

CANADIAN PACIFIC RAILWAY COMPANY
DEPARTMENT OF NATURAL RESOURCES
WESTERN SECTION - ENGINEERING BRANCH

Circular No. 31

Strathmore, Alberta.
March 19th 1923.

INSTRUCTIONS FOR DITCHRIDERS.

General.

Ditchriders in charge of districts are in most cases on a permanent staff form and are employed throughout the year with the privilege of two weeks vacation with pay and such passes as their length of service may entitle them to, when and only when such vacation can be had without detriment to the interests of the Company. A vacation can usually only be granted in the winter months.

Ditchriders after one year's satisfactory service receive an increase of \$5.00 per month, bringing their salaries up to the standard rate. The standard rate for Ditchriders at Watermasters' Headquarters is \$5.00 per month greater than at outside points. The salary of all Ditchriders increases uniformly \$20.00 per month during the period April 1st to October 31st, each year, and decreases again on November 1st, as long as this policy continues.

Headquarters Reservations.

The permanent Ditchriders are provided with house and barn at one of the Headquarters reservations, and it is required that the premises be kept clean and in good order, and that the trees and shrubs be taken care of and extended as time permits. Outside the area required for trees and garden, the total land that may be broken by the Ditchrider for his own use for winter feed, shall not exceed five acres of irrigated land or eight acres of dry land, as the case may be. All the work on this land shall be carried out at the expense of the Ditchrider and without infringing on the time or duties required by the Company. After such land has been in crop two years the portion not required for garden may be graded, smoothed and seeded down to alfalfa or grass of some kind, approved by the Superintendent. The Company will supply the seed and the grading and levelling must be carried out as directed by the Superintendent who may in his discretion employ Company teams for the work at times when this will not interfere with more important work. When Ditchriders elect to use Company land for hay and gardens, it is with the understanding that they make no claim for work done or for crops planted and will not attempt to sell the crop should they resign or be discharged or transferred during the growing season. In some cases an arrangement can be made through the Superintendent whereby some return is received in such cases by means of a payment by the incoming Ditchrider. Any excess of hay, grain, vegetables or fruit grown on Company land shall not be sold or given to outside parties but must be turned over to the Company storehouse or contributed to the camps. At Watermasters Headquarters, Ditchriders, where they are not allowed land as above, will receive from the Company, 5 tons of hay per year in place of the 5 to 8 acres of land allowed the outside Ditchriders.

Stock Required and Allowed.

Ditchriders are required to provide two horses as may be necessary for covering their districts properly, and not more than two colts or young horses in addition are allowed on the headquarters reservation.

Ditchriders may for their own use have not more than two cows and their calves, one sow and pigs and not over 100 poultry at any one time, where all are managed so as not to interfere with their duty to the Company.

The pigs or fowls at any Headquarters shall be kept in a separate enclosure and not allowed loose around the house or barns. Where cows, pigs or poultry are kept it will be proper and necessary to sell or dispose of the surplus. Ditchriders who desire to work more land or handle more stock should become farmers. The Company only allows pasture for the above mentioned stock. Whenever necessary or desirable, the Company work horses will be pastured at any of the different headquarters where there is land available, and two stalls in the Ditchriders barn will be used for Company stock whenever needed.

The Company may under certain conditions buy horses for new Ditchriders when requested and deduct the price of them from the salary cheques. They will take back the horses if the Ditchrider leaves or is discharged within a year with a reasonable deduction for use, and any other necessary adjustments.

Equipment Required.

The Ditchrider will furnish for use with the two horses, a good stout buckboard or buggy with harness and a saddle that can be used with one horse when the ditch banks are to be patrolled. The Company may furnish this equipment and deduct the price from the Ditchriders salary cheque when requested and will take it back with a reasonable deduction for use if the Ditchrider leaves or is discharged within a year.

The Company will furnish, subject to proper care and use, rubber boots and such small tools and equipment as may be required by the work.

Boarding Men and Teams.

It is expected that under usual circumstances, it will be the duty of the Ditchrider to board a few men where there is no camp convenient and this is an economy in conducting the Company work. The Ditchrider will be paid at a standard rate per meal for this accommodation.

When Company teams are fed from the Ditchrider's supplies, the feed consumed will be paid for at a fair price for hay and grain delivered at the Ditchriders headquarters as determined by the Superintendent or the Company may return to the Ditchrider the hay and grain used instead of cash.

Field Duties.

The Ditchrider is expected to take a pride in his district and consider that he is responsible for the good name of the Company, dealing with firmness, diplomacy and absolute fairness with the Water Users and others with whom he is thrown in contact. He must have a conscientious resolve to do his duty by the farmers and the Company. In the winter there is less to do and less pay, but in the summer

the Ditchrider must be willing to work long hours, and any time, day or night in an emergency. From April 1st to October 31st, the Ditchrider should be ready to start work at 7 A.M. and will put in at least 10 hours and carry lunch with him when necessary. The Ditchrider reports to and works under orders from the Watermaster and must not leave his district without obtaining permission of the Watermaster. In making his rounds the Ditchrider will observe the condition of the structures, ditches and telephone lines and should make repairs where needed or report to the Watermaster.

The Ditchrider should consider himself responsible for all Company property and interest in his district and protect them as he would his own. Smoking in Company barns is prohibited and every precaution should be taken to avoid loss by fire. Farm Unit maps are provided showing the boundaries of the district, the ditch system and land ownership by Farm Units numbered in order.

The Ditchrider will keep a daily diary in a book furnished by the Company and which must be turned into the Company before leaving the service. The Diary is used to record information about crops and irrigation for the crop reports and breaks in the ditch and should give a description of work done and notes of important conversations with Water Users, etc. This diary is for the protection of both the Ditchrider and the Company in case of disputes or lawsuits, damage claims, etc., which may come up at a later date.

Water Deliveries and Records.

The Ditchriders first duty is to deliver water to qualified applicants promptly and under the rules laid down. A request card must be signed before or at the time water is delivered, a record of the time of delivery, and amount of water delivered must be made at the time in the "Ditchriders Record Book" which is to be delivered to the Hydrographer, October 1st of each year.

The water measurements, gauge readings and records must be made as directed by the Hydrographer and according to the printed instructions accompanying the Blueprint Discharge Tables. The Ditchriders will make the gauge readings required each day and record them on a card "Form 244B" which is sent into the Hydrographer each week. A weekly report is also made out on the regular Form provided showing all the water delivered or wasted inside of the district.

A weir table appears in the "Ditchriders Record Book" and in the Hydrographers Blueprint Discharge Tables. Further tables and rules are contained in the pamphlet issued under the title "Rules Governing the Measurement of Water."

The Ditchriders record book and report forms should be transmitted through the Watermaster and Canal Superintendent, who will inspect and see that they conform to the regulations. These records are also to be made available for inspection by the Hydrographer at any time, and are filed with him when complete. In entering the acreage of land irrigated, care should be taken to always state second or third irrigation if land is irrigated more than once.

All the land in the Western Section is classified on the assumption that water is delivered over a weir crest 11 inches above the floor of the turnout, and the farmers ditch must be dug to grade starting at the turnout. Where the weir boards are missing, the Ditchrider should replace them as soon as possible and insist on the head ditch being dug to proper grade. There is one matter that must never be neglected for any reason and that is the necessity of reporting to the Watermaster where delivery of

water is requested but for any reason cannot be made within the 48 hours allowed. Such cases must be reported through the regular channels to the Superintendent of Operation and Maintenance.

The Ditchrider must know where all the water in his district is going and account for it in the reports. In making a delivery to a farmer or turning water in a dry ditch, it must always be followed down to the point of delivery and if alright, patrolled thereafter as required to insure service.

No one outside the Company employees should be allowed to operate or interfere with the gates, division boxes, or structures or infringe on the C.P.R. property, except as directed by the Ditchrider or in an emergency to save serious loss or damage.

Maintenance of Ditches.

The Ditchriders shall be engaged in maintenance work on ditches, structures and right of way fences when not engaged in delivering water. Gophers, Muskrats and Badgers must be kept out of the ditch banks as far as possible, particularly the first two, as the Badgers follow the Gophers, but all do great damage.

Weeds must be kept off the ditch banks and right of way and grass encouraged as much as possible. Willows are desirable on the outside of the banks and right of way but not inside the canal or ditch. Willows and brush are very good for stopping erosion of ditch banks, so should be used where available and required. The right-of-way and ditch banks are to be kept clean of trash and stop plank are to be neatly piled up. Ditchriders must be willing to use a shovel and not be afraid to jump into the water when necessary. Ditchriders should be able to handle a team and scraper and do rough carpenter work on the timber structures.

Telephone System.

The telephone system is essential to proper communication and to the operation of the system and Ditchriders must keep the telephone instrument clean and co-operate with the Western Section Linemen in every possible way. If the Ditchrider finds something out of order he should fix it if he can or report to the Switchboard Operator or Canal Supt. at Strathmore. If communication is interrupted he should patrol the line as promptly as possible and make temporary repairs of the break or short circuit and then report. If the generator handle turns harder than usual there is probably a short circuit somewhere. If the generator handle turns easier than usual, there is probably a break in the line.

Lightning is taken care of by the new vacuum arrestors which will always be in perfect order unless struck by a very heavy lightning discharge, in which case they will be shattered, but without any danger and the telephone is further protected by fuses. The arcing thru the lightning arrestors due to ordinary discharges is also without the slightest danger to the occupants of the house, and simply indicates that the arrestor is operating properly. Ask the Section Lineman just how to handle repairs and get the most out of the telephone and obey the printed instructions as to calling and using the telephone.

Time Books.

At times the Ditchriders may act as Foreman with a small repair crew of men and teams and in such cases will be supplied with Time Books and a book of "Instructions to Watermasters, Ditchriders and Foremen" covering the use of the time books and the keeping of the necessary records of materials

and supplies used. In most cases the Ditchriders simply report work done to the Watermaster who keeps the Time Books as required.

Crop Reports and Fall Work.

A crop report is made covering every quarter section or farm unit in each district where there is any irrigable land in the holding. This report is made in duplicate and the information required should be accurate and complete and written in ink and the form signed by the Ditchrider. The acreage, total yield and yield per acre for each crop should be given and a sketch made on the back of the location of each field. Especial pains should be taken to state the acreage irrigated, and the separate yield of irrigated crops, non-irrigated crops on irrigable land and crop on dryland. Considerable information in regard to the size and location of each man's crop, irrigation, etc. can be accumulated in the diary during the season without interfering with other work, In the Fall, it is desired that the maintenance work on ditches and structures and fences as long as outside work is practicable, leaving the crop reports to be finished up during the winter period. Usually there is work on structures, fences, riprapping and cleaning up that can be done up until sever winter weather sets in and for some time after the ground is frozen. The Watermasters will plan and direct the work with this end in view.

The Spring run-off usually occurs in February or March and requires careful attention to prevent damage. The Ditchrider should anticipate the conditions and have various turnouts and gates shovelled free of snow so that water can be turned out where necessary. The policy is to have storm water or run-off water follow the same lines of drainage that would be the case if no ditches had been dug at all. The Company is then relieved of any responsibility for damage. Gates must be set and dams placed in the ditches so that tis policy will be carried out where possible.

General Policy.

It is desired that the Ditchriders inform themselves as to the policies of the Company and forward them to the extent of their ability. It is desired particularly to establish our reputation for promptness, efficiency and economy in conducting the Company business. The Ditchriders should study irrigation and irrigation farming and measuring water and the best methods of ditch maintenance. It is our policy to aid the farmers by advice as to preparing their lands for irrigation and in irrigating their crops. The Ditchriders should help them directly and through getting them in touch with the Watermasters, Engineers and Superintendents. It is particularly desired to encourage diversified crops and the growing of Alfalfa and mixed grasses. It is the policy to deliver water in good heads which means the establishing of the principle of rotation in delivery as soon as all the lands under a given ditch system desire water at once otherwise they would only be entitled to the legal duty at the rate of one second foot of water for each 150 acres of irrigable land.

Robert S. Stockton

Source: Robert S. Stockton, "Instructions for Ditchriders," 1923. Irrigation Research Project (W.L. Jacobson) Collection, Series 2, M-3761-34, Glenbow Archives, Archives and Special Collections, University of Calgary. [transcribed by Eileen McElroy, 28 April 2020]