



# Bulletin

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## REVISIONS IN MINING TAXATION PROPOSALS

The Minister of Finance, Mr. E.J. Benson, recently outlined for the consideration of provincial governments three major revisions to proposals contained in the Government's White Paper on taxation involving the taxing of the Canada mining industry. The proposed changes were explained in a letter to provincial finance ministers and treasurers as a basis for discussions at their regular quarterly meeting in Ottawa on September 17.

Two revisions would broaden tax incentives for development and processing. The third would recognize the potential combined impact of corporation taxes and provincial mining taxes under the White Paper system. It would make additional "tax room" available to provincial governments and give them flexibility to increase their own revenues or to reduce or selectively alter the total weight of taxes on mining profits.

The expenditures "earnings" depletion (qualifying for deduction from taxable profits) would be widened to include: costs of certain ore-processing

facilities; and certain expenditures connected with major expansions of a mine.

The third change would increase the federal abatement for provincial corporate taxes on taxable production profits from a mine to 25 percentage points from 10 percentage points and reduce the net rate of federal tax to 25 per cent from 40 per cent. This would introduce flexibility for the provinces in adjusting their own rates of corporate tax, mining taxes, or both, to meet conditions in the industry generally or in particular sectors.

### RATIONALE OF MINING TAXES

For many years, special rules have been applied in determining the income derived from mining.

The White Paper on tax reform proposed to revise these rules substantially "to ensure that really profitable projects pay a fair share of the national revenues, as other industries do, and that the inducements offered are efficient". It emphasizes, however, that special rules are still needed for the mineral industry. It recognizes that exploration for and development of mines and oil and gas involve more than the usual industrial risks and that the scale of these risks is quite uncertain in most cases.

Under present tax laws, mining companies enjoy three main concessions: a three-year tax exemption for new mines; automatic depletion allowance of 33 1/3 per cent of production profits; immediate deduction of exploration and development costs.

The White Paper would replace the three-year tax exemption for new mines with a special rule permitting capital costs of fixed assets purchased for the development and operation of a new mine to be charged off against income from that mine as quickly as desired.

This change would take effect in 1974 at the expiration of the period for which the Government in 1967 gave assurances that the three-year exemption would continue.

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The new rule is meant to ensure that in the high-risk business of mining, taxes would not be paid until investments in new projects are recovered, but it would do so on a more economical basis than the present exemption.

The second major change proposed by the White Paper concerns depletion allowances. The existing maximums would continue to apply – generally no more than one-third of production profits – but a taxpayer could run out of depletion allowances unless he continues to explore for and/or develop Canadian mines.

Every \$3 of qualifying expenditures made under White Paper proposals would “earn” the taxpayer the right to \$1 of depletion allowances if and when his production profits permit.

Under this provision, depletion allowances on properties acquired after the date of the White Paper would have to be “earned”. Current automatic allowances would be continued for five years on existing properties as a transitional measure.

TERMS

It is proposed that the White Paper definition of expenditures which would earn depletion be enlarged to include new facilities located in Canada to process mineral ores to “the prime metal stage” or its equivalent. “Prime metal” is the stage at which metal is refined to a relatively pure state and is ready for manufacture or fabrication, e.g., pig iron, ingots.

The abatement system is the method by which the federal tax structure makes room for provincial taxation. In the case of corporate tax, the standard rates in the federal legislation are abated by 10 percentage points, and the provinces levy rates varying from 10 per cent to 13 per cent.

Rates of corporation income tax are applied to “taxable income”, which generally refers to profits remaining after all allowable deductions have been made.

UNIQUE INCENTIVE

In the mining industry, current allowable deductions include a major incentive not enjoyed by other segments of business – the immediate deduction of exploration and development expenditures.

A second special incentive proposed in the White Paper would allow immediate deduction of capital expenditures for new mines.

The timing of these incentives is a benefit, since it enables a mining corporation to write off expenditures immediately rather than over the life of the item or property. This results in an immediate tax saving worth more than a tax saving later.

In addition to the above deductions, a mining corporation would also be entitled to a special earned depletion allowance which would be a further deduction in arriving at taxable income. The proposed maximum earned depletion allowance is 33 1/3 per cent of production profits.

VISITING ANGLER TAKES 200TH TUNA

A British sportsman who has become a regular visitor to Newfoundland reached an impressive milestone in his fishing career on August 14. The three bluefin tuna taken by Mr. Ralph Whitaker of Harrogate, Yorkshire, England, brought his total tuna catch to 200 fish. He took three more the following weekend.

Mr. Whitaker, a 71 year-old bachelor, first visited Newfoundland for big game fishing in 1965, when he caught eight tuna in Conception Bay. Returning in 1967, he accounted for a further 16 of the big bluefins in 12 days of fishing. In 1968 he took 54 and last year, 23.

TUNA TOUGHEST CUSTOMER

Before fishing Newfoundland waters, Mr. Whitaker had acquired considerable experience in big game fishing all over the world. His travels include the Bahamas, Florida Hawaii, California, Panama, British Columbia, Portugal, Malta, Gibraltar and the Red Sea. He classes the bluefin tuna as the toughest competition among all game fish.

A BULL FOR UGANDA

A four-month-old Holstein bull, given to Uganda by Agriculture Minister H.A. (Bud) Olson on behalf of the Canada Department of Agriculture, will be used to upgrade the domestic dairy herds of this East African country.

Mr. Olson named the bull Showcase Canada. He is a son of Avon Glen Joan, an outstanding Holstein cow, and his father is Spring Farm Reflection Ormsby, one of Canada's leading bulls.

Uganda is purchasing 600 pregnant Holstein heifers with money loaned by the Canadian International Development Agency.



The Minister of Agriculture, Mr. H.A. Olson, holds the halter of the bull calf Holstein, Showcase Canada.

## INVESTMENT IN CANADA - MID-YEAR REVIEW

Mr. Jean-Luc Pepin, Minister of Industry, Trade and Commerce, released on August 21 the report *Private and Public Investment in Canada - Outlook 1970 Mid-Year Review*, which indicates that capital spending plans for 1970 by all sectors of the Canadian economy, as reported at mid-year, involve total outlays of \$18 billion. This capital program is slightly larger than the \$17.9 billion that had been planned for 1970 earlier in the year and, if accomplished, would exceed by about 8 per cent the \$16.6 billion spent for similar purposes in 1969.

The report summarizes the results of a recent survey by the Dominion Bureau of Statistics of the investment intentions of selected businessmen, institutions, governments and house-builders. These respondents had been surveyed at the turn of the year, and the present survey asked for any revisions in their investment intentions. Such plans may be further revised as the year progresses and their accomplishment may be affected by factors such as work stoppages in the construction industry and other problems that may arise.

Planned expenditures for both non-residential construction and the acquisition of machinery and equipment have been revised upwards moderately since the beginning of the year - 3 per cent is planned for the purchase of machinery and 1 per cent for non-residential construction outlays. Such programs involve increases of 11 and 14 per cent respectively over outlays made in 1969. Housing expenditures are now expected to total a little more than \$3 billion, about 10 percent below actual spending last year. For new construction, including both housing and other types, total outlays of \$11.4 billion are planned, slightly less than earlier expectations but still 6 percent above the 1969 expenditures.

## BUSINESS INVESTMENT RISE

The most recent survey confirms the earlier indication of a significant rise in business investment in 1970. Earlier plans by businessmen have been revised upward and now involve a 14 percent increase over their expenditures in 1969. A rise of 16 per cent

in non-agricultural business investment will be partially offset by the 9 percent decline expected in capital spending by the agricultural sector.

The most important upward revisions in business investment are in manufacturing and mining, where plans have been expanded by a further 6 per cent over earlier expectations. The present programs involve increases of 31 per cent over those in 1969 in manufacturing and 13 per cent in mining. Plans have also been expanded moderately in the utilities sector. Major contributors to further expansion in these areas are the paper-products industry in the case of manufacturing and electric power in the utilities field. Besides agriculture, there has been some scaling down of earlier plans in the area of commercial construction and in the forestry industry.

The capital programs of institutions and governments have been little changed from those formulated at the beginning of the year and involve increases over those in 1969 of 6 per cent for institutions and 10 per cent for governments.

## PROVINCIAL CAPITAL SPENDING

The report also provides estimates of capital spending in the individual provinces. Revisions to earlier plans have been most marked in the Maritime provinces and in Manitoba, where spending programs have been increased and in Saskatchewan, where they have been reduced. On the basis of these revised estimates the changes from 1969 in capital spending for individual provinces are Nova Scotia (+19 per cent), Prince Edward Island (+16 per cent), Newfoundland (+15 per cent), Ontario (+13 per cent), British Columbia and New Brunswick (+7 per cent), Alberta (+6 per cent), Quebec (+5 per cent), Manitoba (+3 per cent), and Saskatchewan with a decline of 9 per cent.

The Minister, in commenting on the report, stated that the significantly larger investment programs planned for 1970, particularly those in the business sector, reflected underlying confidence in future market prospects, notwithstanding current softness in some sectors.

## FISH FOR VIETNAM

Vietnam is to receive 500 metric tons of preserved fish from Canada for distribution to refugees from Cambodia.

The expenditure of \$450,000 will be provided from Canada's 1970-71 food aid allocation for South and Southeast Asia.

Canada provided \$365,000 for codfish and \$260,000 for milk powder in an emergency food program last year. With the great influx of refugees more supplies are urgently needed.

## MILITARY BASES CLOSE

The Minister of National Defence, Mr. Léo Cadieux, has announced a Government decision to phase out military operations at the Canadian Forces bases at Rivers and Gimli, Manitoba, during the next year. The process will be gradual, lasting until September 1, 1971.

Several government departments, including Regional Economic Expansion and Manpower and Immigration, will be working with the Department of National Defence and local authorities to mini-

mize the disruptive effect on the communities concerned and to help civilian employees find other employment. Armed Forces personnel at the bases will be posted to vacant positions in other units.

At Rivers some 170 civilian and 300 military personnel, and at Gimli 200 civilian and 800 military personnel, will be affected.

Mr. Cadieux said that factors leading up to the decision were a general reduction in the size of the forces, a change in force priorities and the fixed defence budget.

CFB Rivers, located about 30 miles north and west of Brandon, and CFB Gimli, 55 miles north of Winnipeg, have been used primarily for air training by the Canadian Forces. A reduction in the pilot-training program, to meet the requirements of the new force structure, was announced last November by the Department. Other Training Command bases used for aircrew training are at Portage la Prairie and Winnipeg, Manitoba, and Moose Jaw, Saskatchewan.

The change means that of the three primary air training bases in Canada, two still remain in Manitoba, at Portage la Prairie and Winnipeg. Other flying training bases in the country are in the operational category, and do not exceed more than three in number in any one province.

Canadian Forces Base Rivers has been a military establishment since 1940, when the Royal Canadian Air Force set up No. 1 Air Navigation School there. After the Second World War the Canadian Parachute Training Centre and the Canadian Joint Air Training Centre were established at the base.

Canadian Forces Base Gimli was established in 1943, when No. 18 Service Flying Training School was opened there. Following the war, Gimli was used as a summer camp for Reserve squadrons and air cadets and, in 1950, No. 2 Flying Training School was formed. Advanced flying training at Gimli is carried out by No. 1 Canadian Forces Flying Training School, which will be moved to Canadian Forces Base Cold Lake, Alberta, where facilities already exist.

## BIRTHS, MARRIAGES, DEATHS

There were 32,146 births in June (18.3 a thousand population), compared to 30,453 in June 1969. This brought the cumulative total for the first half of 1970 to 183,473 births, 0.2 percent more than in the corresponding period last year.

The total of 17,557 June marriages (10.0 for each 1,000 population), was 5.6 percent more than the 16,156 registered in June 1969, bringing the 1970 cumulative January-to-June total to 69,827 marriages, compared to 66,194 during the first half of 1969.

The total of 12,910 deaths in June (7.4 a thousand population), was an increase of 2.1 per cent over those recorded in June 1969. First-half-year totals were 79,673 in 1970, compared to 78,002 in 1969.

## HOSPITAL FOR NORTHERNERS

Mary Louise Bearhead has been lying unconscious in the Charles Camsell Hospital in Edmonton, Alberta, since she was injured in an automobile accident in 1963. To report to her family on her condition, a nurse from the hospital travels 30 miles to their four-room house, nestled in a creekbed on an Indian reserve.

The staff of the Charles Camsell Hospital is made up of exceptional people. They realize that their patients have special needs — most of them are far away from home, since the hospital serves as a referral base for all northern residents. They also recognize and understand the background and culture of the Indians and Eskimos, and the attendant differences of attitudes towards sickness and disease, dietary habits, and sometimes — especially for the older people — language problems.

Patients at the Charles Camsell get special attention: they are taken on outings — they love car rides — or out shopping and sometimes to a staff member's home for a meal.

The idea of a special hospital for the North came about accidentally, says Elva Taylor, Director of Nursing at the hospital: "It began as a sanatorium for tuberculosis control and as TB began to be more under control we realized the benefits of a separate hospital for northerners. This need still exists, and possibly will continue to exist until "coast-to-coast" means more than a narrow strip of populated area along the southern border. The northern population is scattered. Many still live and work in isolated areas far from health care. Even radio-telephone contact with medical care is incomplete. Some communities can be reached only by chartered aircraft capable of landing on water or snow."

About 40 per cent of the patients are brought in by plane, and most enjoy the flight. An old Indian man, however, wasn't too impressed. He said that he had never been sick, that he wasn't sick when he left home, but they put him on the plane and now he was sick.

Hospital service to the northerners started in 1945 in the old Charles Camsell Hospital — a scattered collection of buildings that originally had been built in 1910 as a Jesuit College. The Department of National Defence converted them into a military hospital in 1944 and, at the end of the war, the buildings were turned over to the Department of National Health and Welfare. The hospital is now run by the Medical Services Branch of the Department, which assumes the role of a "provincial department of health" for the Yukon and Northwest Territories. It supervises both the hospital insurance plan and the public health program for all residents for the Northern Region, geographically one-third of Canada.

Since spring, 56,000,000 trees from provincial nurseries, distributed by the Ontario Department of Lands and Forests, have been planted in Ontario; the principal species were white spruce, black spruce, jack pine, red pine and white pine.

## TREE PEST BATTLE

One of Canada's costliest and most destructive pests, the spruce budworm, has a new enemy.

Dr. Arthur Retnakaran, of the Insect Pathology Research Institute of the Ontario Department of Fisheries and Forestry, Sault Ste. Marie, recently visited Atomic Energy of Canada's Chalk River Nuclear Laboratories to irradiate several adult budworm moths in an AECL Gammacell irradiator.

He is experimenting with the "sterile-male" technique, as well as other methods, to find controls for the spruce budworm, which overruns valuable forest land every year in Eastern Canada. Theoretically, sterile males released in the field compete with normal spruce budworm males.



*Technician John French places budworm moths in a Gammacell unit. The irradiated males will be able to mate with females but there will be no offspring.*

The sterile-male technique of controlling insects involves rearing, sterilizing and releasing males in sufficient numbers to exceed the natural male population. The sterile males then compete with the natural males, and, under appropriate conditions, most of the females will lay sterile eggs. Almost total control can be achieved by repeating the process for a few generations.

The budworm moths were brought to CRNL in glass tubes. They were "knocked out" with a whiff of carbon dioxide. Some were given doses of 25 kilorads, others 30, and afterwards mated.

Dr. Retnakaran found several advantages in working with radiation sources. It is possible to "label" the male sperm of the budworm with a radioactive tracer, so that the female can be checked to determine whether she has mated with an irradiated or a non-irradiated male.

Spraying with insecticides pollutes air and water, but the irradiation technique is a "clean" one. So also is the "juvenile-hormone" technique, which keeps the budworm in the juvenile state much longer than normal, and curtails egg production by the female.

How does one transport 250-newly-hatched spruce budworm moths in cold weather? Dr. Retnakaran, technician John French, and assistant Christopher Rose placed each in a glass tube, which was labelled to show the age of the moth. Protection against temperature variations was achieved by placing the tubes in a box along with a fan and heating element which was plugged into the cigarette lighter of their station wagon.

## SOAPSTONE AVAILABLE FOR ESKIMO ART

Commenting on reports that Eskimos might be prevented from quarrying soapstone for carving purposes because the ground was covered by mineral claims, Mr. Jean Chrétien, Minister of Indian Affairs and Northern Development, stated recently that without a permit or payment of fees, any resident of the Northwest Territories could take reasonable quantities of sand, gravel or stone for his own use from any territorial lands when the surface rights had not been otherwise disposed.

### QUARRYING, NOT MINING

The Minister declared that the quarrying of stone for carving did not constitute mining, and he said he would take steps to have the necessary information regarding soapstone quarries and their location compiled to ensure that surface rights and quarrying rights would not be granted where that would prevent Eskimos from obtaining adequate soapstone supplies. If an Eskimo co-operative desired to take large quantities of soapstone on a regular basis, a quarrying permit or lease could be obtained from the Department of Indian Affairs and Northern Development without difficulty.

Mr. Chrétien added that his Department and the Government of the Northwest Territories had always given assistance to the sculptors and their marketing agency, not only in ensuring the availability of an adequate supply of soapstone but also in encouraging the development of Northern art to its present high level of recognition. He promised that this assistance would continue.

## WIND SPEED ON HIGH BUILDINGS

A new technique for measuring the effect of wind on high-rise buildings has been developed by engineers of the National Research Council of Canada.

Preliminary test results indicate that existing low-speed aeronautical wind tunnels can be successfully adapted for the study of surface wind effects in and around building structures. Cities usually have low-wind speeds because buildings cut down wind. Tall, slab-like buildings deflect part of the wind and, in so doing, push it downward, thereby increasing pedestrian discomfort. Wind speed increases with height, and people at the top of a 600-foot building, for example, may feel some sway

in winds of 60 miles per hour. Also, high winds can cause structural damage and local failures — cracking of walls, plaster, and outside cladding.

Up to now special tunnels have had to be constructed to measure wind effects on the structural frame of buildings and to provide data on wind loads on individual cladding elements, windows, or wall panels. Low-speed wind tunnels have been of little use since their designs are such as to generate an unwanted low turbulence, constant velocity flow across the tunnel working section.

#### NRC'S NEW DESIGN

To overcome this problem, engineers with NRC's National Aeronautical Establishment designed a grid of "spires" shaped and spaced so as to modify the average speed of wind with height, giving the correct scale of turbulence.

A mile-square section of Montreal containing a 33-storey building was chosen as a scale model. The purpose of the projects was to obtain data for comparison of pressure measurements on actual buildings in a typical urban environment with results of model tests in wind tunnels.

"Our spires seem to produce the same kind of wind conditions to the scale model as the real wind," said R.J. Templin, head of the Low-Speed Aerodynamics Section, NRC. "We are getting close to the same magnitude pressure fluctuation on the model as the full scale building for the same wind direction."

"So far, the few measurements we have obtained are promising but our study is not yet completed. Further tests will be carried out this year in the NRC 30-foot wind tunnel, the nation's largest low-speed tunnel. These will be done on a larger scale as a cross-check to prove the first results valid."

#### CONSUMER PRICE INDEX

The consumer price index for Canada (1961-100) rose by 0.5 per cent to 130.5 in July from 129.9 in June. The latest increase was marginally lower than the average June-to-July rise recorded in the past five years, and left the index 3.2 percent above its level of the previous twelve-month. This slower rate of increase, compared to twelve-month periods ending in the earlier part of the year, is largely attributable to a deceleration in the advance of the food and clothing indexes, though other major components also registered slower rates of increase in recent months. From June to July the major contributor to the rise was the housing and food components which rose by 0.6 per cent and 0.5 per cent respectively. The less important recreation and reading index advanced by 1.6 per cent, largely as a result of higher newspaper prices. The transportation index edged up by 0.1 per

cent, while the remaining major components were unchanged from the preceding month.

#### FOOD

The food index rose by 0.5 per cent to 131.6 in July from 130.9 in June. The movement in the latest month marked the fifth consecutive month in which the level of food prices registered smaller increases than in the corresponding month a year earlier. From January to July 1970, the food index moved up by only 1.2 per cent, whereas in the same six-month period last year it advanced by 3.0 per cent. Since July 1969, the food index increased 2.2 per cent, which compares to an average rise of 3.8 per cent in the previous five July-to-July periods. In the last 12 months the price level of food for home consumption moved up by 1.7 per cent, while restaurant meal prices, reflecting a higher service content, advanced by 5.7 per cent. Between June and July, about two-fifths of the rise in the food index was attributable to a 1.4 percent advance in the price of restaurant meals. Food at home, by contrast, recorded an average price increase of 0.4 per cent with mixed movements of component items. Among staples, which registered price increases, bread rose 1.4 per cent, mainly reflecting higher prices in Toronto, while butter and margarine increased 0.3 and 0.7 per cent, respectively. Fresh milk prices were unchanged, while sugar prices declined by 0.6 per cent, to register the first decrease in several months.

#### HOUSING

The housing index rose 0.6 per cent to 131.5 in July from 130.7 in June, exceeding somewhat the rate of increase in this component between these two months in recent years. Higher mortgage interest rates were the major cause of a 0.7 percent rise in the shelter index, with rents and the cost of new houses increasing fractionally. Among household-operation items, a rise in electricity rates in a number of Ontario cities advanced this component by 1.3 per cent from the preceding month to a level over 11 per cent higher than that of a year earlier. Some increases were also recorded in the prices of household textiles, dishes, light-bulbs and a number of cleaning supplies since the preceding month. On the other hand, price declines occurred for floor coverings, garbage cans and lawnmowers.

#### CLOTHING

The clothing index, at 126.9 in July, was unchanged from its June level. While prices of women's wear and footwear rose fractionally since the preceding month, these advances were offset by a decline in men's wear prices, particularly for men's shirts, slacks and windbreakers, as well as for children's wear, and for piece goods. The latest clothing index was 1.7 percent above its July 1969 level.