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# SPECIAL RULES

CONDUCT AND GUIDANCE

OF THE.

Persons Acting in the Management and of all Persons Employed in or about

## THE MINES

OF THE

DOMINION MON AND STEEL COMPANY, LIMITED.

1916.

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For Definitions see Page 31

## SPECIAL RULES

For the Conduct and Guidance of the Persons acting in the Management and of all Persons Employed in or about the Mines of the DOMINION IRON AND STEEL COMPANY, LIMITED at WABANA MINES, BELL ISLAND, NFLD

NOTE:—Besides these rules, managers and foremen shall familiarize themselves with the Acts relating to Government regulation of mines. These rules are not supposed to cover all or any official's or workman's duties or actions.

## MANAGER: (Resident Superintendent.)

I. The manager shall have supervision and control of the mines. He shall appoint such competent persons as may be necessary for carrying out the provisions of these rules, and shall, to the best of his power, enforce the observance of the Acts and Special Rules, and he must carry out and provide all matters, things, machinery and structures, whatever suitable and necessary for the safety of the mine and all its parts. In his absence his duties shall be performed by such persons as he may appoint.

2. He shall cause an abstract of the Acts

and Special Rules to be posted up in some conspicuous place on the surface at or near the mine and shall generally perform all duties placed upon him by the Acts.

## UNDERGROUND MANAGER.

3. The underground manager shall each day attend personally to his duties in the mine and see that the provisions of the Acts and Special Rules are carried out in the strictest manner possible, and see that any deviations therefrom or infringements thereof are promptly dealt with as the Act directs.

4. He shall see that no dangerous practices are allowed in the shooting of the ore, or in the preparation of the charge or the handling of explosives, and shall direct, if necessary, when said blasting is to be done, or may, if he considers the place unsafe, forbid the use of explosives until he considers it safe.

5. He shall see that all reports are duly written each day, and all unusual occurrences in the mine are noted the same day in the daily report kept at the mine for that purpose.

6. He shall make a daily report on his day's labor to the manager, and shall promptly report to him all important matters connected with the working, or any unusual occurrence in the mine, including accidents occasioning injury to workmen.

7. He shall see that necessary printed no-

tices relating to the codes of signals to be used in slopes, inclines, and engine planes, are posted in proper places and that danger and caution-boards are placed where necessary.

8. He shall examine the mine plan furnished by the surveyor, and make himself familiar with the same, and if he notices omission of important detail, shall draw the attention of the manager to the same.

9. He shall from time to time examine all working roads, airways, working places, wastes, stables, dumps, and other parts of the mine, and maintain a constant supervision over them and over timbering, ventilation and lighting of the mine and all operations therein.

10. He shall see that all necessary supplies of timber and brattice, etc., are provided for the use of the mine; arrange for the proper and regular examination and care of all workings, old and new, and see that due attention is paid to ventilation of the mine.

11. He shall consult daily with the overman, and shall at all times exercise every possible care to protect the lives and property entrusted to his care, and must insist on all rules and regulations being strictly adhered to.

12. In the event of his finding a part of the mine or plant unsafe, or in the event of the same being reported to him as unsafe, he shall take such steps as are necessary for the safety of the workmen, removing all workmen except so many as may be necessary to make repairs, etc., and stopping the use of such part or parts of the mine until. defects are remedied.

13. He shall personally engage all blasters and persons handling explosives, and shall satisfy himself that they are the best available men for their several occupations, and shall read over such portions of the Acts and Special Rules as apply particularly to blasters' operations, and shall see that they thoroughly understand these before being engaged.

14. Whenever hereinafter duties are assigned to the underground manager, although not referred to specially in Rules 3 to 13, he shall undertake such duties.

#### OVERMAN.

15. The overman shall personally att ad to his duties in the mine and carry out all the instructions set forth in the Acts and Special Rules, and shall see that the instructions of his superior officer are carried out. He shall promptly report to the underground manager any violation of the Acts and Special Rules.

16. The overman shall see that no dangerous practices are permitted, and in the absence of the underground manager shall car-

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ry out the duties mentioned under the head of underground manager.

17. He shall examine every working place in the mine or section of the mine under his care at least once a day, and as often as the manager or underground manager directs, and shall take report thereof to the underground manager.

18. He shall at once inspect personally such part of the mine as may be reported to him unsafe, or in any way needing his attention, and take such immediate steps as are necessary to render that part safe without endangering the lives of workmen. If he cannot render it safe, he shall withdraw the workmen until such time as the defect has been remedied, and send a special report to the underground manager, and he shall advise all foremen under him of the existence of any dangerous place or plant.

19. He shall see that all fencing required to be done by the Acts shall be erected and kept in repair.

20. He shall see that there is a sufficient quantity of timber and other material sent into the districts where requisitioned by the various foremen under him, and shall report any deficiency in supply to the underground manager.

21. He shall take care that all persons under him in the mine strictly fulfil their respective duties. 22. He shall not allow any person whom he knows to be unskilful or inexperienced to work alone at any operation involving risk. This does not refer to such positions as pumpsman, stableman, or wireman.

23. Wherever hereinafter any duties are assigned to the overman, although not referred to specially in Rules 15 to 22, he shall undertake said duties.

24. The drill foreman shall inform the blasters each shift before the latter go on duty, how and where blasting is to be done, advising them where dangerous roof may be encountered, also the limit of the explosive charge to be used in such places, and any other information which he may possess concerning the safety of the work.

25. He shall personally inspect and examine all holes fired as soon as possible after they are exposed.

26. He shall not permit any drilling whatever to be done until after bottoms of old holes from last drilling shall have been located and examined for explosives by the driller about to commence work.

27. In case of any unfired explosive being discovered in a hole or portion of a hole, he shall report same promptly to his superior officer and shall see that before drilling is begun every precaution is used to destroy the same by such means as may from time to time be advised by his superior officer.

28. He shall see that all drilling machines and tools under his care are, and are kept, in proper order and repair.

29. He shall whenever possible see that his men keep their connections tight, and that proper attention is given to prevent the loss of air by leakage or breaks.

30. He shall see that the wireman examines and repairs, if necessary, the blasting wires to each working place intended to be blasted during the following shift.

31. He shall see that blasters are provided with lanterns, proper batteries, loading sticks, and proper boxes or other such devices as shall be furnished by the Company for the purpose of carrying explosives, and shall instruct them carefully in the use of the same.

'32. He shall see that blasters promptly report any missed or partially fired shots, and whether or not the holes are properly cleaned.

33. He shall see that all information with regard to miss shots, poor explosives, bad caps, unreturned explosives, uncleaned holes, imperfections in wiring or blasting machines, and all other faults and defects, are clearly and truthfully given on his daily reports. He shall also satisfy himself of the accuracy of any reports, or returns' required to be made, by any man under his charge.

34. He shall also report to his superior

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officer any breach of the Acts or Special Rules with reference to the use of handling of explosives, and any failure to do so will render him guilty of an offence against the Acts.

35. He shall impress upon drillers the risk incurred by working alone during the operation of the drill.

36.\* Before beginning drifting for the breaking off of new places, he shall see that all bottoms of old holes are located, and that they are carefully examined for explosives.

37. When approaching other workings the driller, before drilling through, shall, whenever possible, enter these workings and examine in the vicinity of break-through for bottoms of old holes containing explosives.

38. All drill holes shall be properly cleaned to the bottom before being left by the driller.

39. It shall be his duty to dismiss at once any driller found drilling within six inches of an old hole either at the bottom or any other part of the hole, and the drill must be so directed as not to break into an old hole. This practice, even when the old hole has been thoroughly examined for explosive is most dangerous, and absolutely forbidden.

40. He shall give to the foreman face cleaner a list of places to be examined for the next following shift.

## MAGAZINE WAREHOUSE MAN AND THAWING HOUSE KEEPER.

41. All magazines and thawing-houses shall be in charge of a competent person or persons who must exercise caution in the handling of explosives.

42. He shall not deliver explosives which he knows to be in bad condition.

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.ce he 43. The keeper shall thaw explosives only by the regular method provided, using hot water—not too hot for him to dip his hand in and keep it there for a few minutes. The water to be heated in some place more than fifty (50) feet distant from the thawing can; the thawing can must not under any consideration be placed upon or near a fire.

44. The keeper shall open boxes of explosives carefully and only at places provided, and he shall not use any tool of iron or steel except for the sole purpose of withdrawing screws.

45. He shall prevent any persons smoking or carrying anything which might cause combustion from entering the magazine or thawing house or conveying explosives.

46. He shall see that no light is taken into any explosive magazine or thawing-house, . or used when conveying explosives, except such as is specially permitted by the manager.

47. The magazine watchouse man shall

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deliver to the teamster only the probable number of cases of explosives, as authorized by the underground manager, which are required for that particular day, and he shall take from the teamster a receipt for the amount of the explosive delivered by him to each thawing house. He shall keep full particulars of all receipts, and distribution of au explosives in a book to be called the "Explosive Storage Book."

48. The keeper of each thawing house shall, each morning, make a note of the quantity of explosive on hand, and also a note of the quantity received during the day from the teamster, and shall send same to the magazine warehouse man before going off shift.

## BLASTER.

49. The blaster must have been appointed by the underground manager, and must be experienced in the handling of explosives, and be thoroughly familiar with the duties of the position and conditions of the Acts and Special Rules applying to the position.

50. He shall handle explosives with the utmost care.

51. He shall not smoke or allow smoking at any time when on duty.

52. He shall not have matches about him while at the magazine or thawing house.

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53. He shall open boxes of explosives

carefully and only at places provided, and he shall not use any tool of iron or steel except for the sole purpose of withdrawing screws.

54. He shall not use open lamps while handling explosives or assisting in same; he shall use lanterns provided, and shall ha: dle them carefully.

55. He shall thaw explosives only by the regular way provided, using hot water—not too hot to dip his hand in and keep it there for a few minutes. The water must be heated in some place more than fifty (50) feet distant from the thawing can; the thawing can must not under any consideration be placed upon or near a fire.

56. He shall see that the explosive is thoroughly thawed before using; this can be found by feeling the cartridge, but in case of doubt no risk shall be taken.

57. He shall carry explosives into the mine in such special device as shall be supplied for the purpose. The quantity of explosives carried into the mine shall not be greater than the quantity required during the shift. The storage of explosives in the mine is extremely dangerous and strictly forbidden. Any explosive left over from the shift shall be taken out of the mine and returned to the thawing house before going off shift.

58. He shall see when making up a primer that the hole for inserting the detonator in the explosive is made with a small piece of pointed stick cut about the size of the detonator.

59. He shall use nothing but a wooden tamping stick in tamping a hole; the use of iron or steel or other material is strictly forbidden.

60. When charging a hole care should first be taken that it is clean, and that the cartridges are in close touch with each other, as any space left between them is likely to cause misfires.

61. Should the cartridge fit any hole so tightly as to prevent the air from getting out past the cartridge, the blaster must not on any account attempt to force it into the hole; he will at once know when such is the case. Any attempt to force a cartridge which is thus caught feels like pushing against a spring. This practice is most dangerous, and the cartridge must be fired in this position by inserting a primer.

62. He shall see that when only a portion of a cartridge is required, a copper knife is used for the purpose of cutting the cartridge, and the remaining portions of the cut cartridge must be used at once or returned to the thawing house. Care must be taken that any material from a broken cartridge is not left under foot.

63. He shall see that nothing but fine ore dust or fine clay (made up in paper shells if preferred) is used for tamping. The use of

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rags or such other material is strictly forbidden.

64. He shall not make connections between battery and explosives until ready for blasting, and before making connections he shall see that all wires are carefully straightened and ends cleaned, and that all slack wires are cut off, and that wires are not grounded on ore, or tracks, or pipe lines; also that wires are not resting in water. He shall keep his hands as clean and dry as possible.

65. He shall see that blasting battery used in the mine during the shift is taken to the dry house when going off shift. This battery must always be tested between blasting shifts, and if in good condition marked "O.K." for the next following shift, giving date of the shift and the name of the tester. Batteries which have not been tested or which have not been marked "O.K." for the shift, shall not be taken into the mine.

66. He shall exercise care in firing the last shot in the break-through or cross-cut, so that men working in the neighborhood shall not be injured by a blown through shot, and shall first warn them.

67. He shall see that no blasting is done in any section of the mine until after other workmen have left that section, and shall be held responsible for warning them. 68. He shall see that all workmen are at a thoroughly safe distance before firing, and that no shots are fired unless all the men under the direction of the blaster are present at the battery, except in cases where the blaster may require to station his men at various other safe distances to insure the safety of other workmen.

69. In places having bottom or bench holes he shall see that they are fired and examined carefully before firing regularly face or back stop shots.

70. In battery shots he shall allow at least ten minutes to elapse before returning to the working place. In all other cases at least fifteen minutes.

71. He shall see that if any shot misses, the battery is discontinued at once; having assured himself the failure is not due to the wiring connections between battery and the face, the battery must be taken to the surface and another substituted. The defective battery must be marked for the examiner, and also mentioned in the blaster's written report.

72. He shall see that under no circumstances whatever must any explosive be left in the working place.

73. He shall see that when the shift's work is completed all the blasters leave the mine together and that none are missing, and also if one party finishes its share of work before the other it shall wait for the other party.

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74. He shall state in his written report, when wiring, batteries, etc., are defective, or when holes are not properly cleaned. He shall always refuse to fire any place where the holes are not in proper condition.

75. He shall note in his daily report the amount of explosives taken into the mine, the quantity used, and the quantity returned to the thawing house.

76. Careful search must be made after firing each section for miss fires, which must be fired before going off shift, unless it is dangerous to do so, or impossible by reason of holes not being accessible, but want of time shall not be sufficient excuse. Explosives shall not be extracted from a hole which has once been charged, but shall be fired with a primer. In cases of torn off shots it may be necessary to remove sufficient of the explosive to permit the insertion of a primer; this must be done very carefully.

77. All miss fires, particularly those which have not been refired during the shift, and all explosives which he knows to have been lost in the mine, shall be reported in a book kept for the purpose at the overman's office. All foremen shall examine this book before entering upon the duties of the following shift. In the event of any foreman beginning duties in the mine before report is written, he shall see blaster personally and ascertain the conditions before beginning work.

78. When using a battery fitted with safety plug or detachable handle, he shall not give up possession of safety plug or detachable handle while on shift, and not allow any person to operate the battery.

79. He shall use every precaution possible in carrying out all work safely.

80. He shall report any infringement of rules he may notice to the underground manager.

81. Any infringement of the rules subjects the offender to instant dismissal.

## FOREMAN FACE CLEANER.

82. He shall confer with the drill foreman before coming on shift and get a list of places to be examined on that shift. (See also Rule 77.)

83. He shall examine and make all places where men are to begin work safe before permitting miners to begin work.

84. He shall, when unable to make places safe, instruct miners not to begin work, and shall report to the overman or underground manager.

85. He shall, when places become unsafe during working hours, remove all miners except those necessary to remedy the defect, and report immediately to the overman or underground manager, in case he is unable to make place safe.

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86. When taking down loose ore or rock from the face of back stope, or before face is cleaned, he shall not permit men to travel or work underneath face of stope or work within a dangerous distance of same.

87. He shall not when taking down loose ore or rock from any place permit men to travel or work underneath the place or within a dangerous distance of same.

88. He shall when cleaning down back stopes or any other dangerous roof or sides see that no man is permitted to work alone.

89. He shall where men have been withdrawn from a dangerous place have signal boards placed to prevent persons from entering into danger.

90. He shall examine all travelling places and all haulage ways and see that they are in safe condition. He shall secure any dangerous places or report same to overman or underground manager.

91. He shall make a general daily report of his work to the overman.

### MUCK FOREMAN.

92. He must familiarize himself with the details of blaster's report covering previous shift, especially with regard to miss shots, shots not fired or explosive supposed to be in the loose ore. (See also Rule 77.)

93. He shall when entering upon his duties in the mine, before blaster's shift has been completed, or before his report has been written, see blaster personally in order to get above information.

94. He must ascertain from the face cleaner foreman or his representative, the condition of roof or sides, and must not place men where there is any doubt regarding the safety of the roof or sides.

95. He shall not permit his men when back stope is being cleaned to work underneath face or back stope or within a dangerous distance of same.

96. He must remove all workmen from dangerous places except those who may be necessary to remedy the defects, and shall report the same immediately to the overman.

97. He shall in cases where dynamite or other explosives are known to exist in the ore, warn his men to be cautious in shovelling the ore, instructing them not to use picks, or bars, or sledges.

98. He shall report to the overman on bad or heavy roof, miss holes, and dangerous tracks where same come under his notice.

99. He shall give a daily report of all matter under his care.

#### TRACK FOREMAN.

100. He must ascertain from the face cleaner foreman or his representative the condition of the roof and sides, and must not place men where there is any doubt of the safety of roof or sides.

101. He shall not permit his men when back stope is being cleaned to work underneath face of stope or within a dangerous distance of same.

102. He must inspect all working tracks, frogs and switches daily, and see that they are in a satisfactory and safe condition, and report all defects in same to the overman.

103. He must report to the overman regarding all track material necessary in ample time to have same in the mine when required.

104. He must give due attention to all drains and waterways.

#### MINER.

105. A miner shall travel to and from his working place by the regular travelling way provided, and shall not, unless authorized by the overman, travel by any haulage way outside of the recognized travelling road.

106. Should he at any time find his place of work unsafe, either from bad roof or sides or any other cause, he shall at once notify his superior officer of such danger, and before leaving the place shall place the usual warning at the entrance thereof to keep others from entering into danger.

107. He shall not, when face of back stope is being cleaned, work or travel underneath the face of stope or go within a dangerous distance of same.

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108. He shall not, when dangerous ground is being taken down, travel or work underneath the ground or within a dangerous distance or same.

109. In cases where dynamite or other explosives are known to exist in the ore, he must proceed cautiously with the loading of ore, and the use of picks or bars or sledges is strictly forbidden.

110. It shall be the duty of every miner to mine his ore properly and see to all props and take all precautions required by the Acts and Special Rules, and after firing each blast to approach the face cautiously and carefully examine the roofs and sides and do what timbering may be necessary before resuming work or allowing others to do so.

III. In battery shots he shall allow at least ten minutes to elapse before going back to working places, and in all other cases at least fifteen minutes.

112. He shall exercise care in firing the last shot in a break-through or crosscut, so that men working in the neighborhood shall not be injured by a blown through shot, and shall first warn them. He shall, when instructed to undertake blasting, conform and Observe Rules 49 to 81 inclusive thereof.

113. He shall when engaged in deep sinking, see that the bogev or growler is properly attached before the car or cars leave the working place.

