coal in Russia, U.K. in U.K., USA mainly in USA, India in India, China in China, South Africa in South Africa and so on. Each of these is an example of what I am saying. What these countries pay internally for their coal - their own coal, whether this is high or low by another's standard has no bearing whatsoever on the price which a consumer will pay for coal from another economic region.

Take Egypt as a typical example, Egypt is buying coal from USA, USSR, Poland and Australia. How much coal from each supplier is Egypt's affair as well as the various costs of coal laid down at Egypt's ports from the supplying countries. This is free trading in coal with no fixed pricing structure. But this free trading which is typical is forcing coal producers to establish real mining efficiencies and first class transportation to ports, as well as efficient port operations. It is also causing ship owners to set themselves up with properly designed coal carrying vessels. At the other end consumers must match all this by their own capabilities in receiving coal efficiently and economically as a part of the total transportation system. When the final decision is made on the port selection, the land and marine access, and this may sound elementary, but we must remember that the coal buyer in effect has the last word for not only is he looking for security and reliability of supply but also for the safest possible marine access and secure facilities for his ships. To put this another way, ideally one should decide from a national standpoint where the best port location is, the railroad route, etc. because our real competition is not here in the "backyard" - it is from other countries.

This has been a broad-brush review of coal on a global basis and of some of the world bulk coal ports together with the components which would go into a bulk port such as could be developed here in Alaska.

Today we are seeing certain new coal mines being developed at about half the cost of developing some of our oil reserves in terms of equivalent energy units. Also, as a typical example, the Hong Kong Power and Light Authority who are today installing new large coal fired thermal power plants, estimate that the cost of coal as a fuel, which they must import to fire these plants, will be half that of oil.

And in conclusion, while we know that we must control our future energy diet and that some items on the menu will be expensive, I can assure you that for some years ahead one of the main dishes on this energy menu will be coal.

LEASING, ROYALTY, TAXATION POLICIES

Moderator: Phil Holdsworth, P.E.

The main points of the proposed new state coal regulations were presented by a representative of the State Department of Natural Resources. The "not less than 5% royalty" proposal was strongly opposed. Setting royalty rates and/or taxes at too high a rate can result in leaving reserves in the ground as uneconomic for current recovery, and impossible to recover at some future time after surface reclamation.

There was a strong feeling by many of those present, and several who presented their views after the session, that too much discretionary authority should not be left with the state administration--that firm guidelines should be set out by legislation. Otherwise, if the administration was not interested in the development of a substantial coal industry in Alaska, they could very well preclude such development by the adoption of unrealistic lease terms and regulations. It may be advisable to resurrect the final version of last year's marked-up coal leasing bill and reintroduce it in the current legislative session. Some finality of lease terms is necessary, in each proposed mining operation, before feasibility of operations can be determined.

There was a suggestion that royalties, rentals (advance royalty), and taxes derived from coal mining in Alaska should be deposited in a special fund for use in developing port facilities for moving coal to export markets which are just now materializing. This, of course, runs afoul of the "dedicated funds prohibition" of the state constitution. It was also pointed out that private enterprise has historically constructed these types of facilities.

Taxation--the mining license tax--was really not discussed in any detail. Apparently no changes in the present tax law are considered necessary.

FEDERAL REGULATIONS

Moderator: Jeff Lowenfels, attorney

Discussion centered about three areas of federal regulatory concern. These were: The Clean Air Act; Wetland determinations; and the Surface Mining Control and Reclamation Act of 1977.

Consensus was reached by the group regarding these three subjects, and the following recommendations were made:

Recommendation 1. The State of Alaska should concentrate on formulating a policy with regard to the changes needed in the federal Clean Air Act so the state can present a unified position during upcoming oversight hearings to be held on the Act in Congress this coming spring.

Alaska's coal is so low in sulfur content that emphasis should be placed on the futility of sulfur reduction standards applying to Alaskan coal in the same manner as these standards apply to high sulfur eastern coal.

Recommendation 2. Current U. S. Army Corps of Engineers administration of wetland use permits can cause delays in developing Alaskan coal. Thought should be given to developing Alaskan coal on a project wide basis, so general permits concerning wetlands involved with coal extraction may be given.

Recommendation 3. The State of Alaska should enact a Surface Mining Control and Reclamation statute during the current legislative session. Without such a state act there will be no new coal mines developed in Alaska, nor can existing mines expand. The urgency of this matter is highlighted by the fact that there is not now a place to submit a mining permit application. Also, there is the spectre of a federally imposed program giving jurisdiction over coal mine reclamation to the Federal Office of Surface Mining (OSM).

DEVELOPING MARKET STRATEGIES

Moderator: Richard Eakins

Following are the recommendations that originated out of the marketing strategy session of the coal conference.

Strong consensus. Unanimous agreement. It is observed that much of the world is ignorant or badly misinformed on Alaska, its products and its environment, which often gives a negative influence on the potential for the exchange of trade and commerce.

Recommendation 1: An aggressive promotion-information program should be conducted in Alaska's prime coal export market areas, and that it be a cooperative effort between private enterprise and government.

It is recognized that Alaska, to be world market competitive, has to overcome certain production cost handicaps. Industry can be competitive if:

- (A) it can be confident that those regulatory policies affecting costs are streamlined and minimized to their least-cost point to the industry.
(1) regulation; (2) permits; (3) environmental operating conditions; (4) taxation.
- (B) it can be assured that once regulatory costs are established, they are assured and constant for the long-term; short-term changes and instability of policy measures make it very difficult for industry to enter into long-term contract set prices.
- (C) it knows what infrastructure costs it will have to assume and the subsequent additional costs it imposes upon the product selling price.

Recommendation 2: Small producers be encouraged and assisted in entering the market by planning and providing infrastructure facilities that small producers could use.

Recommendation 3: It be a policy to provide a healthy, positive entrepreneurial market environment that encourages new investment and market activity.

Mixed consensus. Less than unanimous approval. It was observed that if Alaska can provide a skilled technically trained labor force, it will provide the most efficient labor and industrial research technology to the industry.

Recommendation 4: That it be a policy to determine the need for human resources for the emerging industry; that training and technical facilities be provided to maximize the utilization of Alaska human resources and provide technological development services.

Recommendation 5: That it be a policy to encourage exploration for new coal deposits and allowing the opening of coal leasing on State lands.

Recommendation 6: That it be a policy of the state to explore the economic potential for using coal to produce manufactured products in-state using processes such as distillation, gasification, etc.

STATE REGULATIONS

Moderator: Thomas Cook

The major topic of the session concerned the permitting process presently required to comply with various environmental safeguards under state law and regulations. In particular, the air and water quality standards enforced by the Alaska Department of Environmental Conservation, the habitat protection measures required by the Department of Fish and Game, and the consistency standards administered under the Alaska Coastal Management Program were discussed.

Other important aspects of state regulations, such as lease administration, taxation, royalty obligations, and state administration of the Federal Surface Mining Control and Reclamation Act were the focus of earlier work sessions.

It was generally acknowledged that the coal industry would be affected in an adverse way by the many regulatory requirements. Most participants agreed that there existed a fundamental need for reform of the regulatory process. The regulatory problems currently being imposed upon other industries--notably the oil and gas industry--are recognized as major obstacles to coal development.

Basically, the group supported legislative efforts to require agencies to administer regulations in a timely and reasonable manner. Legislation to reform the regulatory process has been re-introduced in the current session. The participants recommend the strong support of legislated regulatory reform.

The "wetlands" jurisdiction of the Corps of Engineers is too extensive in the general view of the group. An effort should be initiated to limit the overly extensive definition of wetlands. Moreover, the group felt that wetlands should be administered by the state rather than the federal government.

Virtually everyone agreed that there is a need for an undoing of the regulatory maze. Industry needs a stable regulatory climate. The rate at which new regulatory programs are being imposed creates a great uncertainty for companies contemplating the development of Alaska's coal resources.

The group recommended the following basic goals of regulatory reform:

1. Simplification of the regulatory process. Current requirements are redundant and unnecessarily complicated. Some agencies have requirements which conflict with the requirements of other agencies.
2. Environmental constraints should be reasonable and

justified by a real need. Such stipulations should be looked at in terms of a cost/benefit analysis.

3. Agencies should be required to act on permit applications in a specified time-frame. Proposed legislation would require review and approval within strict time limits. Agencies should be required to act on applications in a timely manner. Delay costs money.
4. Agencies should be held accountable for conditions imposed through the permitting process.

The group also acknowledged the need for protecting environmental values in the course of coal development. It was felt that much could be accomplished by further work sessions between industry and state regulatory agencies.

SOLVING TECHNOLOGICAL NEEDS

Moderator: Ross G. Schaff, State Geologist

Improving Scientific Data Base

This includes the spectrum of natural resource data that will be a necessary and integral part of coal development including expanded laboratory studies, geological mapping and resource evaluation, and hydrological studies. Our general recommendation is for state supported programs in all categories.

The importance of these data is twofold. First, specific and general knowledge of the coal resources and characteristics is a necessary factor in the marketability of Alaska coal. Second, coal operators will be hard pressed to obtain development capital without the assurance that the various permits for operation can be obtained. And permits cannot be obtained without hard baseline information on coal and the surrounding environmental conditions.

Two specific recommendations related to this category of scientific data collection were agreed to by the group:

Recommendation 1: Public Law 95-87 has a provision to establish university coal research laboratories in "each of the major coal provinces recognized by the Bureau of Mines, including Alaska." Unfortunately funding from the United States Government was not provided to establish any of the laboratories. The law authorized funding for construction of facilities, purchase of fixed and movable equipment and matching funds for operating expenses. In view of the fact that federal funding was not forthcoming at the time, it is recommended that state funds be utilized now to strengthen the laboratory activities of the School of Mineral Industry.

Recommendation 2: That funding for scientific data collection and research should be only for activities which are clearly defined in terms of objectives and products.

Mining Engineering/Production and Transportation Technology

This category speaks to the coal-related technologies which must be available if coal development can take place within the regulatory environment of state and federal law. These include, but are not limited to such topics as:

1. Small scale mining technologies for remote site utilization
2. Transportation methodologies for large and small scale operations
3. in situ gasification and in situ combustion for mine mouth power generation

4. Sulfur removal by bacteria and other innovative methods inclusive of regulatory reform
5. Coal/methanol processes
6. Coal briquetting for energy enhancement of lower rank coals
7. Seasonal impacts on mine constructions, operation, and product transportation
8. Utilization of coal waste as a platform for agriculture and other industries
9. Reclamation research
10. Mining in permafrost
11. Preparation of coal for transport

Additional research suggestions were listed in one of the resource papers "Coal Research Needs" included as a part of back-up material for the conference.

Recommendation 3: A pilot project which would demonstrate the viability of using coal on a small scale in an Alaska village should be instituted. The expression was made that while broad resource evaluation of coal in remote areas should continue, it was essential that something get started where the resource and need for cheaper fuel are known. This should be supported by the acquisition of baseline data sufficient to support economic projections.

Recommendation 4: There is a need to keep technological research coordinated by a single agency such as the University of Alaska (presumably the School of Mineral Industry) so that the benefactors of this research would be able to communicate easier with the researcher.

Again, a concern was expressed that the Legislature should fund only those projects which had a very specific set of purposes and products. Research should be directed more toward immediate application of findings as opposed to longer range basic research.

An expression was also made that the state support the concept and if necessary the operations which would refine coal in Alaska to secondary products such as methanol. There was a concern that export to foreign nations of coal in a primary state would not meet national needs and eliminate the possibility of additional employment opportunities for Alaskans.

Specifically, the state should be aware of the need for assistance to the Beluga methanol project currently funded by DOE at the initial stage.

There was also an expression that industry also has a responsibility to support its own interests through commitment of funds to research and development directed to developing Alaska coal resources.

INFRASTRUCTURE NEEDS

Moderator: C. H. Gates, Port of Anchorage

Recommendation 1: That the State of Alaska clearly define a policy regarding the development of transportation, community and human resource infrastructure to comply with the intent of Article VIII, Section 1 of the Alaska State Constitution. ("It is the policy of the State to encourage the settlement of its land and the development of its resources by making them available for maximum use consistent with the public interest.")

Infrastructure definition: Any capital improvement investment to develop a resource. Types: mine, transportation, consumer.

Floor Comments:

State should stay out of the way - regulations will offer enough control. Allow industry to do its own thing.

State should assist industry by developing ports and transportation only. Royalties, etc., should go back into ports and transportation.

Railroads and hydro should be built - industry will "flock in" then.

Small coal operations are feasible.

Courts or Congress could take away Alaska's oil wealth. Use state funds immediately to improve country's energy position and keep the funds committed to infrastructure so Feds couldn't get it. Good sound projects only.

Surface mines "hamstrung" by regulations. Coordinate state regulatory and permit functions to streamline. Public sector should build ports; companies will then pay back to state on a delay basis to provide development incentive to capture our current opportunity.

Chicken and egg syndrome - private interests normally develop bulk infrastructure, not governments, but to have public access infrastructure must have a public element.

State should put 90% of effort into data collection and cutting red tape. These items will encourage coal development. Additionally, 10% of state's effort might be making money available for transportation-related infrastructure development.

Alaska should create a corporation to purchase the Alaska Railroad--totally owned by the state--contract-out supervision--expand railroad.

Floor Comments

State should immediately evaluate Anchorage (present port), Fire Island, Whittier, Seward for coal terminal. Also evaluate Regional Port Commission concept and a temporary multiple use bulk (coal/grain) facility at Anchorage.

Will industry pay for public facilities? Yes. They have and will only to the excess capacity of the facility. Then the public is out and the operator has total usage.

Private industry does not allow other operations - they'd never get development financing if transportation infrastructure was subject to cancellation. Would require expensive duplication of capital investments that could be avoided.

Regarding community support at Beluga, is a new community necessary at site? A transportation system to connect existing communities instead of developing a new community should be looked at to prevent major social disruptions across the Inlet.

An Alaskan policy should be to make job opportunities for Alaskans.

Recommended infrastructure would be investing in permit efficiency procedures at the state level and incentive financing of transportation projects to enhance development opportunities.

Alaska should invest revenues to develop infrastructure.

Japan and other Pacific Rim countries cannot build infrastructure in Alaska. (A) Because it is usually done by host governments. (B) They aren't experienced in going to other countries to build facilities. (C) Some countries like Korea can't take their country's money out of the country.

The Alaska Railroad international connection to Lower 48 is well on its way - don't blow it by accepting railroad from the Feds. Let Feds expand railroad for Alaska.

(Mr. Frank Jones, General Manager, the Alaska Railroad.) The U. S. Department of Transportation's position is that the State of Alaska should buy the Alaska Railroad. This is assumed in the U. S. Department of Transportation's FY '82 budget.

State should receive railroad - it's approaching viability, especially with coal resources. Currently the railroad cannot borrow against its assets to expand since it is not privately owned. It cannot expand under present ownership, especially in light of budget cutting at the federal level.

State should purchase railroad if private industry can't or won't.

If the state improves infrastructure at railroad ends and makes it more profitable, the Feds will want to keep it.

Floor Comments

International connection necessary so that Alaska can have markets in Lower 48.

Need the leverage that the federally owned railroad gives it when dealing with the federal government.

The state should establish a development corporation to run the Alaska Railroad - state as a stockholder.

Run the Alaska Railroad like the New York Port Authority with "a-political" Board of Directors. The state could establish a financial company to address these needs (development of non-renewable resources).

Establish a fund from royalties and lease revenues that can be invested in promising resource development project infrastructure. This would also help the small businessman of the state.

The human resources of the state should be trained in the first phase of resource development, not after implementation. Very important that Alaskans be skilled and trained for development to participate in natural resource benefits.

RESOLUTION

That the State of Alaska set up a corporation to purchase the Alaska Railroad. The only stockholder would be the State of Alaska to start with, and the state would invest enough money to do the following things:

1. Rehabilitate the physical plant of the railroad.
2. Make a rail connection to the Canadian railroads.
3. Construct a coal port large enough to handle the output of the Healy, Mat-Su, and Beluga coal fields.

RESOLUTION

That the State of Alaska pursue immediate efforts to streamline the regulatory process and firm-up taxation and royalty policies that will encourage private industry involvement in the development of the state's natural resources.

Time constraints prohibited formal action on the resolutions.

ALASKA COAL MARKETING CONFERENCE

January 23, 1981

Anchorage, Alaska

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Tyonek Native Corp.
Congressman Young's Office
Anchorage Mun. Light & Power

ALASKA COAL MARKETING CONFERENCE

PURPOSE To understand and review the "framework" within which Alaska coal may be mined and marketed. To advise state and federal decision makers of the policies, research, regulations and capital improvements needed to enable the industry to move forward. To develop an informed citizen lobby that will work for necessary change.

THE PROGRAM

GENERAL SESSION

8:00 - 8:30

INTRODUCTORY REMARKS TOM FINK, President
Resource Development Council for Alaska, Inc.

CONFERENCE PROCEDURES DR. EARL BEISTLINE, Dean
University of Alaska, School of Mineral
Industry (Master of Ceremonies)

WORK SESSIONS

COMMODORE ROOM		KENAI-ALEUTIAN ROOM
(1) LEASING, ROYALTY, TAXATION POLICIES Phil Holdsworth, Moderator	8:40 - 9:55	(4) SOLVING TECHNOLOGICAL NEEDS Ross Schaff, Moderator
(2) FEDERAL REGULATIONS Jeff Lowenfels, Moderator	10:05 - 11:20	(5) INFRASTRUCTURE NEEDS Chris Gates, Moderator
(3) STATE REGULATIONS Tom Cook, Moderator	11:30 - 12:50	(6) DEVELOPING MARKET STRATEGIES Richard Eakins, Moderator

COCKTAILS AND LUNCHEON

1:00 - 3:00

KEYNOTE ADDRESS . . .

"ANATOMY OF A SUPERPORT—A LOOK AT ALASKA'S NEEDS"

Ian S. Ross, Chairman, Swan Wooster Engineering

CONFERENCE RECOMMENDATIONS Moderators of each work session
convey group actions to conferees

CLOSING REMARKS Commissioner Charles R. "Chuck" Webber

Our thanks to these individuals who assisted in developing the program format, submitted technical papers and/or served as advisors and moderators of the six work sessions.

Angle Dugick	Jim Wolfe	Chuck Hawley
Ross Schaff	Lloyd Pernela	Paul Metz
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Chuck Webber	Gillian Smythe	John Youngblood
Bill Noll	Laurel Murphy	Scott Goldsmith
Don McGee	Ralph Stelano	Claus Naske
Cleland Conwell	Bob Sanders	Don Triplehorn

And to the RDC staff and consultants:

Paula Easley	Terry Brady	Mary Holmes
Bob Fleming	Larry Hayden	Tracy Miller

And a fine group of volunteers:

Norma Swartzbacker	Joanne McMaster	Mary McKinnon
Fred Schentell	Shirley Heatwole	Joanne Hayden
Marilyn Carpenter	Elizabeth Lee	Pat Ryan
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