

Railway Department

PROVINCE OF BRITISH COLUMBIA

ANNUAL REPORT

Year Ended December 31st

1950



VICTORIA, B.C.

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1951

Railway Department

Province of British Columbia

ANNUAL REPORT

Year Ended December 31st

1901



Printed by the Government Printer, Victoria, B.C.

To His Honour CLARENCE WALLACE, C.B.E.,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

I have the honour to present herewith the Annual Report of the operations and activities of the Railway Department for the year ended December 31st, 1950, with Appendices.

L. H. EYRES,
Minister of Railways.

Victoria, B.C., February 23rd, 1951.

VICTORIA, B.C., December 31st, 1950.

The Honourable L. H. Eyres,
Minister of Railways, Victoria, B.C.

SIR,—I beg to submit herewith the Thirty-third Annual Report of the Railway Department, covering the year 1950, together with Appendices.

Your obedient servant,

R. E. SWANSON,
Chief Inspector.

Report of the Railway Department

The Department has supervision of all railways subject to the Provincial Statutes.

The staff of the Department, as of December 31st, 1950, consisted of Chief Inspector, three Inspectors, two draughtsmen, a secretarial stenographer—grade 2, and a senior clerk-stenographer.

The railways supervised by the Department include common carriers, industrial railways, and electric interurban and street-railways.

The Civil Engineering Branch continued in charge of the records of the Department, and co-operated with the Construction Department of the Pacific Great Eastern Railway Company in assisting in right-of-way, land, and other matters.

During 1950 the Mechanical Branch inspected all industrial railways, including logging and mining railways, in British Columbia. This comprised the inspection of all rolling-stock, motive power, road-bed, bridges, and structures. The inspection also covered operation of railway and dispatch systems. A follow-up inspection system which was put into effect in 1949, was continued throughout 1950, so that where an Inspector made recommendations, the same Inspector made a subsequent inspection to see that the work recommended had been carried out.

Due to progress and improvements in motive power, it was found necessary from time to time to adjust regulations to new requirements.

Current duties, such as approval of location and construction plans, sanction and filing of tariffs and operating conditions, have been attended to. Other activities are described in the several sections of this Report.

COMMON CARRIERS

THE PACIFIC GREAT EASTERN RAILWAY

The Railway Department continued in a consultant capacity for the benefit of the existing railway.

Work to be done in 1951 is prescribed in a programme referred to in the Inspecting Engineer's Report.

The Department assists the Operating Department in such matters as right-of-way, improvements, replacements, and unusual undertakings.

The Pacific Great Eastern Railway Construction Department, being a separate entity from the Operating Department, is closely allied to the Railway Department, and the construction of the 82 miles from Quesnel to Prince George is well in hand. A report on this construction is included at the end of the Inspecting Engineer's Report.

Operation—General Manager's Report

The following remarks by the general manager are incorporated in this report:—

Maintenance of Way.—Throughout the year the replacement programme has continued in all departments of track-maintenance, particularly to replacing wooden bridges by concrete walls and fills, rebuilding small wooden bridges, scaling banks, and many other necessary works to ensure the safety of the railway. In addition, 16 miles of badly worn line steel have been replaced with new heavier 85-pound steel on the grades through the Cheakamus Canyon. This work is not yet fully completed, but it is a very valuable asset to the safe and economical operation of the railway.

This betterment programme should be completed fully during the year 1951 by the completion of three or four works, repairing bridges, completing walls, and widening cuts. The work that has been done has shown very valuable results, and we now have

a railway in first-class condition in so far as maintenance of track and structures is concerned.

We had an unfortunate mishap occur in December, when one of our bridgemen, Harry James Fee, fell off a speeder and broke his left arm, and, as a result of the shock, he unfortunately died.

Maintenance of Equipment.—During the year our equipment has been kept in first-class condition, and although additional equipment is gradually being acquired, this is not keeping pace with the increasing business, and, as a result, the car-rental costs keep up to a very high figure.

The following equipment has been purchased and delivery taken during the year: Twenty new ballast-cars, ten rebuilt flat cars, twenty second-hand log-cars, two second-hand oil-cars, and three Pullman troop sleepers converted to mail-cars.

Three troop sleepers, which were purchased three years ago, have been converted into baggage and express cars in our shops at Squamish. This work is still under way. Two additional diesel locomotives have been secured, and there are on order in the coming year six diesel locomotives for delivery in February and March.

All passenger equipment is being equipped with electric lighting. This eliminates all fire-hazards from oil lamps. Fumigation of all coaches is being taken care of.

Operations.—The year 1950 had a very disastrous start, with the first two months resulting in very heavy expenses and a very large decrease in the business handled. This was due entirely to weather conditions, with snow, ice, slides, and blockades, which conditions affected not only the Pacific Great Eastern Railway, but all other railways in British Columbia.

During this period there was a very unfortunate derailment of a train, which resulted in the loss of two employees, Engineer Alec Munro and Fireman Harry Seymour, who were drowned in Seton Lake when their train struck a slide and the engine fell into the lake, carrying them with it.

Flood conditions were experienced, which tied up the line in the month of June due to the overflow of the Birkenhead River, and a week's traffic was lost at this time. In the month of August, while still operating, our connecting service was disrupted during the last week due to the railway strike.

Notwithstanding the loss of traffic throughout the year due to the above-mentioned circumstances, an increase of 6 per cent in earnings will be shown, and 10 per cent in revenue cars moved during the year. This was due to the very heavy movement of lumber and lumber products during the latter portion of this year, and for the first time the number of paying loads handled during the year was up to 10,000.

Prices of material continued to show an increase in the year, and wages were also further increased. There was a freight-rate increase of 16 per cent last June which, however, was far below the increase in the costs of materials and wages.

The barge and tug facilities continued as a bottleneck. The cost of operating this service is increasing each year, and in order to keep the business moving, extra tugs and barges have to be hired continuously at a very high rental charge. The barge and tug are worn out, and they may become disabled at any time. The Railway Company will be facing heavy expenses for replacement of this equipment almost at once.

The operations of the diesel locomotives, which during the year have aggregated approximately one-half of the tonnage handled, have been the means of effecting a saving in our operating costs.

Passenger traffic during the year showed a very considerable decrease, and this condition is one that exists on all railways, as well as on bus lines; it is undoubtedly caused by a decrease in the movement of people, and the air service that is now being established at various points in this territory.

The increase in business and earnings is due entirely to a very considerable increase in the movement of freight, as the territory is being developed and more industries, particularly in regard to lumber, are being established.

As a safety measure in connection with train-order work, it has been necessary during the past two years to replace our telephone-line with new copper wire. This work will be completed early next spring, and we have purchased the necessary material to complete the job during the past year. The old wire had become worn out, and so unreliable that it was not safe for the transmission of train-order work.

J. A. KENNEDY,
General Manager.

Inspecting Engineer's Report

Inspections of the properties of the Pacific Great Eastern Railway have been made pursuant to the terms of the "Railway Act," with special regard to maintenance of way and structures. Items enumerated in subsection (2) of section 178 of the Act were inspected, except rolling-stock and floating equipment.

The Railway Department's Inspectors and the Railway Company's maintenance-of-way officials conferred when making inspections by track-motor during the year 1950. Decisions were noted and afterward compiled in a joint report showing work done in 1950, work to be done in 1951, and other essential remarks. These detailed reports cover bridges, tunnels, buildings, water-supplies, stockyards, and other structures. The 1950 programme outlined in the previous Departmental Report has been undertaken and accomplished with few exceptions, such as the renewal of bridges at Mile 90.2 and Mile 109.9. Bridges around Pavilion Mountain require careful maintenance, and plans should be made for certain replacements in 1952.

Track-ties have been renewed sufficiently to resume the normal annual replacement. Ditching and surfacing improved the track structure sufficiently to remove the bulk of the slow orders. The worn 70-pound rails on 10 miles of the Cheakamus Hill were relaid with new 85-pound rails.

Improvements and safeguards to the road-bed, also reconstruction of the telephone-line (Lone Butte to Williams Lake remains to be completed in 1951), have expedited train movements to meet the increased volume of freight traffic.

The Railway Company's Construction Department awarded all contracts (except Ahbau Creek steel viaduct, to be let in January, 1951) on the Quesnel-Prince George extension. Over one-half of the grading and formation work has been constructed. The Operating Department continued track-laying to 10 miles north of Quesnel Station. The new terminal facilities and industrial sites in North Quesnel yard have been under operation since the fall of 1949.

The increased traffic imposes vigilant precautionary measures, already stressed in previous reports, such as track patrols and inspections, continued betterment and maintenance of supporting or protective structures, and safe operation of adequate rolling-stock.

Subject to the accomplishment of the work to be done in 1951 and the observance of safety measures outlined above, the track should continue to be in good condition for the safe operation of traffic under present train loadings and schedule running time.

C. R. CRYSDALE,
Inspecting Engineer.

LOCOMOTIVE CRANES

Inspection of boilers and safety appliances in shipyards and other industrial plants continued where cranes and other mobile plants operate on tracks.

FOREST FIRE PROTECTION

Inspections for fire-prevention equipment were made on locomotives of all railways, including those subject to the jurisdiction of the Board of Transport Commissioners for Canada, this being a requirement of the Forest Service of the Department of Lands and Forests.

EQUIPMENT INSPECTION BRANCH

CHIEF INSPECTOR'S REPORT

During the year all industrial and common-carrier railways operating under the jurisdiction of the Department operated to full capacity. The usual and extensive heavy repairs necessary to keep motive power and rolling-stock on the railways operating were carried on under the advice and supervision of the Department Inspectors; however, extensive boiler repairs to steam motive power were light during the year due to the heavy repairs made during the previous year.

All logging and mining railways in British Columbia, as well as small industrial railways, were inspected by the Inspectors. This entailed the inspection of all rolling-stock and motive power, road-bed, bridges, and structures. The inspections also covered the operation of railway and dispatch systems. Particular attention was given to safety-first in railway operation, and the follow-up inspection system instituted during the foregoing year was carried through and kept in effect during the year. In many cases follow-up inspections were made to see that the work recommended had been carried out by the companies.

In co-operation with the Department of Mines our Inspectors inspected trackage, locomotives, and cars on mining operations, and the fees accrued from these inspections were credited to the Department of Finance. These inspections included the inspection and hydrostatic test of air-locomotives in the Kootenays and also the electric locomotives at Britannia Mining and Smelting Company. Copies of all reports were forwarded to the Department of Mines.

Inspections were made during the year of the surface haulage at the Sullivan mine of the Consolidated Mining and Smelting Company of Canada, Limited, Kimberley. During the year this company submitted rules and regulations to this Department for the Minister's approval. Subsequent to the approval of the rules and regulations, examinations were conducted under the supervision of Department Inspectors at Kimberley, and all operators were examined and certified.

Two inspections were made during the year of the narrow-gauge railway serving the plant of the Consolidated Mining and Smelting Company of Canada, Limited, at Trail, where several miles of narrow-gauge railway is in operation. Rules and regulations to govern the operation were formulated by the company, and drafts submitted to this office for the Minister's approval. After approval was granted, examinations were conducted at Trail under the supervision of Department Inspectors, and 191 operators were examined and certified. The certificates issued were restricted entirely to this operation. During 1949 safety meetings with respect to narrow-gauge operation were instituted at Trail, and it is gratifying to note no accidents were reported from this operation during the ensuing year.

Inspections were made of the narrow-gauge railway on James Island serving the Canadian Industries Limited and also of the narrow-gauge railway serving the British Columbia Cement Company's plant on Texada Island. The rolling-stock and motive power were inspected on these operations, and, where the size of motive power warranted,

certificates were issued in accordance with the rules and regulations. Where certificates for motive power were issued, the operators were examined, and restricted certificates issued on their behalf limiting them to the particular narrow-gauge operation on which they were employed.

On the standard-gauge logging and mining railways, all motive-power boilers and pressure-vessels were tested and inspected during the year, and the Inspectors supervised the necessary boiler repairs as well as repairs to motive power. Several power-cars used for the transportation of workmen were redesigned and rebuilt during the year under the supervision of the Inspectors, and all rail power-cars used for the transportation of workmen were inspected and certified during the year. The system of power-car certification instituted in 1947 has raised the standard of this type of equipment, so workmen are now transported in an approved and standard type of equipment which is conducive to safety.

A radio-telephone communication dispatch system was installed during the year on the railway of the Canadian Forest Products Limited at Englewood. The operation and installation of this system was checked by Department Inspectors. The use of two-way radio communication between dispatcher and train crews, as made possible by this system of radio communication, is a boon to railway safety, as not only can the dispatcher converse with the locomotive engineers, but engineers can communicate with other engineers and rail-cars and thus ascertain their positions on the railway so rear-end collisions can be avoided. The use of the two-way radio communication does not supersede the regular telephone communication as normally used. All dispatching is normally done on the standard telephone system, and the radio-telephone communication system is used to contact crews once a train is in motion where it would be impossible to contact them when a train has already left a terminal.

The common-carrier railways and the street-railways under Provincial jurisdiction were inspected during the year. These railways were found to be in good condition, the usual replacements and repairs having been carried out by the company. The equipment and rolling-stock were periodically inspected, and the locomotives certified. During the year several miles of street-railway were abandoned in Vancouver, this trackage having been replaced by the use of trolley-buses. Where persons have been seriously injured by street-cars or by other means on common-carrier railways, the rolling-stock or motor power involved was impounded until inspected and released by Department Inspectors. Where fatal accidents occurred, Inspectors made investigations and forwarded reports to the Deputy Minister for the Minister's attention. Where necessary, corrective measures were imposed upon the company to avoid the recurrence of such accidents.

In this respect it is worthy of mention that through insistent efforts on the part of this Department the wye at Hastings Street and Boundary Road of the British Columbia Electric Railway was abandoned and a loop installed with terminal facilities. It is also worthy of mention that the employee-training programme of the British Columbia Electric Railway Company has been further developed during the year, so now the company examines its motormen and diesel-electric locomotive engineers and certificates are issued on their behalf by this Department.

During 1949 the British Columbia Electric Railway Company dieselized its District IV line from New Westminster to Chilliwack with respect to freight haulage. The dieselization of this line has worked out very well, and it was necessary to procure an additional 70-ton diesel-electric locomotive during 1950. This locomotive, as well as the existing three diesel locomotives, was inspected by our Inspectors during the year, and studies have been conducted by this Department with respect to dieselization. The dieselization of this railway has made it necessary to install track circuits to operate the automatic highway warning devices at the King George Highway and the Scott Road crossings. A study was conducted by the Department, and recommendations made with respect to public safety at these crossings.

On Vancouver Island the relocation of the Island Highway in the vicinity of Chemainus presented a dangerous rail-level crossing of the Copper Canyon Railway. A study of this crossing was made by the Department, and automatic warning devices recommended, which are to be installed during the year 1951. A study was also made of the Island Highway crossing of the Elk River Timber Company's railway at Cambelltown, where automatic warning devices were also recommended.

During the year, inspections were made of the standard trackage serving the Nanaimo Pulp and Sulphate Company's plant at Nanaimo, and also the standard trackage serving the Columbia Cellulose Company's plant at Watson Island. In both cases it was necessary to approve close-clearance regulations. The diesel-electric locomotives used at these operations were inspected and certified, and the locomotive engineer at the Columbia Cellulose Company's plant at Watson Island was examined and certified.

Five hundred and eighty-seven inspections covering fire-protective appliances of locomotives were made on the Canadian Pacific Railway, Canadian National Railway, and Great Northern Railway in British Columbia. Reports of these inspections were forwarded to the British Columbia Forest Service and the Board of Transport Commissioners at Ottawa. Each Department Inspector is appointed by the Board of Transport Commissioners at Ottawa as Board of Transport Fire Inspectors so they may act with full authority of the Board of Transport Commissioners on the transcontinental railways. Where defects were found, the Inspectors ordered the locomotives out of service. One hundred and thirty-five inspections were made of fire-protective appliances on steam-locomotives operating on logging and mining railways and Pacific Great Eastern Railway during the year. Forty-five reports of these inspections were filed with the Forest Service.

During the year, inspections were made of the rolling-stock and equipment of the Pacific Great Eastern Railway. The diesel locomotives procured during 1948 and 1949 are working out very well, and considerable savings are being made. Already dieselization has laid up some of the steam motive power on this railway, and when more diesel motive power is procured, no doubt most of the steam-power can be retired. The improvements and facilities installed during 1949 at the Squamish shops are working out very well, and when complete dieselization has been put into effect, the benefits will be fully realized.

Studies of dieselization with respect to motive power on logging-railways were continued during the year. These studies were conducted at the request of various logging companies, and, as a result, a Shay geared steam logging-locomotive is being rebuilt in Vancouver and converted into a diesel hydraulic logging-locomotive. This locomotive, when completed, will have a weight of 50 tons on the drivers, with a starting tractive effort of approximately 30,000 pounds. This locomotive is being built as a pilot model under the supervision of the Department, with the idea in mind to convert other steam-operated geared locomotives over to diesel operation in the future. Recommendations have been made to some of the logging companies with respect to the application of diesel-electric locomotives for log haulage on the main lines.

During the latter part of 1949 an aerial tramway was constructed on Grouse Mountain, adjacent to Vancouver. The operation of this aerial tramway and future aerial tramways was placed under the jurisdiction of the Department, and, consequently, to avail the Department with the best information possible on the design, construction, and operation of this type of transportation and also gather sufficient data so rules and regulations could be formulated to govern this type of transportation in the interest of public safety, Inspectors from the Department made a trip by automobile to winter resorts in the Northwestern United States and Canada, where approximately eighteen passenger-carrying chair-lifts were examined and a report submitted. As a result, rules and regulations were formulated to govern aerial tramways in British Columbia. During the year

1950 two aerial tramways were constructed—one on Hollyburn in West Vancouver and the other to gain access to the chalet on Grouse Mountain in North Vancouver. The Hollyburn Aerial Tramway was ready for operation by the end of 1950, and the second unit on Grouse Mountain—the Grouse Alpine Resorts Limited—was constructed and scheduled for operation during January, 1951. Prior to the construction of these aerial tramways, complete plans and specifications were submitted to the Department for approval. These were checked and approved, and during construction Department Inspectors made periodical inspections and tests of materials. Upon completion, all parts and appurtenances were subjected to rigid tests by the Inspectors.

An inspection was made of the aerial tramway owned and operated by the Red Mountain Ski Club at Rossland during 1950. Certain recommendations were made and carried out in order to bring its operation up to the required standard of the Department. In the operation of aerial tramways a system has been inaugurated where the company is required to make daily inspections and submit monthly reports to the Department of the general operation and all repairs made.

At the request of certain logging companies and in the interest of safety, inspections were made of several logging-trucks, particular attention being paid to the air-brakes on these logging-trucks and also to the bridges over which they operate. In some cases, in the interest of safety, the Inspectors recommended certain changes to the present air-brake system. With respect to logging-trucks not operating on railways, it would appear there is paramount need of a rigid inspection by competent air-brake engineers or inspectors with regard to safety in the operation of air-brakes; also it is felt the bridges and structures over which this heavy equipment operates should be checked by competent inspecting engineers, and in this respect fourteen bridges were examined for the Salmon River Logging Company at Kelsey Bay and a report submitted. The requests for these inspections to be made by the Department have arisen due to the fact that certain railway companies operate logging-trucks in conjunction with their railways, but the trucks are not classed as railway operation. They wished to take advantage of the Department's knowledge of air-brake equipment and bridge inspection in conjunction with logging-trucks.

During the year the British Columbia Electric Railway Company converted several buses for propane operation. The pressure-vessels for the storage of propane for use on these buses were inspected by the Department, and while there is some question as to the Department's jurisdiction over buses, it must be pointed out that where pressure-vessels are used in conjunction with public transportation, inspection by inspecting engineers is essential for public protection. With respect to trolley-buses now replacing street-railways, while an overlap of Governmental jurisdiction appears to prevail, it should also be pointed out the trolley-buses are considered a part of the railway operation by the company.

The warning-signal device or air-horn developed in 1949 which simulates the sound of a standard railroad steam-whistle as used at grade crossings on railways has been widely accepted and acclaimed by railways in the United States and is gradually being adopted in Eastern Canada, as it is felt this warning device is recognized by the public as the warning of an approaching train, whereas the conventional horn with which the diesel locomotives were equipped was confused by motorists for bus or truck horns and also ship whistles where railways are adjacent to navigable waters.

In 1947 a safety-first educational programme was instituted by the Department. This programme was carried forward through 1948, 1949, and the ensuing year, as it was felt the education of workmen as to safe working practices is the foremost and cardinal rule in accident-prevention. It is difficult to judge the direct benefits of this effort on the part of the Department, but it is the general consensus of opinion among the operators of industrial railways that the results justify its continuance on the part of the Department. In October of this year a fatal accident occurred on the Copper Canyon

Railway when a section foreman fell from a moving railway-car and was killed. Upon investigation it was revealed that had the certified operator of the power-car involved in this accident taken the necessary precautions as prescribed by the rules, the accident, no doubt, would have been prevented. In view of the circumstances surrounding this accident, the Department's safety-first educational programme was intensified by holding safety-first meetings at every operation, where the Inspectors lectured the railway employees and explained the rules.

In order to further demonstrate safety to the working personnel of the railways, safety films were obtained through the courtesy of the Canadian Pacific Railway, the films being shown in conjunction with the safety lectures conducted by the Inspectors. These safety meetings, with the showing of safety films, have been highly acclaimed by both management and railway employees.

In order to intensify the competitive spirit for safety in operation on industrial railways, it has been suggested that the Department put up a safety trophy which will be competed for by the various industrial railways each year. The suggestion of a safety trophy appears to have a great deal of merit which would more than justify the small expenditure on the part of the Department.

Following is a report of the inspection work performed during the year 1950:—

Hydrostatic tests applied to boilers	162
Internal and external inspections of boilers	12
Internal-combustion locomotives inspected and certified	14
Internal-combustion locomotive cranes inspected and certified	8
Power rail-cars inspected and certified	57
Diesel-electric locomotives inspected and certified	14
Electric locomotives inspected on narrow-gauge electric rail- ways	18
Locomotives inspected other than hydrostatic tests	137
Number of cars inspected on industrial railways	1,750
Number of cars inspected on common-carrier railways	85
Number of miles of track inspected	1,225
Number of aerial tramways inspected in United States	12
Number of aerial tramways inspected in British Columbia for approval	4
Logging-trucks inspected	12
Miles of logging-truck road inspected	30
Truck-logging bridges inspected	14
Locomotive engineers examined and certified	3
Conductors examined and certified	9
Power-car operators examined and certified	18
Locomotive-crane engineers examined and certified	6
Train-dispatchers examined and certified	4
Internal-combustion locomotive engineers examined and certified	3
Engineers examined and certificates issued, B.C. Electric Railway	4
Engineers examined and certificates issued, Pacific Great Eastern Railway	2
Electric-locomotive operators examined and certified, Con- solidated Mining and Smelting Co. of Canada, Ltd., Trail and Kimberley	191
B.C. Electric Railway street and interurban cars inspected	69

B.C. Electric Railway electric locomotives inspected and certified	13
Accidents investigated on B.C. Electric Railway	26
Fatal accidents on B.C. Electric Railway	5
Accidents investigated on logging-railways	7
Fatal accidents on logging-railways	1
Accidents investigated on Pacific Great Eastern Railway	1
Fatal accidents on Pacific Great Eastern Railway	2
Boiler designs approved by the Department	1
1,600-horsepower diesel-electric locomotive design approved	1
Appliance designs approved	1
Designs approved for aerial tramways	4
New passenger rail-cars built under supervision of the Department	1
New diesel-electric locomotives imported	3
Inspections made of fire-protective appliances on industrial railways	135
Inspections made of fire-protective appliances on Pacific Great Eastern Railway locomotives	10
Inspections made of fire-protective appliances on locomotives of C.P.R., C.N.R., and G.N.R. for Board of Transport Commissioners	587

R. E. SWANSON,
Chief Inspector.

LIST OF APPENDICES

A list of Executive Council certificates issued is given in Appendix A.

Accidents on railways under Provincial jurisdiction are shown in Appendix B.

Industrial railways operating during the year are shown in Appendix C.

A list of locomotive cranes in industrial plants inspected by the Department is shown in Appendix D.

A summary of the mileage of all railways operating in the Province is shown in Appendix E.

APPENDICES

APPENDIX A

CERTIFICATES ISSUED UNDER THE PROVISIONS OF THE "RAILWAY ACT"

	Certificate No.
Approving operation of Pacific Great Eastern Railway, 1.85 miles north of Quesnel	754
Approving application of B.C. Forest Products Ltd. to construct bridges over Panther Creek and Mosquito Creek, Renfrew District.....	755
Amending Rules and Regulations, Part VIII, pursuant to section 289 of the "Railway Act"	756
Approving increase in the standard freight tariffs, B.C. Electric Railway Co. Ltd.	757
Approving increase in the standard freight tariffs, Pacific Great Eastern Railway Co.	758
Amending Rule 17 (a) of Part III, Rules and Regulations, pursuant to section 289 of the "Railway Act"	759
Ordering all trains approaching crossing of Kingsway at Central Park in Municipality of Burnaby to come to a positive stop before crossing.....	760
Approving issue by B.C. Electric Railway Co. Ltd. of 3½-per-cent general mortgage bonds, 1950 series, and also the sale of same.....	761
Approving application of Minister of Public Works to construct a grade highway crossing over tracks of Bloedel, Stewart & Welch Railway at Brewster Road in the Sayward District.....	762
Approving safety rules governing operation of a tramway at the Consolidated Mining & Smelting Co. of Canada, Ltd., plant at Tadanac.....	763
Amending Certificate No. 737, which approved a grade highway crossing over the line of the B.C. Electric Railway Co. Ltd. at Sandell Road in the Municipality of Surrey	764
Approving construction of grade crossing in Lot 308, Group 2, Langley Prairie, over tracks of the B.C. Electric Railway Co. Ltd.....	765
Approving increase in standard freight tariffs, B.C. Electric Railway Co. Ltd.	766
Approving increase in standard freight tariffs, Pacific Great Eastern Railway Co.	767
Approving application of Columbia Cellulose Co. Ltd. for exemption from standard clearances	768
Approving special rules and regulations of the Consolidated Mining & Smelting Co. of Canada, Ltd., for operation of the Sullivan concentrator haulage-way	769
Approving construction of spur by Pacific Propane Ltd. from the Fraser Valley line of the B.C. Electric Railway Co. Ltd. in vicinity of South Westminster	770
Amending Rules and Regulations, Part I, pursuant to section 289 of the "Railway Act"	771
Approving construction of grade highway crossing over tracks of Victoria Lumber Co. Ltd. in Cowichan-Newcastle District	772

APPENDIX B
ACCIDENT REPORT, 1950

	Class A ¹		Class B ²	
	•Killed	Injured	Killed	Injured
B.C. Electric Railway Co. Ltd.—				
Passengers.....	----	4	----	7
Employees.....	----	87	----	----
Other persons.....	6	17	----	----
Pacific Great Eastern Railway Co.—				
Passengers.....	----	----	----	----
Employees.....	2	18	1	127
Other persons.....	----	----	----	----
Industrial railways—				
Employees.....	----	7	1	----
Other persons.....	----	----	----	----
Locomotive cranes—Employees	----	----	----	----
Totals.....	8	133	2	134

¹Class A: Accidents to persons resulting from movement of trains, locomotives, or cars.

²Class B: Accidents arising from causes other than those resulting from movement of trains, locomotives, or cars.

APPENDIX C
LIST OF RAILWAYS AND SUMMARY OF MILEAGE
Industrial Railways

No. and Owners/Name of Railway	Head Office	Operating	Mileage		Gauge
			Main Track	Sidings, etc., Total	
STANDARD GAUGE					
<i>Mainland</i>					
1. Begbie Pole-yard	Revelstoke	Begbie	0.92	0.921	Standard.
2. Crow's Nest Pass Coal Co. Ltd.	Fernie	Fernie, Coal Creek, Elk River, and Michel	7.41	7.41	"
3. Columbia Cellulose Co. Ltd.	Vancouver	Watson Island	1.89	3.19	"
4. Deeks-McBride Ltd./Deeks Sand & Gravel Co. Ltd.	Vancouver	Coquitlam	1.00	1.99	"
5. Dominion Tar & Chemical Co. Ltd.	Montreal	North Vancouver	4.84	7.00	"
6. Morrissey, Fernie & Michel Railway Co.	Fernie	Fernie, Coal Creek, Elk River	4.50	7.17	"
7. O'Brien Logging Co. Ltd./Northern & Eagle River	Vancouver	Stillwater	5.20	10.80	"
8. Pacific Coast Terminals Co. Ltd.	New Westminster	New Westminster	5.20	5.20	"
Totals, Mainland			25.76	18.92	"
<i>Vancouver Island</i>					
9. Alberta Pacific Lumber	Port Alberni	Alberni district	72.00	10.30	"
10. Bloedel, Stewart & Welch Ltd.	Vancouver	Bloedel	61.00	8.00	"
11. Bloedel, Stewart & Welch Ltd.	Vancouver	Great Central	1.00	1.00	"
12. Bloedel, Stewart & Welch Ltd.	Vancouver	Franklin River	49.00	5.00	"
13. B.C. Forest Products Ltd.	Vancouver	Youbou	40.80	4.90	"
14. B.C. Forest Products Ltd./Renfrew Div., South	Vancouver	Port Renfrew	31.00	3.40	"
15. B.C. Forest Products Ltd./Renfrew Div., North	Vancouver	Port Renfrew	17.50	1.00	"
16. Canadian Collieries (D.) Ltd.	Nanaimo	Nanaimo	3.55	10.24	"
17. Canadian Collieries (D.)/Wellington Colliery Railway	Nanaimo	Union Bay to Bevan	13.00	9.50	"
18. Canadian Forest Products Ltd.	Vancouver	Englewood	37.90	22.50	"
19. Comox Logging & Railway Co.	Ladysmith	Ladysmith	22.00	3.24	"
20. Comox Logging & Railway Co.	Ladysmith	Headquarters	20.22	4.15	"
21. Elk River Timber Co. Ltd.	Vancouver	Campbell River	45.00	5.00	"
22. Hillcrest Lumber Co. Ltd.	Mesachie Lake	Mesachie Lake	6.00	1.50	"
23. H. R. MacMillan Export Co. Ltd./Copper Canyon Railway (Camp No. 1)	Chemainus	Chemainus, Seymour, Cowichan Lake District	46.20	10.92	"
24. H. R. MacMillan Export Co. Ltd./Nanaimo River Railway	Chemainus	Dunsmuir district	17.50	2.75	"
25. Mayo Lumber Co. Ltd.	Paldi	Paldi	0.76	0.10	"
26. Osborn Bay Wharf Co. Ltd.	Mesachie Lake	Crofton	0.33	0.33	"
27. Western Forest Industries Ltd./Gordon River	Vancouver	Cowichan Lake District	31.00	4.00	"
Totals, Vancouver Island			515.76	110.20	"
<i>Queen Charlotte Islands</i>					
28. Powell River Co. Ltd.	Vancouver	Cumshewa	14.00	3.00	"
Totals, industrial railways			555.52	132.12	"
			17.00	687.64	"

NARROW GAUGE									
Mainland									
29. Britannia Mining & Smelting Co. Ltd./Tunnel Railway	Britannia Beach							4.96	36"
30. Consolidated Mining & Smelting Co. of Canada, Ltd.	Trail			3.17		1.79		20.00	18"
31. Consolidated Mining & Smelting Co. of Canada, Ltd.	Trail			9.00		23.37		32.37	18", 36"
32. Dominion Tar & Chemical Co. Ltd.	Montreal			3.00				3.00	30"
Totals, Mainland				38.17		25.16		63.33	
Vancouver Island									
33. B.C. Cement Co. Ltd.	Victoria			1.00		2.00		3.00	36"
34. Canadian Industries Ltd.	Montreal			8.25		1.75		10.00	36" and standard.
Totals, Vancouver Island				9.25		3.75		13.00	
Totals, industrial railways, narrow gauge									
Totals, all industrial railways in British Columbia				602.94		161.03		763.97	
								Standard and narrow.	
								Ditto.	

Common Carrier

35. Pacific Great Eastern Railway	Vancouver			351.50		21.34		Standard.	
						12.89		"	
						5.18		"	
Totals				351.50		39.41		390.91	"

Street and Interurban Electric Railways

36. B.C. Electric Railway Co.	Vancouver			52.41		2.93		55.34 ⁶	
				128.26		41.87		170.13 ⁷	
Totals				180.67		44.80		225.47	
Totals, all lines in British Columbia								1,380.35	

¹ All leased.
² Plus 5 miles leased.
³ Includes 5 miles leased.
⁴ Includes 13 miles leased.
⁵ Leased.
⁶ Includes 1.56 miles leased.
⁷ Includes 60.73 miles leased.

APPENDIX D

LIST OF CRANES AND OTHER AUXILIARY MOTIVE POWER IN INDUSTRIAL PLANTS
INSPECTED BY RAILWAY DEPARTMENT

Alberni Pacific Lumber Co. Ltd.	Crane No. 40929 B.C.
Alberta Lumber Co. Ltd.	Crane No. 42998 B.C.
Anderson Bros. Lumber Co. Ltd.	Crane No. 11905 B.C.
	Crane No. D.R. 302.
Arrowhead Wood Preservers Ltd.	Crane No. D.R. 293.
	Crane No. D.R. 322.
	Crane No. 22633 B.C.
Associated Foundry Ltd.	Crane No. 21532 B.C.
Baxter, J. H., & Co. Ltd.	Internal-combustion Crane No. 1.
Bloedel, Stewart & Welch Ltd.	Crane No. 44666 B.C.
	Crane No. 3843.
	Crane No. D.R. 340.
	Gas Internal-combustion Locomotive No. 50.
Britannia Mining and Smelting Co. Ltd.	6 narrow-gauge electric locomotives.
B.C. Cement Co. Ltd.	Crane No. 21439 B.C.
	4 narrow-gauge gasoline locomotives.
B.C. Forest Products Ltd.	Crane No. 43579 B.C.
	Crane No. D.R. 320.
	Crane No. D.R. 331.
	Crane No. D.R. 319.
	Unloader No. 44213.
B.C. Pulp & Paper Co. Ltd.	Crane No. D.R. 304.
Burrard Dry Dock Co. Ltd.	Crane No. 50514 B.C.
	Crane No. 41298 B.C.
	Crane No. D.R. 292.
	Gas Locomotive Crane No. 4.
Canadian Collieries (D.) Ltd.	Steam-shovel D.R. 301.
Canadian Forest Products Ltd.	Crane No. 42722 B.C.
	Crane No. 43635 B.C.
	Crane No. 43973 B.C.
	Internal-combustion Locomotive Crane No. 97.
	Diesel Locomotive Crane No. 2338.
	Diesel Switcher No. 96.
Capital Iron & Metals Ltd.	Crane No. D.R. 295.
	Crane No. D.R. 299.
	Crane No. 44386 B.C.
Coast Quarries Ltd.	Crane No. D.R. 342.
Columbia Cellulose Co. Ltd.	Diesel-electric Locomotive No. 1.
Consolidated Mining & Smelting Co. of Canada, Ltd., Kimberley	Crane No. 12772 B.C.
	Electric Locomotive No. 1.
	Electric Locomotive No. 2.
Consolidated Mining & Smelting Co. of Canada, Ltd., Trail	12 narrow-gauge electric locomotives.
Deeks Sand & Gravel Co. Ltd.	Gas-locomotive No. 1.
Dominion Bridge Co. Ltd.	Crane No. 44129 B.C.
	Crane No. 44317 B.C.
	Crane No. D.R. 347.
	Derrick Crane No. 19.
Dominion Tar & Chemical Co. Ltd.	Crane No. 44441 B.C.
	Gas-switcher No. 1.
Esquimalt Drydock	Crane No. 22582 B.C.
	Portable Boiler No. D.R. 314.
Evans, Coleman & Evans Ltd.	Crane No. D.R. 316.
Hamilton Bridge Co. Ltd.	Crane No. 12669 B.C.
Hillcrest Lumber Co. Ltd.	Crane No. 40049 B.C.
	Crane No. 44315 B.C.
Jamieson Construction Co. Ltd.	Diesel-electric Locomotive No. 1.
King, M. B., Lumber Co. Ltd.	Crane No. 12430 B.C.

APPENDIX D—Continued

LIST OF CRANES AND OTHER AUXILIARY MOTIVE POWER IN INDUSTRIAL PLANTS
INSPECTED BY RAILWAY DEPARTMENT—Continued

Lions Gate Lumber Co. Ltd.	Crane No. 12370 B.C.
Lumby Timber Co. Ltd.	Crane No. D.R. 343.
Mayo Lumber Co. (1943) Ltd.	Crane No. D.R. 321.
Nanaimo Sulphate & Pulp Ltd.	Diesel-electric Locomotive No. 1.
Northern Construction Co. Ltd.	Crane No. 12321 B.C.
Osborn Bay Wharf Co. Ltd.	Crane No. 21526 B.C.
Pacific Coast Terminals Co. Ltd.	Crane No. 44440 B.C. Auxiliary Boiler No. 03301 B.C. 4 steam-locomotives.
Point Hope Shipyard	Crane No. D.R. 315.
Powell River Co. Ltd.	Crane No. 44893 B.C.
Prince Rupert Drydock & Shipyard	Crane No. D.R. 290.
Robertson & Hackett Sawmill	Crane No. 44584 B.C. Crane No. 12545 B.C.
Sigalet & Co. Ltd.	Crane No. 21089 B.C.
Sooke Lake Lumber Co. Ltd.	Crane No. 22632 B.C.
Timber Preservers Ltd.	Crane No. 43807 B.C. Crane No. D.R. 288.
Timberland Lumber Co. Ltd.	Crane No. 12368 B.C.
Vancouver Creosoting Co. Ltd.	Crane No. D.R. 283. Gas Locomotive Crane No. 6.
Victoria Machinery Depot Ltd.	Crane No. D.R. 291. Crane No. D.R. 305.
Western Bridge & Steel Fabricators Ltd.	Crane No. D.R. 308. Crane No. D.R. 309.
Western Forest Industries Ltd.	Diesel Locomotive Crane No. CCC 142. Crane No. 41276 B.C.
Yarrows Ltd.	Crane No. D.R. 289. Crane No. 376.

APPENDIX E

MILEAGE OF ALL RAILWAYS OPERATING IN THE PROVINCE

	Mainland		Island		Total	
	Main Line	Sidings	Main Line	Sidings	Main Line	Sidings
Under the jurisdiction of the Board of Transport Commissioners for Canada—						
Canadian Pacific Railway	1,857.80	507.00	210.80	42.76	2,068.60	549.76
Canadian National Railways	1,342.00	335.00	90.17	23.03	1,432.17	358.03
Great Northern Railway	140.80	36.60	—	—	140.80	36.60
B.C. Electric Railway (leased)	42.80	20.80	—	—	42.80	20.80
Totals	3,383.40	899.40	300.97	65.79	3,684.37	965.19
Under the jurisdiction of the Provincial Government—						
Pacific Great Eastern Railway	351.50	39.41	—	—	351.50	39.41
B.C. Electric Railway	135.87	24.00	—	—	135.87	24.00
Industrial railways—						
Standard gauge	25.76	18.92	515.76	110.20	541.52	129.12
Standard gauge, Queen Charlotte Islands	14.00	3.00	—	—	14.00	3.00
Narrow gauge	38.17	25.16	47.42	28.91	85.59	54.07
Totals	565.30	110.49	563.18	139.11	1,128.48	249.60
Grand totals	3,948.70	1,009.89	864.15	204.90	4,812.85	1,214.79

Total mileage all railways in British Columbia, 6,027.64.

