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PART B.

UNDERGROUND MINERAL MINES.

Drafting note: Proposed Part B is created to logically organize provisions relating to underground mineral mines and contains one chapter: proposed Chapter 14, Requirements Applicable to Underground Mineral Mines.

CHAPTER ~~14.5~~ 14.

REQUIREMENTS APPLICABLE TO UNDERGROUND MINERAL MINES.

Drafting note: Existing Chapter 14.5, concerning requirements applicable to underground mineral mines, is retained as proposed Chapter 14.

§ ~~45.1-161.293~~ 45.2-xxx. Scope of chapter.

This chapter ~~shall be~~ is applicable to the operation of any underground mineral mine in the Commonwealth, and shall supplement the provisions of Chapter ~~14.4:1~~ 11 (§ ~~45.1-161.292:1~~ 45.2-xxx et seq.).

Drafting note: A technical change is made to modernize language.

§ ~~45.1-161.294~~ 45.2-xxx. Regulations governing conditions and practices at underground mineral mines.

A. The Director shall ~~promulgate rules and regulations~~ adopt, in accordance with the provisions of Article 2 (§ 2.2-4006 et seq.) of the Administrative Process Act, regulations necessary to ensure the safety and health of miners and other persons and property at underground mineral mines in the Commonwealth. Nothing in this section shall restrict the Director from ~~promulgating~~ adopting regulations more stringent than regulations ~~promulgated~~ adopted pursuant to the federal mine safety law. Such ~~rules and~~ regulations applicable to underground mineral mines shall establish requirements for the:

1. ~~For protecting~~ Protection of miners from general risks found at underground mineral mines and in mining;
2. ~~For the provision~~ Provision and use of personal protection equipment and devices for the head, feet, hands, and body;

28 3. ~~For the maintenance~~ Maintenance, operation, storage, and transportation of
29 mechanical or electrical equipment, devices, and machinery used in the underground mining of
30 minerals;

31 4. ~~For controlling~~ Control of unstable roof, face, rib, ~~wall~~ floor, and other ground
32 conditions;

33 5. ~~For the handling~~ Handling and storage of combustible materials, including
34 requirements for emergency plans, ~~fire fighting~~ firefighting and emergency rescue, fire
35 prevention and safety features on mine equipment, fire safety in mine structures and other areas,
36 and other flame and spark hazards;

37 6. ~~For the control~~ Control of exposure to airborne contaminants and excessive noise
38 levels;

39 7. ~~For~~ Provision of adequate air quality and quantity through ventilation and other
40 appropriate measures;

41 8. ~~For the safe~~ Safe storage, transportation, and use of ~~explosive~~ explosives and blasting
42 devices;

43 9. ~~For the safe~~ Safe design, operation, maintenance, and inspection of drilling
44 equipment;

45 10. ~~For the construction~~ Construction, installation, maintenance, use, and inspection of
46 boilers, air compressors, and compressed gas systems;

47 11. ~~For the safe~~ Safe design, use, maintenance, and inspection of passageways,
48 walkways, ladders, and other travel ways;

49 12. ~~For the safe~~ Safe design, operation, maintenance, and inspection of electrical
50 equipment and systems;

51 13. ~~For the storage~~ Safe storage, transportation, and handling of materials, including
52 corrosive and hazardous substances;

53 14. ~~For the safe~~ Safe design, use, maintenance, and inspection of guards on moving parts
54 of equipment and machinery;

55 15. ~~For the safe~~ Safe design and operation of chutes;

56 16. ~~For the inspection~~ Inspection, maintenance, safe design, and operation of hoisting
57 equipment and cables;

58 17. ~~For the inspection~~ Inspection, maintenance, and construction of mine shafts;

59 18. ~~For the actions of~~ Actions to be taken by certified and competent persons; and

60 19. ~~For the safe~~ Safe design, operation, maintenance, and inspection of, and the conduct
61 of mining activities at, surface areas of underground mineral mines.

62 B. The Director shall ~~not promulgate any regulations~~ adopt no regulation relating to
63 underground mineral mines ~~which are~~ that is inconsistent with ~~requirements~~ any requirement
64 established by the Act; or ~~which that, when if~~ an operator ~~takes~~ were to take action to comply
65 with the provisions of such regulation, would place the operator in violation of the federal mine
66 safety law.

67 **Drafting note: Language is updated for modern usage and clarity and the term**
68 **"promulgate regulations" is changed to "adopt regulations" in keeping with recent title**
69 **revisions because "adopt" is more widely used and includes the promulgation process.**
70 **The first sentence of subsection A is revised to conform it to its counterpart in proposed**
71 **Chapter 15. In subdivision A 4, the reference to roof, rib, and other conditions is revised**
72 **to conform it to conventional phrasing in proposed Chapter 7 and "floor" conditions are**
73 **added. In subdivision A 7, a requirement of adequate air "quantity" is added.**

74 § ~~45.1-161.298~~ 45.2-xxx. ~~Transportation of miners~~ Adoption of regulations.

75 ~~A.~~ The Director shall ~~promulgate~~ adopt regulations ~~regarding~~:

76 1. Regarding transportation of miners, including regulations regarding (i) the carrying
77 of tools by miners on ~~man-trips~~ mantrips; (ii) the riding of ~~miners~~ any miner, except the
78 motorman and trip rider, inside ~~the cars~~ a car; and (iii) the boarding and ~~unboarding~~
79 disembarking of miners to and from ~~man-trips~~ mantrips;

80 ~~B. Until final regulations promulgated by the Director pursuant to subsection A become~~
81 ~~effective, the following standards shall apply to the matters to be addressed by such regulations:~~

82 ~~1. Each man-trip shall be operated independently of any loaded trip of minerals or other~~
83 ~~material;~~

84 ~~2. All miners, except the motorman and trip rider, shall ride inside the cars; and~~

85 ~~3. Miners shall remain seated while in moving man-trip cars, shall not board or leave~~
86 ~~moving man-trip cars, and shall proceed to and from man-trips in an orderly manner.~~

87 ~~§ 45.1-161.299. Bare wires and cables.~~

88 ~~A. The Director shall promulgate regulations requiring~~ 2. Requiring any ~~bare wires,~~
89 wire ~~and cables~~ any cable ~~other than a ground-wires~~ wire, ~~grounded power-wires~~ conductor,
90 ~~and or~~ trailing-cables cable ~~to be supported by insulators and away from combustible materials,~~
91 ~~roof, and ribs.;~~

92 ~~B. Until final regulations promulgated by the Director pursuant to subsection A become~~
93 ~~effective, wires and cables not encased in armor shall be supported by well-installed insulators~~
94 ~~and shall not touch combustible materials, roof, or ribs; however, this requirement shall not~~
95 ~~apply to ground wires, grounded power conductors, and trailing cables.~~

96 ~~§ 45.1-161.300. Use of track as electrical power conductor.~~

97 ~~A. The Director shall promulgate regulations regarding~~ 3. Regarding ~~the bonding,~~
98 ~~welding, or securing of rails and track switches where track is used to conduct electrical power.;~~

99 ~~B. Until final regulations promulgated by the Director pursuant to subsection A become~~
100 ~~effective, the following standards shall apply where track is used as a power conductor:~~

101 ~~1. Both rails of main-line tracks shall be welded or bonded at every joint, and cross~~
102 ~~bonds shall be installed at intervals of not more than 200 feet. If the rails are paralleled with a~~
103 ~~feeder circuit of like polarity, such paralleled feeder shall be bonded to the track rails at intervals~~
104 ~~of not more than 1,000 feet.~~

105 ~~2. At least one rail on secondary track-haulage roads shall be welded or bonded at every~~
106 ~~joint, and cross bonds shall be installed at intervals of not more than 200 feet.~~

107 ~~3. Track switches on entries shall be well bonded.~~

108 ~~4. Rails shall not be used as power conductors in rooms.~~

109 ~~§ 45.1-161.301. Disconnecting switches.~~

110 ~~A. The Director shall promulgate regulations requiring~~ 4. Requiring ~~the installation of~~
111 ~~disconnecting switches underground in all main power circuits at appropriate locations.;~~

112 ~~B. Until the final regulations promulgated by the Director pursuant to subsection A~~
113 ~~become effective, disconnecting switches shall be installed underground (i) in all main power~~
114 ~~circuits within approximately 500 feet of the bottoms of shafts and boreholes, and (ii) at other~~
115 ~~places where main power circuits enter the mine.~~

116 ~~§ 45.1-161.302. Respiratory equipment and ear protectors.~~

117 ~~A. The Director shall promulgate regulations requiring~~ 5. Requiring respiratory
118 equipment and hearing protection, including by requiring that (i) ~~miners~~ each miner exposed
119 for short periods to ~~hazards~~ a hazard from inhalation of gas, dust, or fumes ~~to~~ wear approved
120 respiratory equipment and (ii) ~~operators to~~ each operator supply ~~ear protectors~~ hearing
121 protection to miners upon request; and

122 ~~B. Until the final regulations promulgated by the Director pursuant to subsection A~~
123 ~~become effective, (i) miners exposed for short periods to hazards from inhaling gas, dust, or~~
124 ~~fumes shall wear approved respiratory equipment and (ii) ear protectors shall be supplied by~~
125 ~~the operator to all miners upon request.~~

126 ~~§ 45.1-161.303. Fire precautions in transportation of mining equipment.~~

127 ~~A. The Director shall promulgate regulations requiring~~ 6. Requiring that fire precautions
128 be taken when mining equipment is transported underground in proximity to energized trolley
129 wires or trolley feeder wires.

130 ~~B. Until the final regulations promulgated by the Director pursuant to subsection A~~
131 ~~become effective, the following standards shall apply to the transportation of mining equipment~~
132 ~~underground:~~

133 ~~1. Prior to moving or transporting any unit of off-track mining equipment in areas of the~~
134 ~~active workings where energized trolley wires or trolley feeder wires are present: (i) the unit of~~
135 ~~equipment shall be examined by a certified person to ensure that accumulations of oil, grease,~~
136 ~~and other combustible materials have been removed from such unit of equipment; and (ii) a~~
137 ~~qualified person shall examine the trolley wires, trolley feeder wires, and the associated~~
138 ~~automatic circuit interrupting devices to ensure that proper short circuit protection exists.~~

139 ~~2. A record shall be kept of the examinations and shall be made available, upon request,~~
140 ~~to the Director or his authorized representative.~~

141 ~~3. Off-track mining equipment shall be moved or transported in areas of the active~~
142 ~~workings where energized trolley wires or trolley feeder wires are present only under the direct~~
143 ~~supervision of a certified person who shall be physically present at all times during moving or~~
144 ~~transporting such equipment.~~

145 ~~4. The frames of off-track mining equipment being moved or transported, in accordance~~
146 ~~with this subsection, shall be covered on the top and on the trolley wire side with fire-resistant~~
147 ~~material, where appropriate as determined by the Director.~~

148 ~~5. Electrical contact shall be maintained between the mine track and the frames of off-~~
149 ~~track mining equipment being moved in-track and trolley entries, except that rubber-tired~~
150 ~~equipment need not be grounded to a transporting vehicle if no metal part of such rubber-tired~~
151 ~~equipment can come into contact with the transporting vehicle.~~

152 ~~6. To avoid accidental contact with power lines, the equipment being transported or~~
153 ~~trammed shall be insulated or assemblage removed, if necessary, if the clearance to the power~~
154 ~~lines is six inches or less.~~

155 ~~7. Sufficient prior notice shall be given the Department so that a mine inspector may~~
156 ~~travel the route of the move before the actual move is made, if he deems it necessary.~~

157 ~~8. A minimum vertical clearance of twelve inches shall be maintained between the~~
158 ~~farthest projection of the unit of equipment which is being moved and the energized trolley~~
159 ~~wires or trolley feeder wires at all times during the movement or transportation of such~~
160 ~~equipment. If the height of the seam of minerals does not permit twelve inches of vertical~~
161 ~~clearance to be so maintained, the following additional precautions shall be taken:~~

162 ~~a. Electric power shall be supplied to the trolley wires or trolley feeder wires only from~~
163 ~~outby the unit of equipment being moved or transported. Where direct current electric power is~~
164 ~~used and such electric power can be supplied only from inby the equipment being moved or~~
165 ~~transported, power may be supplied from inby such equipment if a miner with the means to cut~~

166 ~~off the power, and in direct communication with persons actually engaged in the moving or~~
167 ~~transporting operation, is stationed outby the equipment being moved;~~

168 ~~b. The settings of automatic circuit interrupting devices used to provide short circuit~~
169 ~~protection for the trolley circuit shall be reduced to not more than one-half of the maximum~~
170 ~~current that could flow if the equipment being moved or transported were to come into contact~~
171 ~~with the trolley wire or trolley feeder wire;~~

172 ~~e. At all times the unit of equipment is being moved or transported, a miner shall be~~
173 ~~stationed at the first automatic circuit breaker outby the equipment being moved. Such miner~~
174 ~~shall be in direct communication with persons actually engaged in the moving or transporting~~
175 ~~operation, and capable of communicating with the authorized person on the surface required to~~
176 ~~be on duty;~~

177 ~~d. Where trolley phones are utilized to satisfy the requirements of paragraph c of this~~
178 ~~subdivision, telephones or other equivalent two-way communication devices that can readily~~
179 ~~be connected with the mine communication system shall be carried by the miner stationed at~~
180 ~~the first automatic circuit breaker outby the equipment being moved and by a miner actually~~
181 ~~engaged in the moving or transporting operation; and~~

182 ~~e. No person shall be permitted to be inby the unit of equipment being moved or~~
183 ~~transported, in the ventilating current of air that is passing over such equipment, except those~~
184 ~~persons directly engaged in moving such equipment.~~

185 ~~The provisions of subdivisions 1 through 8 shall not apply to units of mining equipment~~
186 ~~that are transported in mine cars, provided that no part of the equipment extends above or over~~
187 ~~the sides of the mine car.~~

188 **Drafting note: Six sections, existing §§ 45.1-161.298 through 45.1-161.303, are**
189 **relocated here from the end of the chapter because they relate to the adoption of**
190 **regulations by the Director. Part of the first sentence of existing § 45.1-161.298 is retained**
191 **as part of this section, a general section created to logically organize the provisions**
192 **relating to the adoption of regulations. Each of the five sections that follow is retained as**
193 **a numbered subdivision of this section. Obsolete provisions for certain temporary**

194 regulations relating to the transportation of miners, the support of certain bare wires by
195 insulators, the use of track as a power conductor, the wearing of respiratory equipment
196 and the provision of ear protectors, and the transportation of mining equipment
197 underground are removed. The term "grounded power wire" in subdivision A 2 is
198 changed to "grounded power conductor" for consistency. The outdated term "ear
199 protectors" in subdivision A 5 is replaced by the current term "hearing protection." The
200 term "promulgate regulations" is changed to "adopt regulations" in keeping with recent
201 title revisions because "adopt" is more widely used and includes the promulgation
202 process. Technical changes are made pursuant to § 1-227, which states that throughout
203 the Code any word used in the singular includes the plural and vice versa.

204 § ~~45.1-161.295~~ 45.2-xxx. Standards for regulations.

205 In ~~promulgating rules and~~ adopting regulations pursuant to § ~~45.1-161.294~~ 45.2-xxx or
206 45.2-xxx [existing §§ 45.1-161.298 through 45.1-161.303], the Director shall consider:

207 1. Standards utilized and generally recognized by the underground mineral mining
208 industry;

209 2. Standards established by recognized professional mineral mining organizations and
210 groups;

211 3. The federal mine safety law;

212 4. Research, demonstrations, experiments, and ~~such~~ any other information ~~that is~~
213 available regarding the maintenance of a reasonable degree of safety protection, including the
214 latest available scientific data in the field, the technical and economic feasibility of ~~the~~ such
215 standards, and ~~the~~ experience gained under ~~this~~ the Act and other mine safety laws; and

216 5. ~~Such~~ Any other criteria ~~as shall be necessary for the protection of~~ to ensure the safety
217 and health of miners and other persons or property likely to be affected by any underground
218 mineral ~~mines~~ mine or related ~~operations~~ operation.

219 **Drafting note:** A reference to proposed regulatory section § 45.2-xxx [combining
220 existing §§ 45.1-161.298 through 45.1-161.303] is added to the first sentence. Language is
221 updated for modern usage and technical changes are made pursuant to § 1-227, which

222 states that throughout the Code any word used in the singular includes the plural and vice
223 versa. The term "promulgate regulations" is changed to "adopt regulations" in keeping
224 with recent title revisions because "adopt" is more widely used and includes the
225 promulgation process.

226 § ~~45.1-161.296~~ 45.2-xxx. Mining in proximity to gas and oil wells.

227 A. The Director shall ~~promulgate~~ adopt regulations requiring each licensed ~~operators~~
228 operator to notify, and in appropriate circumstances obtain the consent of, the Director prior to
229 removing minerals in the proximity of any gas or oil well already drilled or in the process of
230 being drilled.

231 B. Any licensed operator who plans to remove any mineral, drive any passage or entry,
232 or extend any workings in any mine ~~closer than~~ within 500 feet ~~to~~ of any gas or oil well already
233 drilled or in the process of being drilled shall file with the Director a notice that mining is taking
234 place or will take place, together with ~~a copy of parts~~ copies of the maps and plans required
235 under § ~~45.1-161.292:37, which show~~ 45.2-xxx showing the mine workings and projected mine
236 workings ~~which that~~ are within 500 feet of the well. The licensed operator shall simultaneously
237 mail copies of such notice, maps, and plans by certified mail, return receipt requested, to the
238 well operator and the Gas and Oil Inspector appointed pursuant to the provisions of § 45.2-xxx
239 [§ 45.1-361.4]. Each such notice shall contain a certification made by the sender that ~~he the~~
240 sender has complied with these requirements.

241 C. ~~Subsequent to the~~ After filing ~~of the~~ such notice, ~~the a~~ licensed operator may proceed
242 with mining operations in accordance with the maps and plans submitted; however, without the
243 prior approval of the Director, ~~he the operator~~ shall not remove any material, drive any entry,
244 or extend any workings in any mine ~~closer than~~ within 200 feet ~~to~~ of any gas or oil well already
245 drilled or in the process of being drilled. Each licensed operator who files such a petition shall
246 mail copies of the petition, maps, and plans by certified mail, return receipt requested, to the
247 well operator and the Gas and Oil Inspector no later than the day of filing. The Gas and Oil
248 Inspector and the well operator shall have standing to object to any petition filed under this

249 section. ~~Such objections~~ Any such objection shall be filed within ~~ten~~ 10 days following the date
250 such petition is filed.

251 **Drafting note: Language is updated for modern usage and technical changes are**
252 **made pursuant to § 1-227, which states that throughout the Code any word used in the**
253 **singular includes the plural and vice versa. A requirement in subsection B for copies of**
254 **"parts of" certain maps is clarified to require only copies of such maps. A cross-reference**
255 **to the appointment of the Gas and Oil Inspector is added, and the term "promulgate**
256 **regulations" is changed to "adopt regulations" in keeping with recent title revisions**
257 **because "adopt" is more widely used and includes the promulgation process.**

258 § ~~45.1-161.297~~ 45.2-xxx. Flame safety lamps.

259 ~~Flame~~ No flame safety ~~lamps~~ lamp shall ~~not~~ be used for detecting methane. The Director
260 shall determine whether flame safety lamps shall constitute approved devices for detecting
261 oxygen deficiency. If flame safety lamps are approved for such purpose, the Director shall
262 establish standards for their use and maintenance.

263 **Drafting note: Language is updated for modern usage and a technical change is**
264 **made pursuant to § 1-227, which states that throughout the Code any word used in the**
265 **singular includes the plural and vice versa.**

266 #