

Bulletin

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GUIDELINES FOR NORTHERN PIPELINES

Canadian Government guidelines for construction and operation of northern oil and gas pipelines have been announced jointly by Mr. J.J. Greene, Minister of Energy, Mines and Resources, and Mr. Jean Chrétien, Minister of Indian Affairs and Northern Development.

Knowledge of northern Canada's petroleum potential has been quickly expanding and major companies in the industry have publicly expressed interest in constructing pipelines. Some already have plans and research under way.

It is vital to Canada's economic growth and the protection of its northern environment that the Federal Government's policies relating to this major economic development be made known now to the public and the industry, the ministers said. Government leadership in policy and direction of this potential major economic contribution will be maintained and, if required, new guidelines will be issued, they added.

The guidelines relate to pipelines tapping oil and gas resources north of the 60th degree of latitude

in the Yukon Territory and the Northwest Territories and from Alaska. They establish requirements ranging from environmental protection, pollution control and Canadian ownership and participation to training and employment of residents of the North. Initially, only one trunk line each for oil and gas will be permitted in the North within a "corridor" to be established at a future date.

Mr. Greene and Mr. Chrétien met in Ottawa recently with the National Advisory Committee on Petroleum to discuss these requirements with its members and to bring the guidelines to the attention of the oil and gas industry as a whole.

GUIDELINES SPELLED OUT

The new guidelines for northern pipelines are as follows:

- (1) The Ministers of Energy, Mines and Resources, and Indian Affairs and Northern Development will function as a point of contact between government and industry, acting as a steering committee from which industry and prospective applicants will receive guidance and direction to those federal departments and agencies concerned with the particular aspects of northern pipelines.
- (2) Initially, only one trunk oil pipeline and one trunk gas pipeline will be permitted to be constructed in the North within a "corridor" to be located and reserved following consultation with industry and other interested groups.
- (3) Each of these lines will provide either "common" carrier service at published tariffs or a "contract" carrier service at a negotiated price for all oil and gas which may be tendered thereto.
- (4) Pipelines in the North, like pipelines elsewhere which are within the jurisdiction of the Parliament of Canada, will be regulated in accordance with the National Energy Board Act, amended as may be appropriate.
- (5) Means by which Canadians will have a substantial opportunity for participating in the financing, engineering, construction, ownership and manage-

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ment of northern pipelines will form an important element in Canadian Government consideration of proposals for such pipelines.

- (6) The National Energy Board will ensure that any applicant for a Certificate of Public Convenience and Necessity must document the research conducted and submit a comprehensive report assessing the expected effects of the project upon the environment. Any certificate issued will be strictly conditioned in respect of preservation of thermal and other erosion, freedom of navigation, and the protection of the rights of northern residents, according to standards issued by the Governor General in Council on the advice of the Department of Indian Affairs and Northern Development.
- (7) Any applicant must undertake to provide specific programs leading to employment of residents of the North, both during the construction phase and for the operation of the pipeline. For this purpose, the pipeline company will provide for the necessary training of local residents in co-ordination with various government programs, including on-the-job training projects. The provision of adequate housing and counselling services will also be a requirement.

The Federal Government will maintain a continuing review of proposals for the construction of northern pipelines and has under way a general review of foreign ownership and control. Further guidelines may be issued as a result of such reviews and would apply to all applications for such pipelines.

BACKGROUND TO GUIDELINES

A second great era of new oil and gas pipeline construction may soon begin in Canada. In the 1950s, transcontinental oil and gas pipeline systems were constructed from Western Canada fields east and west across the country and, since then, these systems have been continually expanded. Plans are now being developed for gas and oil pipelines from the Far North, southwards to Canadian markets and to United States markets. In anticipation of this new wave of pipeline construction activity, the Government of Canada has announced guidelines for companies engaged in planning these new enterprises.

Pipeline construction on the scale envisaged will raise numerous questions such as those relating to investment, ownership and control, jurisdiction, preservation of the delicate northern environment and ecology, thermal erosion, and pollution control in the Arctic. The guidelines published at this time are expressly designed to assist companies in their present early stages of planning, particularly in relation to these policy questions.

Discovery of the huge Prudhoe Bay oil field on the north coast of Alaska, and the subsequent acceleration of exploration throughout the Canadian North, has given much promise of major resource development. The markets will be available for all the

oil and gas that can be produced, provided production and transportation operations meet the economic requirements of competitive marketing. Even though Prudhoe Bay proved oil reserves are very large, they are only equivalent to about two or three years of the rapidly-increasing U.S. requirements as forecast for the year 1980. The growth of U.S. gas markets is even more rapid than the growth in oil markets and the 1970s will see a major deficit in supply unless new reserves can be linked to markets. The incentive for northern oil and gas resource development is, therefore, great, and the benefits that will flow from the opening up of Canada's resources in the Far North will have a multiplying effect throughout the entire economy. The urgency for the proving up of new reserves is seen in the fact that while Canada's oil reserve position is good, in 1969 the United States consumed 32 per cent of the world's oil output yet had only 6.6 per cent of its proved reserves.

IMPORTANCE OF TRANSPORTATION

The key to successful oil and gas development in the North is efficient transportation. Already several pipeline and financial groups have come forward with proposals to build gas pipelines from Prudhoe Bay and the Canadian North to Canadian and U.S. markets. A gas pipeline from the Arctic directed to mid-continent markets would cover a route of some 2,600 miles; one to Pacific coast markets, in excess of 2,100 miles. Other possible routes would also involve great distances. Only one gas pipeline system from the North is likely for the decade of the 1970s as it would require an investment of from \$2 to \$3 billion, depending on its route and the size of the markets to be served.

An oil pipeline from Prudhoe Bay to the Chicago area along a Mackenzie River route in the Northwest Territories would cover some 3,200 miles and cost well over \$2 billion. While the Trans Alaskan Pipe Line is the only oil line that has to date received the approved commitment of its sponsors, a considerable amount of research work and feasibility study has been undertaken by industry in Canada towards the day when an oil pipeline will be built from the North over Canadian territory.

The guidelines established by the Government of Canada at this time emphasize the care that must be taken in any pipeline project to protect the Arctic environment, particularly in permafrost and muskeg areas, where special methods of construction and operation must be adopted to preserve the delicate temperature balance and in all ways protect the natural environment. Permits for construction will not be given without appropriate guarantees in this respect.

BENEFITS FOR NATIVE NORTHERNERS

Within the North itself, pipeline construction and operation will bring great benefits in the form of employment and increased revenues for residents of the North. Furthermore, the existence of such a trans-

BOOST FOR LOW-COST HOUSING

The minister responsible for housing, Mr. Robert Andras, has announced that the Federal Government recently authorized Central Mortgage and Housing Corporation to initiate an additional 15,000 housing starts for 1970, a project that will require another \$100 million of public funds before the end of the year.

The new funds will be directed under Sections 16 and 40 of the National Housing Act, to provide owned and rented dwellings on which actual starts can be made before December 31, for persons of modest income.

"While 1969 and 1970 have seen a tremendous increase in Federal Government emphasis on providing decent shelter for lower-income families and persons, there is a continuing large backlog of need to fill. Also, the Government is aware of the low level of total new housing starts during the first six months of this year. It is true there was some improvement in June but the fact remains that the present overall rate of housing construction is not satisfactory and is of concern to the Government," Mr. Andras stated.

The performance of lending institutions, which was below expectation for the first half of the year, and strikes and labour stoppages, were two reasons given by the minister for the low number of new housing starts.

"It may be," he continued, "that both our

lending institutions and the house-building industry have tended to concentrate their activities on housing in the higher price ranges, where there may be some slackening in demand, and have not fully availed themselves of the opportunities afforded by the modest income market. This is one of the reasons that, earlier this year, I suggested introduction of the \$200-million innovative housing program - to stimulate the search for better ways and means of producing accommodation for families with smaller incomes."

Mr. Andras made it clear that, in the new program of 15,000 additional dwelling units for lower-income groups about to be initiated with public funds, every effort would be made to avoid any interference or overlap with activities of the private mortgage lenders, in either the National Housing Act or the conventional fields.

The minister said that, concurrently with his announcement, he had informed NHA lenders of the Government's additional direct investment and had asked them to step-up their residential mortgage lending as well. He estimated that a net addition of 15,000 starts in 1970 would create about 17,000 additional jobs in construction work and that the current level of construction activity could accommodate such an increase without strain. There would also be created a substantial number of new jobs in activities related to housing.

UNIQUE GERMAN PLANE AT MUSEUM

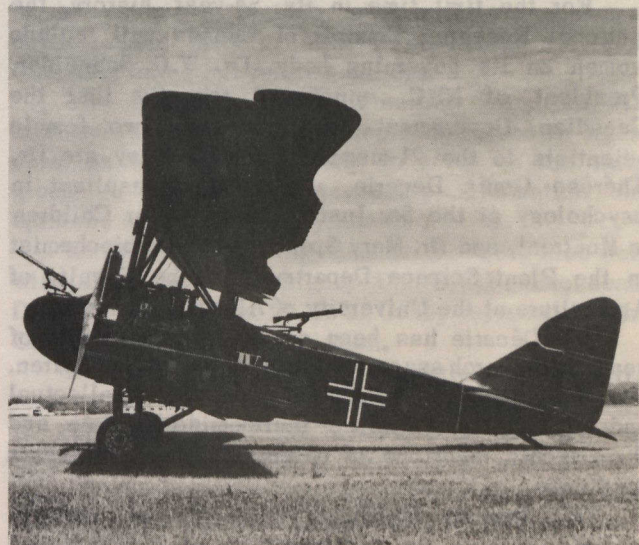
A German bombing aircraft of the First World War, the only example of an AEG (G-IV) in existence, has been restored to original condition and is on display at the National Aeronautical Collection in the Museum of Science and Technology in Ottawa.

The twin-engined plane, which had a top speed of 90 miles an hour, was used primarily on short-range tactical bombing missions on the Western Front. It carried a crew of three or four, depending on the mission, and a bomb load of 772 pounds.

According to aviation experts, it was not a successful performer compared to similar planes of its time. Only about 400 AEG (G-IV) aircraft were produced, 50 of which were still in use near the end of the First World War.

WAR TROPHY

The machine, brought to Canada as a war trophy in 1919, became part of the inventory of the Canadian War Museum and remained in storage until 1966, when restoration started. Work was completed by staff of the National Aeronautical Collection, who brought it back to its original condition, including the unusual printed lozenge-pattern camouflage fabric that was used in several forms on German



The AEG (G-IV) at the National Science Museum.

aircraft of this period.

The plane, which was first used late in 1916, weighed 7,986 pounds fully loaded and was powered by two 260-horsepower Mercedes engines. It had a wing span of 60 feet, a length of 31 feet 10 inches and an endurance of four-and-a-half-hours.

GIFT OF UKRAINIAN ART

The Canadian Centre for Folk Culture Studies, of the National Museum of Man, has acquired the major collection of Ukrainian folk art and craft of Dr. Micheal Huculak of Vancouver, British Columbia.

The collection, valued by museum officials at more than \$20,000, represents a lifetime of work. It includes costume pieces from three ethnographic areas of the Ukraine - Hutsulia, Bukovina and Snjatyn - as well as numerous household textile items such as hand-woven wall hangings and towels, ceramics, wood decorative articles, trinket boxes, musical instruments and other attractive material. The ceramic items are made up of folk pottery such as large vases, figurines and containers; some of the trinket boxes are inlaid with pearl and ivory.

Dr. Carmen Roy, chief of the Canadian Centre for Folk Culture Studies, said the collection would be shown as an entity when the National Museum of Man reopens. It is now closed for extensive renovations.

Following the Ottawa showing, the collection will be available for loan to other museums across Canada.

Dr. Roy has also announced the acquisition of another gift, this one from the Women's Council of the Ukrainian Canadian Committee of Hamilton - a woman's costume of the Poltava area of the Ukraine, which will also be displayed when the Museum reopens.

NRC APPOINTS WOMEN DIRECTORS

For the first time in its 54-year history, the National Research Council of Canada will include women on its governing body. Dr. W.G. Schneider, President of NRC, announced recently that the Canadian Government had appointed two female scientists to the 21-member Council. They are Dr. Thérèse Gouin Décarie, a research consultant in psychology at the St. Justine Hospital for Children in Montreal, and Dr. Mary Spencer, a plant biochemist in the Plant Science Department of the Faculty of Agriculture at the University of Alberta, Edmonton.

Dr. Décarie has been engaged for a number of years in research associated with thalidomide children. Her main work has been studies of the intellectual and emotional potentials of thalidomide children and the psychic reactions of parents to their children's handicaps.

Dr. Spencer is engaged in research directed towards gaining an understanding of some of the factors that control the occurrence of chemical reactions in living organisms. Factors being studied are cellular organization and its changes with age, and the production and effects of the hormone ethylene. A second research project in which she is engaged involves an investigation of the mechanism whereby energy of sunlight is transformed to chemical energy in photosynthetic organisms.

NIGER ROAD-BUILDING LOAN

A \$13,200,000-development loan to finance the construction of Unity Road in Niger was announced recently by the Canadian International Development Agency. The loan is interest free and is repayable in 50 years, including a ten-year period of grace.

Unity Road, which will serve the southeast part of Niger, will follow the border between Niger and Nigeria for 265 miles, linking Goure to the areas around Lake Chad. This region is now isolated because the existing road is almost impassible in the rainy season.

By easing access to markets in the cities, the road, which will take four years to build, will stimulate the growth of agriculture, fisheries, mining and the production of arabic gum.

The possibility of Canadian participation in the project was discussed during the visit of President Hamani Diori to Canada last September and was the subject of a feasibility study.

During the visit, Canadian Government representatives reiterated their desire to increase participation in the economic development of Niger, where Canada has had a development assistance program for six years.

CATTLE IMPORT PERMITS

The Minister of Agriculture, Mr. H.A. Olson, has announced that import permits have been granted to 446 applicants to import 612 cattle from Europe this year. Permit-holders are entitled to purchase cattle in France and Switzerland, the only approved European countries, and import them through the Grosse Ile and St. Pierre maximum-security quarantine stations.

The Canada Department of Agriculture received about 1,300 applications to import about 7,000 head of cattle this year. The capacity at the two quarantine stations is slightly over 600 head. The maximum number of cattle allowed for each permit-holder this year is four.

All applications were assessed by a genetic committee and permits were issued according to priorities established by this committee.

Import permits this year restrict the holder to purchasing the breed of animal from the country of origin designated on the application form.

"Because applications for permits are assessed on the basis of project proposals for a particular breed, we feel it is a fair policy to restrict permit-holders to their stated intentions," Mr. Olson said.

In future, imports may be allowed from other European countries and talks are progressing aimed at establishing satisfactory veterinary agreements.

The cattle will undergo preliminary quarantine in Europe and arrive at the maximum security quarantine stations in the autumn. Providing they meet health requirements, they will be released from quarantine next spring.

PAKISTAN FLOOD RELIEF

Canada is sending \$3,540,000 in emergency aid to Pakistan in response to a crisis caused by one of the worst floods in the country's history. The announcement was made recently by the Secretary of State for External Affairs, Mr. Mitchell Sharp.

The major portion, \$3.5 million, will be in the form of food aid to replenish wheat stocks used to feed those affected by the floods. This is in addition to Canada's 1970-71 regular food aid allocation of \$4 million, which is being provided immediately to Pakistan.

The remaining \$40,000 of Canadian aid will be made as a cash grant through the Canadian Red Cross Society for flood relief. The Society has already despatched to the League of Red Cross Societies in Geneva its own donation of \$8,500 to Pakistan and \$3,500 to Nepal, which was also affected by the floods. Canada has also agreed to make a cash grant of \$10,000 through the Canadian Red Cross for relief in Nepal.

The devastating floods in East Pakistan this year have covered 5,000 square miles of land in 14 districts, affecting some 7 million people. Nearly 100,000 houses have been washed away and 300,000 acres of standing crops and seedlings and 30,000 acres of jute have been damaged.



A quarantine on chrysanthemum plants and cuttings is keeping white rust, a fast-spreading fungus infection of these plants, out of Canada.

Imported chrysanthemums must be quarantined for 60 days by the Plant Protection Division of the Canada Department of Agriculture before they can be released for commercial production.

AIR PACT WITH TRINIDAD AND TOBAGO

An air transport agreement between Canada and Trinidad and Tobago was signed recently in Port-of-Spain by Mr. G.A. Rau, Canadian High Commissioner, and Mr. F.C. Prevatt, Minister of External Affairs for Trinidad and Tobago.

The agreement provides for the operation on a regular basis of scheduled air services between Canada and Trinidad and Tobago through intermediate points in the Eastern Caribbean. The designated carriers for each country will be Air Canada and British West Indies Airlines.

This pact, the first to be signed with a Commonwealth Caribbean country, will formalize routes which have been served by Air Canada and by BWIA since May 1969, and will lead to the further development of mutually beneficial and important economic and commercial relations between the two countries.

COMMUNITY HEALTH CENTRES STUDIED

The role of community health centres in meeting health requirements in Canada will be examined as part of the continuing program to introduce cost-reducing recommendations of the task forces on health. The announcement was made recently by Mr. John Munro, Minister of National Health and Welfare, in reporting on the activities of the steering committee on health-care costs.

Agreement to establish a working party to carry out the detailed study of the development and role of community health centres was reached at the July meeting of the health costs steering committee. Areas to be examined include administration, consumer participation, medical staff relationship, services, financing and other related matters.

The federal-provincial steering committee will ask health authorities and representatives of agencies, as well as consumers, to serve on the study group to provide the necessary information and opinions on the community health centres.

At the same meeting discussions were also held with Dr. Gaston Rodrigue, Dr. B.L.P. Brosseau, Dr. W.R. Slatkoff and Mr. E.L. Casey representing the Canadian Hospital Association.

Members of the steering committee and the CHA representatives reviewed areas of mutual concern in connection with the CHA's brief on the task forces' recommendations and have scheduled a second meeting to review ways and means of implementation of the recommendations to restrain costs in hospitals.

The steering committee has received briefs from the Canadian Medical Association, the Canadian Hospital Association and preliminary comments from the Canadian Nurses' Association, as well as briefs from a number of interested associations and private individuals. The committee will meet with association representatives and others at the monthly meetings.

YOUNG FORESTERS EXCHANGE PROGRAM

This summer, 1,860 high school boys are employed as junior forest rangers by the Ontario department of lands and forests. The boys are at work in 74 bush camps, where they take part in projects to learn the importance of natural resources in the province.

At Racine Lake, in Chapleau Forest District, 12 English-speaking students from Ontario share duties and services with 12 French-speaking students from the province of Quebec. In return, 12 Ontario students have gone to Quebec camps at Duchesnay and Montmorency in an exchange program arranged by the two provincial departments of lands and forests.

Junior rangers have been hired by the department every summer since 1944. Each junior ranger must be in good physical condition and 17 years of age on July 1. He receives \$5 a day and his keep for eight six-day weeks during July and August. The boys are supervised both at work and at recreation periods during their time off.

FORAGE-ASSISTANCE SCHEME

To stimulate improvement in farming and encourage the livestock industry in Alberta, the provincial department of agriculture is now giving financial support to farmers converting from cereal- to forage-crop production. The department pays half the cost of forage seed mixtures up to a maximum payment of \$600 for each farmer, retroactive to January 1 on purchases documented by invoices.

Administration of the forage-assistance program is through county or municipal agricultural service boards. Farmers buy grass seed through commercial suppliers and take the receipt or invoice to the service board for a refund. The county or municipality then bills the Alberta agriculture department. Support is provided only for seed for forage or hay mixtures.

Farmers may use their over-quota delivery privilege to deliver up to 400 bushels of grain for funds to buy seed, including forage.

On the basis of an estimated 500,000 acres within the province converted to forage at a cost of \$4 an acre, the total contributions made by the provincial department of agriculture will be \$1 million.

EMPLOYMENT AND SALARIES

The advance estimate of the seasonally-adjusted composite index of employment indicated a drop to

about 126.6 in May from 127.9 in April. With the exception of finance, insurance and real estate, all industry divisions surveyed reported decreases.

Average weekly wages and salaries at the composite level were estimated to be \$126.78, about \$1.61 higher in May than in April. Increases were recorded in manufacturing, construction, trade and service, and decreases in the remaining industries.

Average weekly wages and salaries at the composite level rose by \$1.38 to \$125.17 in April 1970 from \$123.79 in March, up \$8.74 from the April 1969 level of \$116.43. Among the industry divisions, increases in April over March occurred in construction (\$10.48); forestry (\$3.96); finance, insurance and real estate (\$1.55); manufacturing (\$1.37) and service (\$1.01). Decreases occurred in mining (\$2.72) and transportation; communication and other utilities (\$0.55). All regions showed increases.

GUIDELINES FOR NORTHERN PIPELINES

(Continued from P. 2)

portation artery, with its related transportation and communication facilities, will attract exploration companies and all the service activities that are associated with oil and mineral exploration and production operations. As a condition of approval for a pipeline project, industry will be required to ensure appropriate training and employment programs for Indian, Eskimo and Métis people in the North. This will lead to the development of a skilled work force equipped to engage not only in pipeline construction and operation but also in the many other construction, transportation and service industry activities that will be generated as a result of oil and gas resource development. The Federal Government will contribute to this training and re-orientation process through its various programs and support services.

The guidelines indicate that Canadians will be given ample opportunities for financial and other participation in northern pipelines. At the same time, full consideration will be given to the magnitude of the effort that industry will face in financing a northern oil or gas pipeline, as such a project will represent one of the largest capital investments ever undertaken by industry anywhere in the world. The St. Lawrence Seaway for example, and related power projects, cost about \$1 billion; a northern oil pipeline and a gas pipeline will cost about \$5 billion.