

## CHAPTER 106.

## MINES AND MINING.

## S. F. 282.

AN ACT to amend section twenty-four hundred seventy-eight (2478), of the code; to repeal section twenty-four hundred eighty-four (2484), of the code, and enact a substitute therefor; to repeal section twenty-four hundred eighty-five (2485), of the code, and enact a substitute therefor, to amend section twenty-four hundred eighty-six (2486), of the code, to repeal section twenty-four hundred eighty-seven (2487), of the code, and enact a substitute therefor, to repeal section twenty-four hundred eighty-eight (2488), supplement to the code 1907, and enact a substitute therefor, to repeal section twenty-four hundred eighty-nine (2489), of the code, and enact a substitute therefor, to amend the law as it appears in section twenty-four hundred eighty-nine-a (2489-a), of the supplement to the code 1907, to repeal section twenty-four hundred ninety-three (2493), of the code, and enact a substitute therefor, to repeal section twenty-four hundred ninety-four (2494), supplement to the code 1907, and enact a substitute therefor, relating to mines and mining, safety appliances, means, methods and equipments thereof, the appointment of mine inspectors, defining their powers and duties, requiring surveys of mines and records to be kept thereof, requiring escape and air shafts and equipments and location thereof, fire proof buildings for boiler and engine rooms, safe and convenient traveling ways and equipments thereof, the amount of ventilation, stoppings and breaks-through, means of communication from top to bottom of shaft, slope or drift, and from bottom thereof to the working parts and providing safety equipments for shafts, slopes or drifts and fixing the age within which boys may work in the mine, and providing for the safety of employes where explosives are used, the location of stables, gasoline engines and pumps, and the revocation of certificates of mine foreman in certain cases, defining the duties of mine foreman and definition of mine foreman, the duties of workmen in mines and mining and defining the power and duties of mine owners, lessees, operator and person in charge, the character and kind of illuminating oils and other substances and providing penalties.

*Be it enacted by the General Assembly of the State of Iowa:*

**SECTION 1. Mine inspectors—appointment—vacancies—bond.** Section twenty-four hundred seventy-eight (2478), of the code, is hereby amended and when so amended to read as follows:

“The governor shall appoint three (3), mine inspectors from those receiving certificates of competency from the board of examiners as by law provided, who shall hold their office for a term of three (3) years and until their successor shall be appointed and qualified, subject to removal by him for cause, their term to commence on the fourth day of July, 1911, and at three (3), year periods thereafter, the present incumbents shall continue in office until their successors are appointed and qualified. Any vacancies occurring shall be filled in the same manner as original appointments and the appointee to hold for the unexpired term only. Each inspector shall in no way be financially interested in or connected with any mining property, or directly or indirectly act as the agent, officer or representative of any person, firm or corporation, and shall devote his entire time and attention to the duties incumbent upon him as inspector of mines in the state of Iowa, and shall before entering upon the discharge of his duties, give a bond in the sum of two thousand (\$2000.00) dollars and take an oath to be endorsed upon his bond, with sureties to be approved by the secretary of state, conditioned in accordance with the tenor of the oath. The bond shall be conditioned to faithfully and impartially without fear or favor perform the duties incumbent upon him, which shall be filed with the oath and commission and recorded in the office of the secretary of state.”

**SEC. 2. Removal of inspector.** Section twenty-four hundred eighty-four (2484) of the code, is hereby repealed and the following enacted in lieu thereof:

“Charges of gross neglect of duty or malfeasance in office against any inspector may be made in writing, sworn to and filed with the governor, and must be made by five miners, or one or more mine operators; they shall be accompanied with a bond in the sum of five hundred dollars, running to the state, executed by two or more freeholders, approved and accepted by the clerk of the district court of the county of their residence, conditioned for the payment of all costs and expenses arising from the investigation of the charges, and thereupon the governor shall convene the board of examiners at such time and place as he may designate, giving the inspector and the person whose name first appears in the charge ten days notice thereof. The board, at the time and place fixed, shall proceed to hear, try and determine the matter, and for this purpose shall summon any material witness desired, by either party, and may administer the proper oath to all witnesses. Evidence may also be taken by deposition as in other cases, and continuances of the hearing may be granted in the furtherance of justice and upon the application of either party. After the evidence has been fully heard, the board shall report to the governor the results of its investigation, and if the charges are sustained the inspector shall be forthwith removed by the governor, and in that event the costs and expenses of the hearing shall be awarded against the inspector or the bondsmen as the case may be, with the right, however, upon the part of the aggrieved party to appeal from such findings and order to the district court of any county in the inspector’s district against whom charges were made, by giving notice in writing to the board, or any member thereof, served in the same manner as original notices are served, within ten days from the time of filing the findings with the governor, or if the order of removal is made within ten days therefrom. Upon such appeal all matters shall be heard bearing upon the charges made, and the pleadings may be amended within the discretion of the court in the furtherance of justice. The appeal shall be tried as an equitable action and such order made as the evidence supports and justice demands. Provided that nothing herein contained shall be construed to prevent the governor from proceeding under the law provided for the suspension or removal of state officers for malfeasance or non-feasance in office.”

**SEC. 3. Standard form of reports.** The board of inspectors shall prepare a standard form of reports which shall be uniform for and throughout the state and which shall be used in all cases where reports are required to be made to the district mine inspectors or the board of inspectors as the case may be.

**SEC. 4. Maps of mines—copies furnished mine inspector—surveys ordered—when.** Section twenty-four hundred eighty-five (2485), of the code, is hereby repealed and the following enacted in lieu thereof:

“The owner, operator, lessee or person in charge of any mine shall make or cause to be made an accurate map or plan of such mine drawn to a scale not more than two hundred (200) feet to the inch, on which shall appear the name of the state, county and township in which the mine is located, the designation of the mine, the name of the company or owner, operator, lessee or person in charge, the certificate of the mining engineer or surveyor as to the accuracy and date of the survey, the north point and the scale to which the drawing is made. Every such map or plan shall correctly show the surface boundary lines of the coal rights pertaining to each mine and all sections or quarter section lines or corners within the same; the lines of town lots and streets; the tracks and sidetracks of all railroads, the location of all wagon roads, rivers, streams, ponds, reservations made of coal and mineral. For the underground workings said maps shall show all shafts, slopes, tunnels or other openings to the surface or to the workings of a

contiguous mine; all excavations, entries, rooms and crosscuts; the location of the escape ways, and of the fan or furnace or other means of ventilation and the direction of air currents and the location of permanent pumps, hauling engines, engine planes, abandoned works, fire walls and standing water. A separate and similar map drawn to the same scale in all cases shall be made of each and every seam of coal operated in any mine in this state. A separate map shall also be made of the surface whenever the surface buildings, lines or objects are so numerous as to obscure the details of the mine workings if drawn upon the same sheet with them, and in such case the surface map shall be drawn upon transparent cloth or paper so that it can be laid upon the map of the underground workings and thus truly indicate the local relation of lines and objects on the surface to the excavations of the mine, together with any other principal workings of the mine. Each map shall also show by profile drawing and measurement, the last one hundred fifty (150) feet approaching the boundary lines, showing the rise and dip of the seam. The original or true copies of all such maps shall be kept at the office of the mine and true copies thereof shall also be furnished the state mine inspector for the district in which said mine is located within thirty (30) days after the completion of the same. The maps so delivered to the inspector shall be the property of the state and shall remain in the custody of the said inspector during his term of office, and be delivered to his successor in office. They shall be kept at the office of the inspector and be open to examination of all persons interested in the same, but such examination shall only be made in the presence of the inspector or his office assistant, and he shall not permit any copies of the same to be made without the written consent of the operator or the owner of the property, except as herein and otherwise provided. An accurate extension of the last preceding survey of every mine in active operation shall be made once in every twelve (12) months prior to July 1st of every year and the result of such survey with the date thereof, shall be promptly and accurately entered upon the original map and a true, correct and accurate copy of said extended map shall be forwarded to the inspector of mines in the district in which said mine is located so as to show all changes in plan of new work in the mine, and all extensions of the old workings to the most advanced face or boundary of said workings which have been made since the last preceding survey, and the parts of the mine abandoned or worked out after the last preceding survey shall be clearly indicated and shown by colorings, which copy must be delivered to the inspector of mines within thirty (30) days after the last survey is made. When any coal mine is worked out or is about to be abandoned or indefinitely closed, the owner, operator, lessee or person in charge of the same shall make or cause to be made a completed and extended map of said mine and the result of the same shall be duly extended on all maps of the mine and copies thereof so as to show all excavations and the most advanced workings of the mine, and their exact relation to the boundary or section lines on the surface, and deliver to the inspector a copy of the completed map. The state inspector of mines shall order a survey to be made of the workings of any mine and the result to be extended on the maps of the same and the copies thereof whenever in his judgment the safety of the workmen, the support of the surface, the conservation of the property or the safety of an adjoining mine requires it; and if not made by the owner, operator, lessee or person in charge when ordered by the inspector it shall be made or caused to be made by the inspector and paid for by the state and the amount collected from the owner, operator, lessee or person in charge as other debts are collected."

**SEC. 5. Failure to furnish map—penalty.** Whenever the owner, operator, lessee or person in charge of any mine neglects and refuses for a period of three (3) months to furnish to said inspector the map or plan of such mine or a copy thereof or of the extension thereof as provided for by this act, such owner, operator, lessee, or person shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined one hundred (\$100) dollars and shall stand committed to the county jail until such fine is paid, and in addition thereto the inspector shall make or cause to be made an accurate map or plan of such mine or extension as the case may be, at the expense of the owner, operator, lessee or person in charge thereof; the cost to be paid by the state and recovered by law from the said owner, operator, lessee or person in charge in the same manner as other debts by suit; and it shall be the duty of the county attorney of the county in which such mine is located, at the request of the inspector, to bring such action in the name and for the benefit of the state.

**SEC. 6. Examination or survey upon affidavit of adjoining property owner—expenses, how paid.** Upon affidavit of an adjoining landowner in the vicinity of said mine, or his agents, filed with the inspector of the district stating that it is necessary for the protection of his property to know how near his land the excavations in the mine extend, the inspector shall make an examination or employ a surveyor therefor if necessary, to determine the length and direction of entries and other works toward the land of the applicant and the extent of excavation of same on all of his land, if any, and make report to the inspector to whom the application may have been made; the inspector may in such case permit examination of such map or copies thereof as may be in the possession of the inspector for the purpose of and to aid and assist in determining the location of the workings as herein contemplated. The necessary expenses incurred and compensation of five (\$5.00) dollars per day to the inspector in favor of the state and ten (\$10.00) dollars per day to the surveyor shall be paid by the applicant except when it shall be shown that said applicant's property has been undermined, in which case the expense shall be paid by the mine owner, operator, lessee or person in charge; and in any case where any owner, operator, lessee or person operating a mine, who without permission takes coal from adjoining land he shall be liable for double damages therefor and for all expense caused thereby. If it be found necessary to survey the premises to discover the facts as contemplated by this act the owner or person filing the affidavit shall first give a bond or other security to the inspector in favor of the state in the sum of one hundred (\$100.00) dollars conditioned to pay all costs and expenses incurred thereby.

**SEC. 7. Two places of egress.** Section twenty-four hundred eighty-six (2486) of the code, is hereby amended, and when so amended to read as follows:

“The owner, operator, lessee or person in charge of any mine hereafter constructed and operated by shaft, or one having a slope or drift opening in which five or more persons are employed, shall construct and maintain at least two distinct openings for each seam of coal worked, which in mines operated by shaft shall be separated by natural strata of not less than three hundred (300) feet in breadth, and in mines operated by slope or drift not less than two hundred (200) feet in breadth, through which ingress and egress at all times shall be unobstructed to the employes and persons having occasion to use the same as escape ways or place of exit from the mine.”

**SEC. 8. Escape shafts equipped with stairway—how constructed.** All escape shafts hereafter constructed not provided with hoisting appliances

as hereinafter provided shall have stairs at an angle of not more than sixty (60) degrees in ascent; nor less than two and one-half (2 1-2) feet in width with proper, safe and substantial landings at convenient and easy distances, and equipped with good and substantial hand rails or banisters. If a shaft be used for an escape shaft and air shaft, that part of the shaft used as an escape way shall be divided and partitioned closely with good and substantial material from the part used as an air shaft, all of which shall be kept in safe condition as by this act provided.

**SEC. 9. Escape shafts equipped with hoisting apparatus.** All escape shafts not provided with stairs shall be provided with suitable appliances for hoisting under ground workmen at all times ready for use both day and night, while the workmen are at labor, which hoisting apparatus shall be separate and apart from the hoisting shaft, and the equipment shall include a depth indicator, brake on the drum, steel or iron cage, safety catches on cages, and covers on cages to securely protect any person while on the cage.

**SEC. 10. Underground connections with adjacent mines.** Where two or more mines are connected underground the several owners by joint agreement may use the hoisting shaft, slope or drift of the one as an escape for the other, and the road or traveling ways to the boundary on either side shall be kept clear of every obstruction to travel by the respective operators and the intervening doors, if any, shall remain unlocked and ready at all times for immediate use, and when such communication has once been established between contiguous mines it shall be unlawful for the owner, operator, or person in charge of either mine to close the same without the consent both of the contiguous operators and of the state inspector of mines of the district, provided, that when either operator desires to abandon mining operations, the expense and duty of maintaining such communication shall devolve upon the party continuing operation.

**SEC. 11. Location and construction of escape and air shafts.** No escape shaft or other place of exit or any air shaft or opening for ventilation not including hoisting shafts shall be located or constructed without first giving notice to the state mine inspector and obtain his approval thereof in writing, who shall retain a copy and file in his office and preserve with other records of that mine. The state mine inspector of the district in which any mine is located shall have the right at any time to order any additional air and escape way, shaft or openings therefor or other place of exit as may be deemed necessary for the purpose of furnishing additional ventilation or reasonably necessary means of escape and such additional air and escape ways shall only be used in cases of emergency; but if the owner, operator, lessee or person in charge of the mine feels aggrieved with the order as made by the mine inspector of the district in which the mine is located he shall have the right to appeal from the decision or the order of the mine inspector in such case to the district court, where the action shall be tried as an equitable action, and shall have precedence over any and all other cases, and the first term of such court held after the taking of such appeal shall be the appearance term; provided, however, that in any case the state mine inspector may elect by giving four days' notice to the party taking the appeal, to bring said cause on for hearing before any judge of the judicial district in which such mine is located, who shall make such order as the case demands; provided, however, that from and after the fourth day of July, 1911, it shall be unlawful to construct a furnace shaft in connection with an escape shaft or other means of exit for the employes of a mine, and all furnace shafts hereafter constructed shall be separate and apart from the escape way or means of exit.

**SEC. 12. Escape ways—kept free from foul air, ice and obstructions.** The escape way shall be ventilated and be kept free from vitiated air, accumula-

tion of ice and obstructions of every kind; nor shall steam or heated air be discharged therein during the daytime unless an attendant be kept in charge thereof and the equipment so arranged that the steam or warm air may be readily turned off at any time when required and a conspicuous sign-board placed in plain view indicating the point where the steam or warm air may be turned off as by this act contemplated; and all surface or other water which flows therein shall be conducted by rings or otherwise to receptacles for the same so as to keep the stairway reasonably free from falling water.

**SEC. 13. Traveling ways—how constructed—signboards—inspection—appeal from order of mine inspector.** In any mine affected by this act and every seam of coal or other mineral worked therein, there shall be constructed, kept and maintained safe and accessible traveling ways to and from any and all escape ways or place of exit, which shall be maintained free from falls of roof, standing water or other obstructions and made at least five (5) feet high and seven (7) feet wide. At all points where the passage or traveling ways to the escapement shaft or place of exit intersect, other roadways or entries, conspicuous signboards shall be placed thereat indicating the way to such place of exit. All traveling ways shall be inspected by the mine forman or his assistant at least once each week, and written report of its condition made and filed in the office at the mine which shall be open for examination to all the employes of the mine and such other persons entitled thereto at all reasonable times. Provided, however, that in any case, when in the judgment of the mine inspector of the district where the mine is located it is deemed impracticable by reason of the conditions or strata, to make the traveling way herein referred to five (5) feet in height, then and in that case the traveling way may be made and maintained less than five (5) feet in height and seven (7), feet in width, but in no case shall the traveling way be less than three (3) feet in height or six (6) feet in width. But if any dispute or difference should arise as to the findings or orders of the mine inspector, in the premises, between such inspector and employer operating the mine, or between such inspector and at least five operatives working in the mine, then and in that case the inspector shall furnish, on demand, to the aggrieved party or parties a copy of the findings or orders complained of and he shall also file the originals thereof in the office of the board of state mine inspectors and the aggrieved party or parties may have the right to appeal from said findings and orders to the district court of any county in which said mine is located on the same terms and conditions, so far as applicable, as those provided for the trial and appeal under section 2 hereof. When appeal is taken as herein provided the case shall be docketed and precedence given over all other cases excepting criminal cases where the party is in jail, and the inspector may bring the case on for hearing before any judge of the judicial district where the mine is located by giving five days notice in writing to the opposite party and if the evidence fails to show that the order was not a reasonable one as made by the inspector the findings and order of the inspector shall stand as made by him.

**SEC. 14. Location of buildings.** It shall be unlawful to erect, keep or maintain any inflammable structure or buildings or other material in the space intervening between the main or hoisting shafts, slopes or drifts, and the escapement shaft or other place of exit or any powder magazine in such location or manner as to jeopardize the free and safe exit of the employes from the mine by said escapement shaft or other place of exit in case of fire or other casualty to the main shaft, slope or drift buildings.

**SEC. 15. Boiler and engine rooms to be fire proof—location.** All boiler and engine rooms erected or constructed on the surface at any mine from and after July 4th, 1911, shall be constructed of fire-proof material and in no

case shall the boiler room be placed within sixty (60) feet of the hoisting shaft, slope or drift.

**SEC. 16. Lights at the top and openings of shaft.** In all cases, after twilight, or when by reason of steam or other causes obscuring the plain view of the top and openings of any shaft, there shall be maintained a good and substantial light, but in no case shall an open light or torch be used.

**SEC. 17. Traveling way around bottom of hoisting shaft.** At the bottom of each hoisting shaft there shall be constructed a safe and convenient traveling way around the shaft for employes and animals, and it shall be unlawful for any person to pass across the shaft bottom in any other manner than by the traveling way herein contemplated; except such employes as may be necessary to perform the work at the bottom of the shaft or those engaged in making repairs.

**SEC. 18. Places of refuge—signals—light on front of trip.** On all single track haulage roads wherever hauling is done by machinery or other mechanical device, and on all gravity or inclined planes in mines where it is impractical to construct a separate traveling way and which persons employed in the mines must use while performing their work or travel on foot to and from their work, places of refuge must be cut in the side wall not less than three (3) feet in depth and four (4) feet wide and five (5) feet high, and not more than twenty yards apart unless there be a clear space of not less than two and one-half feet between the car when on the track and the rib or side of the entry of the haulage way; but in no case shall such haulage way be used as a traveling way unless it shall first be determined by the inspector that it is impracticable to construct, keep or maintain a separate traveling way, and in all such cases, unless otherwise determined by the inspector to be impracticable, there shall be kept and maintained a separate traveling way for the employes which shall at all times be maintained in good and safe condition and free from falls of roof and other obstructions. On every such haulage road which is more than one hundred (100) feet in length a code of signals shall be established between the hauling engineer and all points on the road, except where hauling is done by motor; and a conspicuous light shall be carried on the front of every trip or train of trip cars moved by machinery.

**SEC. 19. Entries in which hauling is done by draft animals—how maintained.** All entries hereafter constructed in which the hauling is done by draft animal and wherein the employes perform their work or use as a means of ingress and egress to and from their working places, shall be maintained substantially eight (8) feet in width from one rib or side of the entry or haulage way to the opposite side, which shall be kept free from timbers or other refuse and as reasonably even on the surface of each side of the track as may be reasonably practicable, provided, however, that this section of this act shall not apply to such haulage ways in long-wall work when the inspector of the district where the mine is located shall determine that it is impracticable to maintain the width of the entry or haulage way as herein provided.

**SEC. 20. Time for constructing escape shafts or other exits.** Section twenty-four hundred eighty-seven (2487) of the code, is hereby repealed and the following enacted in lieu thereof:

“In all mines there shall be allowed one year to make escape shafts or other means of exit as provided by law, but not more than twenty persons shall be employed in such mine at any one time until the provisions of the law relating to escape shafts or other means of exit shall have been complied with and after the expiration of the period above mentioned it shall not be

operated until made to conform to the provisions of law with reference to the escape shafts or other means of exit.”

**SEC. 21. Ventilation—measurements of air currents.** The law as it appears in section twenty-four hundred eighty-eight (2488) of the supplement to the code 1907, is hereby repealed and the following enacted in lieu thereof:

“The owner, operator, lessee or person in charge of any mine, whether operated by shaft, slope or drift shall provide and maintain an amount of ventilation of not less than one hundred cubic feet of air per minute for each person employed in the mine, nor less than five hundred cubic feet of air per minute for each mule, horse or other animal used therein, which shall be so circulated throughout the mine so as to dilute, render harmless and expel all noxious and poisonous gases in all working parts of the same; but in no case shall the air current be a greater distance than sixty feet from the working face except when making cross-cuts in entries for an air course, then in that case the distance shall not be greater than seventy feet; provided, however, that in a special case requiring it, the state mine inspector may, in writing grant permission to go beyond the limit herein mentioned. When the air current is carried to the working face of the room in double room mining, such air current shall be treated as that contemplated in this act. The measurements of the air currents as herein contemplated shall be taken at the bottom of the intake and near the mouth of each split thereof, and also near the working face of the entries; and the person in charge of the mine shall be furnished with an anemometer by the owner or lessee of the mine, who shall take the measurements of the air as herein contemplated at least once each week and make a record thereof showing the time and place and when and where measurements were taken, copy thereof shall be retained at the office of the mine where operated, and report sent each month to the state mine inspector of the district in which said mine is operated.”

**SEC. 22. Air currents to be split.** In every mine the air current shall be split and so conducted that not more than eighty employes at any time shall be employed on or in each split except in case of emergency. Provided that the inspector of the district where the mine is located may in writing grant permission for a greater number not to exceed fifty when the required number of cubic feet of air per minute is properly circulated therein.

**SEC. 23. Contrivances for supplying air current.** Artificial means of exhaust steam, fans, furnaces or other contrivances of sufficient capacity shall be kept in operation to supply the air current, but if a furnace is used it shall be so constructed by lining the upcast for a distance for not less than fifty feet or for such greater distance as special cases may be required and determined by the state mine inspector, with indestructible material so that fire cannot be communicated to any part of the works.

**SEC. 24. Doors maintained for directing air current to be closed.** On all haulage ways where doors are maintained to direct the air current, it shall be the duty of the driver or other employes, passing through the same, to see that the same are properly closed.

**SEC. 25. Breaks-through in entries.** All breaks-through in entries except the last one shall be securely closed and all stoppings in breaks-through except the one next to the last in the entries shall be made with some substantial material so as to securely and completely close the same, and thereby prevent the air from passing through or in any part thereof, which shall be subject to the state mine inspector's approval, who is hereby authorized and empowered to require any change to be made in the material or construction for the purpose of and to reasonably comply with the provisions of law and for the purposes intended. The stoppings in the next to the last



break-through in entries may be constructed temporarily of some suitable material until one additional break-through has been made when the temporary stoppings shall be replaced with material as by this act contemplated.

**SEC. 26. Breaks-through in the rooms.** All breaks-through in the rooms, except the last one shall be closed and securely fastened so as to prevent the air from passing through the same, which stoppings shall be of suitable material and subject to the approval of the state mine inspector of the district in which the mine is operated. The mouth or openings of all abandoned rooms shall be securely closed in the manner as provided for permanent stoppings in entries and all abandoned works shall be closed in like manner. All breaks-through in entries must be of an area of not less than twenty-five (25) feet and in rooms not less than twenty (20) feet for the purpose of and to accommodate the air current as herein contemplated.

**SEC. 27. Mine inspector authorized to order changes or cessation of work—failure to comply—penalty.** When the state mine inspector finds the air insufficient or the employes working in unsafe or under improper health conditions, he shall at once give notice to the mine owner or his agent or person in charge, and upon failure to make the necessary changes within such reasonable time as said mine inspector may fix, he shall then and there order the employes, except such as may be necessary to correct the defect and make the repairs, to cease work and remain out of the mine until the defects are corrected and the mine put in proper condition, and any person, employer or employe failing to comply with the order of the state mine inspector relating thereto shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not less than five (\$5.00) dollars and not more than one hundred (\$100.00) dollars.

**SEC. 28. Adequate means of communication—competent men in charge of signals.** Section twenty-four hundred eighty-nine (2489), of the code, is hereby repealed and the following enacted in lieu thereof:

“The owner, lessee, operator or person in charge of any mine shall in all mines operated by shaft, slope or drift, where the voice cannot be distinctly heard, provide and maintain a metal speaking tube or other adequate means of communication and keep the same in complete order from the bottom or interior to the top or exterior, and in all cases where mechanical means are used in any shaft, slope or drift, to hoist or lower employes, the owner, lessee, operator or person in charge of such mine shall keep and maintain a suitable, sober and competent person at the top and bottom in charge of the signals during such time of lowering and raising the employes, who shall be and remain on duty for at least thirty (30) minutes before and after the usual hours for beginning and stopping the ordinary work of the mine.”

**SEC. 29. Safety appliances—other regulations.** In all shafts where the employes are raised and lowered by machinery or otherwise, there shall be provided a good and sufficient brake on the drum so adjusted that it may be operated by the engineer without leaving his post at the levers. Flanges shall be so attached or arranged to the sides of the drum of any engine used, with a clearance of not less than four inches when the whole rope is wound on the drum. The ends of the hoisting cables shall be well secured on the drum and at least two and one-half (2 1-2) laps of the same shall remain on the drum when the cage is at rest at the lowest caging place in the shaft. An index dial or indicator shall be so arranged to show at all times the true position of the cages in the shaft which shall be so attached to the machinery as to furnish constant information and guidance to the engineer; and all

cages used in any shaft shall be equipped with good safety catches and must be suspended between good substantial guides, the cages so constructed over head with boiler iron that falling objects cannot strike persons being hoisted therein, and at all landings and openings at the top of all shafts there shall be maintained an approved safety gate constructed in such manner as to at all times close the opening or entrance to the shaft when the cage is not at rest at that point, and proper or adequate springs at the top of each slope and a trail or dog attached to each train used therein, and not more than ten persons shall be allowed to descend or ascend in any cage at one time or such less number as may be fixed by the state mine inspector; but no person at any time shall be allowed to ride in the shaft or any cage with a car, tools or other material or when such car, tools or material is on the opposite cage, except when absolutely necessary in the performance of work in the making of repair; and no person shall ride upon a loaded trip while in any part of the mine, except the conductor or person in charge thereof or any person in the performance of his duty.

**SEC. 30. Speed of cages—other regulations.** Cages on which employes are riding shall not be lifted or lowered at a rate of speed greater than four hundred (400) feet per minute, and no cage having any unstable or self-dumping platform or device shall be used for the carriage of employes or material other than coal or mineral unless the same is provided with some convenient device by which the cage platform can be securely locked when employes are being conveyed thereon.

**SEC. 31. Competent and sober engineers—duties.** The owner, lessee or operator or any person in charge of any mine shall not place in charge of any engine in and around the mine any but competent and sober engineers who shall not permit any person but those designated to handle, operate, or interfere with it or any part of the machinery except such as may be necessary in making proper and needed repairs, or an apprentice and then only when the engine or machinery is not in use in hoisting or lowering employes or hoisting coal or mineral; and no person shall be permitted to talk to the engineer while in the performance of his duty in hoisting or lowering employes, coal or mineral. There shall be placed in plain view of the engineer while at his post of duty at some conspicuous point, a code of signals as by this act provided, and which shall be in like manner placed at the top and bottom of each shaft, slope or drift; and it shall be the duty of the engineer at least once each day to carefully inspect all of the machinery and apparatus under his charge and carefully note all of its parts, and if any defects appear which will endanger the life or limb of any employe in the use thereof he shall cease operating the machinery until the defects are corrected. No person but the engineer shall be allowed in the engine room except on business connected with the operation of the mine or to repair machinery, and in such case shall immediately retire therefrom when the work is completed or business transacted.

**SEC. 32. Code of signals.** In all mines operated by shaft, slope or drift where machinery is used in the operation of the plant, the following code of signals shall be used between the engineer and other employes for the purpose of operation:

One ring or whistle shall signify to hoist coal or empty cage; and also to stop when the cage is in motion.

Two rings or whistles shall signify to lower cage.

Three rings or whistles shall signify that employes are coming up; when return signal or one ring or whistle is received from the engineer employes shall then be permitted to enter the cage but not before, when one ring or whistle shall be given to start.

Four rings or whistles shall signify to hoist slowly; implies danger.

Five rings or whistles shall signify accident within the mine and a call for stretcher and supplies.

Six rings or whistles shall call for a reversal of the fan.

From top to bottom one ring or whistle shall signify all ready, get on cage.

Two rings or whistles from top to bottom shall signify send away empty cage which shall be answered from the bottom with one ring or whistle and the cage may then be moved.

Provided that the owner, lessee or operator in charge of such mine may with written consent of the state mine inspector add to this code of signals in his discretion when deemed necessary for the efficiency of the mine or the safety of the employes, but any addition thereto shall be posted as by this act provided for the information of the engineer and employes.

**SEC. 33. Caps, timbers and props.** The owner, lessee, operator or person in charge of any mine shall at all times keep a sufficient supply of caps and timbers to be used as props or otherwise, convenient and ready for use and shall send such caps, timbers and props down when requested and deliver them to the places where needed.

**SEC. 34. Sand, soil or clay for tamping purposes.** In all mines where coal is blasted from the solid, the owner, lessee, operator or person in charge shall furnish sand, soil or clay to be used for tamping which shall be delivered to the employe and placed at a convenient distance from the working places ready for use, and so as not to obstruct the employe in the performance of his ordinary duties as a workman; and in such work no person shall be permitted to use any substance or material other than sand, soil or clay for tamping.

**SEC. 35. Sprinkling of dusty roadways.** The owner, operator, lessee or person in charge of any mine shall not permit the accumulation of dust upon and along the roadways; and where the roadway is dry and dusty shall cause the same to be sprinkled at least once each week and as much oftener as conditions may require.

**SEC. 36. Stables—location—construction—not used for storage purposes.** The owner, lessee, operator or person in charge of any mine shall not be allowed to locate a stable, at a point in any mine where the air current supplied to the employes passes through such place and in no case shall such stable be located without first having given notice to the state mine inspector who shall determine the suitability of the place proposed for the location of the stable in any mine in this state; and if approved shall consent thereto in writing, a copy thereof shall be retained and filed in the office of the inspector of mines of the district where the mine is located. The material used in the construction of the stables herein contemplated, shall as near as reasonably practicable be incombustible and such stables shall not be used as a place for storing, or any inflammable material stored therein, except such hay as may be reasonably necessary for one day's use.

**SEC. 37. Gasoline engines—location—approval—and fire extinguishers.** No gasoline engine except gasoline haulage motors where the exhaust is properly cared for or supplies of gasoline therefor shall be located in or near the air current which supplies the employes of any mine with air, but in all cases shall be placed upon the return and located at least twenty (20) feet from any and all traveling ways, but in no case shall any gasoline engine or place for supply of gasoline therefor be located without first having the approval in writing of the state mine inspector who shall determine the suitability of the location of said engine or supplies. The supply of gasoline required for the operation of said engine shall be kept at the place selected, and shall

not exceed twelve gallons at any one time, except that in case of emergency such engine may be temporarily placed where needed and the inspector of the district where the mine is located immediately notified thereof, who shall at once proceed to the mine and determine as to the safety of the employes of the mine while the engine is so operated at the place required, and if in his judgment the operation thereof can be continued with reasonable safety to the employes of the mine at the place required, the owner, lessee or person in charge of the mine may continue the operation thereof while the employes of the mine are at work until the emergency therefor shall have ceased; otherwise the inspector shall order the employes, except such as are required to operate the engine and work connected therewith, to leave the mine until the same is made safe. At all hoisting shafts, air shafts, escape shafts and places of exit, boiler and engine rooms, stables in mines and places where gasoline engines are used, there shall be kept ready for use at all times at least two (2) good, hand fire extinguishers, conveniently placed for immediate use when needed.

SEC. 38. **Telephone system in certain mines.** In all mines where the working parts thereof exceed three thousand (3000) feet from the foot of the slope, shaft or the mouth of a drift as the case may be, a good and substantial telephone system or other like suitable means of communication shall be maintained from the bottom to some suitable and convenient point at all times ready for use, which shall be extended as the works of the mine progress three thousand (3000) feet therefrom.

SEC. 39. **Stretchers, blankets and bandages.** The owner, operator, or person in charge of any mine shall at all times keep in readiness for use in case of accident and at the mine at some convenient place, one good and substantial stretcher for each fifty (50) employes engaged in the operation of the mine, and proper and sufficient blankets for each stretcher, together with a sufficient and reasonable supply of bandages.

SEC. 40. **Annual report—reports of accidents.** The owner, lessee, operator or person in charge of any mine shall on or before the first day of August in each year send to the office of the inspector of the district where the mine is located upon blanks furnished by the state a correct return with respect to the year ending July first of each year, the quantity of coal mined and the number of persons ordinarily employed at, in and around such mine designating the number of persons below and above ground and such other information as required by such blank. In all cases, the owner, operator, lessee, or person in charge of any mine in this state, upon the happening of any accident, by which injury occurs to any of the employes above or below ground, shall immediately report the same to the state mine inspector of the district in which said mine is located, which report shall contain a detailed statement of the extent of the accident, and the manner in which it occurred, which report shall conform to the standard form of reports, as provided by the state mine inspector in such cases.

SEC. 41. **Duties of mine foreman or pit boss.** It shall be the duty of the mine foreman or pit boss in charge of any mine or part thereof to make careful inspection of the mine from day to day by himself or assistant and at such other times as in his judgment conditions may require. He shall give such directions and formulate such rules for the guidance of the men employed in the mine as skillful and safe operation of the mine may require. He shall see that the mines are supplied with props of proper lengths, caps and other timbers necessary to securely prop the roof of such mine, and the rooms wherein the men are employed, and such material shall be conveniently placed for the use of the miners. He shall keep a careful watch over the ventilating apparatus and air-ways, together with all of the stoppings, doors

and other means of directing the air current. He shall keep a record of the boys under sixteen (16) years of age employed by him during the time of school vacation, showing their ages, names and residence of parents or guardian and character of employment, which record shall be kept at the office of the mines and open for inspection at all reasonable times. He shall examine the escape shaft, man-way, the traveling ways leading thereto, or cause them to be examined by his assistant once each day, and written report of the conditions shall be made and filed in the office at the mine, which shall be open for examination at all reasonable times to representatives of the employes and such other persons entitled thereto. A copy of such report shall be sent each month to the state mine inspector of the district in which said mine is operated. If he finds the condition of the escape shaft, man-way or traveling ways impassable or dangerous, he shall immediately notify the employes of the mine thereof, and shall immediately upon the discovery of the defect, place such obstructions at the defective place as may be reasonably necessary to apprise the employes of the danger.

SEC. 42. **"Mine foreman" defined.** The term "mine foreman", as mentioned in this act, and the law of this state, shall mean and be construed to be one in charge of the underground workings or department of the mine or any part thereof, either by day or night.

SEC. 43. **Revocation of certificates.** In any case where the mine foreman, pit-boss, engineer or other person receiving a certificate under the law pertaining to mines and mining within this state, shall have wilfully disobeyed the orders of the mine inspector or have been convicted of a misdemeanor as by this act provided, his certificate shall be revoked, if the evidence warrants upon complaint being filed with the board of examiners who shall proceed to hear the case at such time and place as they may determine, which shall be as soon as practicable after the charges are filed and notice by them given to the accused. The board shall have power to subpoena the witnesses and administer oaths and a majority of the board required to determine the questions at issue; the costs incurred shall be taxed to the losing party and collected as in other cases.

SEC. 44. **Duties of miners or other employes.** It shall be the duty of each employe to examine his working place upon entering the same and shall not commence to mine or load coal or other mineral until it is made safe. Each miner or other employe employed in a mine shall securely prop and timber the roof of his working place therein and shall obey any order or orders given by the superintendent or mine foreman relating to the width of the working place and to the security of the mine in the part thereof where he is at work. Each miner or other person shall avoid waste of props, caps, timbers and other material and when he has props, caps, timbers or other material not suitable for his purpose, he shall place the same at some convenient point near the track and where the same may be readily seen, and inform the mine foreman or other person in charge, of their being unsuitable for the purpose intended. When draw-slate or other like material is over the coal he shall see to it that proper timbers are placed thereunder for his safety before working under the same, and it shall be unlawful and a violation of this act for any person working in a mine at any time to leave any of the doors open that direct the air current after he has passed through the same, but shall closely observe after passing through such doors that the same are properly closed.

SEC. 45. **Caution as to property, doors, etc.** No workmen or other person shall knowingly injure a water guage, barometer, air course, brattice, equipment, machinery or live stock; obstruct or throw open any air-way, handle

or disturb any part of the machinery of the hoisting engine of the mine; open a door of a mine and neglect to close it; endanger the mine or those working therein; disobey any order given in pursuance of law or do a wilful act whereby the lives of persons working therein or the security of the mine or the machinery connected therewith may be endangered; and it shall be unlawful for any workmen or person to place any refuse material or any obstruction in any part of the air-course or any part of the breaks-through in the entries or rooms other than as by this act provided.

**SEC. 46. Intoxicated persons and intoxicants.** No persons shall go into, at or around a mine or the buildings, tracks or machinery connected therewith while under the influence of intoxicants and no person shall use, carry or have in his possession, at in or around the mine or the buildings, tracks or machinery connected therewith, any intoxicants.

**SEC. 47. Examination of drill holes and shots or blasts.** It shall be unlawful for any miner or other person to charge a drill hole with powder or other explosive until the shot examiner shall have first examined the same, and the shot examiner shall forbid the charging of any drill hole with powder or other explosive, if in his judgment he believes it would be unsafe to the employes to discharge the shot as herein contemplated; and in any case where the shot examiner forbids the charging of any drill hole as by this act provided, he shall immediately make a cross with chalk markings at the mouth of the hole when condemned and make an entry thereof in a book retained by him for that purpose, stating the name of the person working in such place, the number of drill holes in such place which he forbids being charged with powder or other explosives and the date thereof, which record shall be retained and kept in-tact for at least one week; and it shall be unlawful for any shot firer or any other person to discharge any shot or blast until it has first been examined; nor shall any person fire a shot or blast which has been condemned by the shot examiner as by this act provided, and in any case when the mine-foreman shall have forbidden the charging of any drill hole or the firing of any shot, no person shall be permitted to charge such hole or fire such shot, and if the shot examiner forbids the charging of a hole or the firing of a shot, the mine-foreman shall not cause the hole to be charged or the shot fired.

**SEC. 48. Certificate of competency.** The law as it appears in section twenty-four hundred eighty-nine-a (2489-a) supplement to the code 1907, is hereby amended by striking out the words "whose daily out-put is in excess of twenty-five (25) tons," as found in the fourth and fifth lines thereof, and substitute therefor, the following: "employing five (5) or more persons therein".

**SEC. 49. Purity of oil.** Section twenty-four hundred ninety-three (2493), of the code, is hereby repealed and the following enacted in lieu thereof:

"Only pure animal or vegetable oil or other means for illuminating purposes equally as safe and free from smoke or offensive odor shall be used in any mine in this state; and for the purpose of determining the purity of oils the state board of health shall fix a standard of purity of the said oils and establish regulations for testing the same, and when so determined and established shall be recognized by all of the courts of this state. And in any case where any material, substance or other means of illumination is used for illuminating purposes as by this act contemplated any refuse part thereof remains after use which gives off any gas or offensive odor shall by the person using it be removed from the mine at the end of his day's work."

**SEC. 50. Sale or use of impure oil—penalty.** That the law as it appears in section twenty-four hundred ninety-four (2494) supplement to the code 1907, is hereby repealed and the following enacted in lieu thereof:

“Any person, firm or corporation either by themselves, agents, or employes selling or offering to sell for illuminating purposes in any mine in this state any adulterated or impure oil, or oil not recognized by the state board of health as suitable for illuminating purposes or other substance to be used for illuminating purposes not equally as safe and free from smoke or offensive odor as oils contemplated by this act, shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not less than twenty-five (\$25.00) dollars or more than one hundred (\$100.00) dollars for each offense; and any mine owner, lessee, operator or employe thereof who shall knowingly use, or any mine owner, lessee, or operator who shall knowingly permit to be used, for illuminating purposes in any mine in this state, any impure or adulterated oil or any oil or other means of illuminating, the use of which is forbidden by this act, shall, upon conviction thereof be fined not less than five (\$5.00) dollars or more than twenty-five (\$25.00) dollars.”

**SEC. 51. Failure to make changes or improvements ordered by inspector.** In all cases arising when not covered by statute it is found necessary that some change, improvement or device is required to reasonably protect the life, health or limb of the employes of any mine or works connected therewith, and the owner, lessee, operator or person in charge, fails or refuses to make the change or the improvement or supply the device needed within a reasonable time after written notice thereof, having been given by the inspector of the district within the district where the mine is located, the inspector shall file a verified petition with the clerk of the district court of the county where the mine is located setting out the facts and thereupon give five days' notice to the accused in the same manner as original notices are given and served, stating the time and place and the name of the judge before whom the case will be tried, who shall hear the evidence offered by either party, and when and where the defaulting party shall be required to appear at the time and place mentioned in the notice which may be at any place convenient for the judge in the judicial district. The proceedings shall be entitled the State of Iowa as plaintiff and the owner, operator or person in charge as defendant, who shall plead on or before noon of the fourth day after notice. At the time and place fixed in the notice the case shall be heard and tried by the judge as in equity, who shall make such order as the evidence supports. The burden of proof shall rest upon the plaintiff to show that the order of the inspector was a reasonable one or the proposed change, improvement or device reasonably required for the purpose intended; and if the evidence in the whole case fails to prove that the order as made by the inspector was a reasonable one or the proposed change, improvement or device necessary for the purposes intended, the judge shall forthwith issue a mandatory order for compliance therewith, and enter the same of record in the district court of the county in which the hearing is had or the mine in controversy located. If the defendant has failed to comply with the order made by the judge, such defendant may be charged with contempt of court and upon conviction thereof be fined not to exceed five hundred dollars (\$500.00) and committed to the county jail until such fine is paid. The clerk of the district court where such petition has been filed shall issue subpoenas at the request of either party, and witnesses shall be required to respond thereto as in other cases, and it shall be a part of the county attorney's official duty to represent the plaintiff in all matters pertaining to the proceedings. Pending such proceedings, the judge may, if in his judgment it is deemed advisable for the safety of the employes, order the mine closed until such changes are made as have been directed by him.

**SEC. 52. Penalties.** In all cases the penalties as provided by the law in sections twenty-four hundred ninety-one (2491) and twenty-four hundred ninety-

two (2492) of the code, shall apply to this act, except when otherwise herein provided.

Approved May 6, A. D. 1911.

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## CHAPTER 107.

### EXPENSES OF MINE INSPECTORS.

S. F. 202.

AN ACT amending section two thousand four hundred eighty-two (2482), supplement to the code 1907, relating to the expense of mine inspectors.

*Be it enacted by the General Assembly of the State of Iowa:*

SECTION 1. **Expenses and supplies—how paid.** The law as it appears in section two thousand four hundred eighty-two (2482), supplement to the code 1907, is hereby amended by adding thereto after the period following the word "duties", at the end of said section, the following:

"The costs and expenses of the office of the mine inspector other than at the capitol, including rental, telephone, office supplies and necessary fixtures shall be paid for by the state, and the bills audited and allowed by the executive council, who shall direct a warrant to issue therefor. The bills for current expense shall be presented monthly and shall not exceed the sum of fifteen dollars (\$15.00) per month for each inspector, whose office is maintained at a place other than at the capitol."

Approved March 25, A. D. 1911.

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## CHAPTER 108.

### INSPECTION AND TEST OF ILLUMINATING OILS.

S. F. 449.

AN ACT to amend the law as it appears in section twenty-five hundred and five (2505) supplement to the code, 1907, as amended by chapter one hundred and forty-seven (147) acts of the thirty-third general assembly, relating to the inspection and test of all illuminating oils kept for sale or sold within this state.

*Be it enacted by the General Assembly of the State of Iowa:*

SECTION 1. **Oil rejected—when.** That the law as it appears in section twenty-five hundred and five (2505) supplement to the code, 1907, as amended by chapter one hundred forty-seven (147) acts of the thirty-third general assembly, be and the same is hereby amended by striking from the seventh line of section twenty-five hundred and five (2505) supplement to the code, 1907, the figures "105" and inserting in lieu thereof the figures "100".

Approved April 15, A. D. 1911.