**West Virginia Reciprocity Study Guide**

**Underground Mine Foreman**

1. What refresher first-aid training is required of each coal mine employee in West Virginia?
2. Not less than 5 hours within each 24 months of employment
3. 40 hours per year
4. 8 hours per month
5. West Virginia coal miners are not required to have first-aid training
6. What scale is required on mine maps in West Virginia?
7. Not less than 100 feet to the inch, nor more than 500 feet to the inch
8. 100 feet to 400 feet per inch
9. Not more than 1,000 feet per inch
10. Not more than 2,500 feet per inch
11. How often must state mine inspectors conduct complete inspections of every underground coal mine in West Virginia?
12. At least once annually
13. At least twice annually
14. At least 3 times annually
15. At least 4 times annually
16. What shall be the minimum length of a new blasting cable used underground?
17. 25 feet
18. 50 feet
19. 75 feet
20. 125 feet
21. At what maximum interval shall shelter holes be developed in track haulage entries, except when variances are granted?
22. 100 feet
23. 200 feet
24. 300 feet
25. 400 feet
26. Who has the primary responsibility to prevent injuries and deaths resulting from working under unsupported roof?
27. The section foreman
28. The representative of the miners
29. The shift foreman
30. The operator
31. Prior to continuing mining operations, what minimum quantity of air is required to be delivered to the intake end of a pillar line when its bleeder return has been closed as a result of roof falls or water during pillar recovery operations?
32. 3,000 CFM
33. 6,000 CFM
34. 9,000 CFM
35. 20,000 CFM
36. What is required to protect all 120VAC 15 - 20 AMP circuits used to power portable hand tools used in wet locations at preparation plants, at the surface areas of underground mines, and at shop areas?
37. Check out switches
38. Yield current reducers
39. Ground fault circuit interrupting devices (GFCI)
40. Spring loaded switches
41. What fire-fighting equipment is required to be shown on a map of the mine which must be kept available at all times at the mine office?
42. The location of the pipelines, valves, and fire taps
43. Fire hydrants
44. The closest fire departments
45. None
46. Who is permitted to make the required daily examination of all main fans and machinery connected therewith?
47. A certified electrician or a competent person
48. The mine manager
49. The dispatcher
50. The top person
51. What length of time is an individual miner given to notify the operator in writing that he has obtained any additional mining certification (shot firer, belt examiner, mine foreman ...) ?
52. 1 month
53. 2 months
54. 3 months
55. 4 days
56. How must all manually operated valves and levers on equipment of the same manufacturer and model activate and operate?
57. In opposite directions
58. In the same direction
59. Randomly
60. Intermittently
61. What must be used to tow disabled underground rubber-tired mining equipment in all areas of the mine outby working sections?
62. A tow truck
63. A diesel-powered tractor
64. A battery motor
65. A solid triangular tow bar
66. How many years of practical underground mining experience is required to qualify for an assistant mine foreman-fireboss certificate?
67. 1
68. 2
69. 3
70. 5
71. Who is permitted to conduct the required daily inspection of hoisting machinery at shaft mines?
72. The shift foreman
73. The department of weights and measures
74. A certified electrician
75. The dispatcher
76. At what intervals must stop and start controls be installed on belt conveyors that do not transport miners?
77. Not to exceed 1,000 feet
78. Every 200 feet
79. Every 300 feet
80. Every 2,000 feet
81. When may shelter holes be located on the trolley and feeder wire side?
82. When the trolley wire and feeder wire are guarded in a manner approved by the director
83. Sometimes
84. Never
85. Occasionally
86. Who must directly supervise the handling of a misfired shot?
87. An electrician
88. An apprentice electrician
89. The maintenance supervisor
90. The mine foreman or a certified person designated by him
91. What safety device is required for methane detectors on each working section other than longwall sections and sections mined solely by continuous mining machines with integral roof bolters?
92. A probe or probes for lessening exposure to unsupported roof while making methane examinations
93. A hood
94. A gasket
95. None
96. When may the director require modifications to an existing comprehensive mine safety program?
97. At any time following the investigation of a fatal accident
98. At any time following the investigation of a serious accident
99. During his review of the annual report
100. All of the above
101. What inspection is required of all belt conveyors following the last production shift each week and before holidays and vacation periods?
102. None
103. A pre-shift examination
104. An on-shift examination
105. An examination for frozen rollers and fire hazards
106. What board establishes criteria and standards relative to programs of education, training, and examination of prospective coal miners in West Virginia?
107. The board of miner training, education and certification
108. The board of public health
109. The board of public employees
110. The board of mining engineers
111. How may mine rescue coverage be provided at coal mines in West Virginia?
112. By establishing at least 2 mine rescue teams which are available at all times when miners are underground
113. By entering into an arrangement for mine rescue services which assure that at least 2 mine rescue teams are available at an times when miners are underground
114. Either of the above
115. Mine rescue coverage is not required at West Virginia coal mines
116. What board is charged with the responsibilities of hearing appeals and making determinations on questions of miners' entitlements due to withdrawal orders and appeals from discharge or discrimination, and suspensions of certifications?
117. The board of mines, minerals and energy
118. The coal mine safety and technical review committee
119. The board of appeals
120. The board of labor
121. What civil penalty may any miner in West Virginia be subject to when knowingly violating a health or safety provision of the state code or code of state rules?
122. An IPA (Individual Personal Assessment) of $25.00 to $250.00 for each occurrence
123. None
124. A failure to abate order
125. An imminent danger order
126. Where shall a supply of supplementary roof support materials and the tools and equipment necessary to install the materials (in the event of an accident involving a roof fall or to support the roof if adverse conditions are encountered) be located?
127. At a readily accessible location on each working section
128. Within 4 crosscuts of each working section
129. Either of the above
130. There is no such requirement
131. On track haulage roads, what continuous unobstructed clearance is required to be maintained on the clearance side?
132. 6 inches
133. 12 inches
134. At least 24 inches from the farthest projection of any moving equipment
135. 6 feet
136. When is a dispatcher required?
137. Dispatchers are not required at West Virginia coal mines
138. At the operator's discretion
139. When more than 350 tons of coal are produced on any shift in each 24 hour period
140. Federal law requires dispatchers at every West Virginia coal mine
141. What minimum quantity of air is required in the last open crosscut when crosscuts are being driven 105 feet apart or less?
142. 3,000 CfM
143. 6,000 CfM
144. 9,000 CfM
145. 12.000 CfM
146. What minimum quantity of air is required to be delivered to the intake end of a pillar line?
147. 3,000 CfM
148. 6,000 CfM
149. 9,000 CfM
150. 15.000 CfM
151. In what type of escapeway must a continuous lifeline be installed?
152. Return airway entries designated as escapeways
153. Intake
154. Neutral
155. Secondary
156. What fire-fighting equipment is required to be provided at each permanent electrical installation?
157. 2 portable fire extinguishers
158. 240 pounds of rock dust
159. 240 pounds of sand
160. None of the above
161. When are emergency medical technicians required to be employed in West Virginia coal mines?
162. When the mine employs more than 10 people and more than 8 persons are present on the shift
163. When more than 5 people work at the mine in each 24 hour period
164. EMT's are not required in West Virginia mines
165. Paramedics are required in West Virginia mines - not EMT's
166. At what maximum intervals are mandoors required to be installed in the intake and return stopping lines when the height of the coal is below 48 inches?
167. 300 feet
168. 400 feet
169. 500 feet
170. 600 feet
171. At what intervals must fire hose outlets with valves be installed in waterlines paralleling belt conveyors?
172. Every 300 feet and at each tailpiece
173. Every 500 feet
174. Every 1,000 feet
175. As per stipulations in the approved roof control plan
176. What must be installed in the boom and head lift cylinders of all continuous mining machines and loading machines?
177. Solenoid valves
178. Yield valves
179. Load-locking valves
180. Relief valves
181. When requested by an authorized representative of the director, how long does the mine operator, or agent thereof, have to furnish the required list of all mining certifications of all current employees on the payroll?
182. 5 days
183. 60 days
184. 3 months
185. 6 months
186. What must be done when an undervoltage indicator on a unit of battery powered equipment indicates that 75% of the rated capacity of the unit's batteries has been expended?
187. Undervoltage indicators are not required on battery powered equipment
188. Nothing
189. Tag it out
190. Withdraw the equipment from use except to tram it to the recharging station
191. What board is responsible for promulgating rules in response to coal mining related fatalities?
192. The board of fatalities
193. The board of investigations
194. The board of examiners
195. The board of coal mine health and safety
196. How many years of practical underground mining experience are required to qualify for a belt examiner certification?
197. 2
198. 4
199. 5
200. 6
201. What site specific program is required by law to be developed and submitted by each coal operator or independent contractor to address health and safety concerns regarding the extraction, production, processing, and/or preparation activities conducted by the coal operator or independent contractor?
202. A roof control plan
203. A ventilation plan
204. A comprehensive mine safety program
205. No such requirement exists
206. What types of switches must all underground belt conveyors be equipped with?
207. Slippage and sequence
208. Sensor and remote
209. Solenoid and centrifugal
210. Gravity and mercury
211. How far must a detonator magazine be located from an explosives magazine underground?
212. Not less than 5 feet
213. 10 feet
214. 15 feet
215. 50 feet
216. What must be installed at each main and secondary belt conveyor drive underground?
217. Deluge type water sprays
218. Water sprinklers or heat-activated foam generators
219. Dry chemical sprinkler systems
220. Any of the above
221. What dimensional requirements apply to mandoors installed in intake and return stopping lines?
222. 30 square inches
223. They must be at least 30 inches square or the height of the coal seam if the seam is lower than 30 inches
224. 48 square inches
225. There are no dimensional requirements
226. How must the operating switch be constructed on electric drills or other electrically operated rotating tools intended to be held in the hand?
227. Continuously
228. Out of metal
229. So as to break the circuit when the hand releases the switch
230. So that polarity can be reversed according to hand pressure
231. Out of what material must all run through check curtains be substantially constructed?
232. Conveyor belting material
233. Polypropylene material
234. Translucent material
235. Readily available material
236. When must an employee wear a seat belt while operating a vehicle on the surface areas of an underground mine?
237. When there is danger of overturning
238. When the vehicle is equipped with rollover protection
239. When the vehicle is rated at 5 ton or greater
240. All of the above
241. When must an onshift examination be conducted of all underground construction and rehabilitation work areas while persons are working at such locations?
242. Anytime during the shift
243. Within 3 hours prior to the oncoming shift
244. Between the 3 and 5th hours
245. Onshift examinations are not required in such areas
246. If a person's first class mine foreman certification has been revoked in Virginia, what mining certifications would that person be eligible for in West Virginia?
247. None
248. Any certification except mine foreman
249. Only certifications that do not require statutory examinations
250. West Virginia law does not address this issue
251. What board is responsible for examining and certifying potential coal miners as potential coal mine inspectors in West Virginia?
252. The board of public employees
253. The board of mining engineers
254. The mine inspectors' examining board
255. The board of industrial hygienists
256. Within what length of time must the occurrence of an injury that is not life threatening be reported to the office of miners' health, safety and training?
257. Within 10 working days
258. Within 8 hours
259. Within 1 month
260. Whenever the operator gets around to it
261. What board is charged with the responsibility of formulating appropriate rules and practices to improve health and safety and provide increased protection of miners?
262. The board of formulation
263. The board of rules and practices
264. The board of coal mine health and safety
265. The board of appeals
266. How far apart may crosscuts for air be driven on remote controlled deep cut mining sections?
267. 80 feet
268. 100 feet
269. 105 feet
270. 120 feet
271. Within what maximum distance from the nearest working face must the end of the track be maintained when the transportation of personnel is exclusively by rail?
272. 50 feet
273. 100 feet
274. 500 feet
275. 1,000 feet
276. What minimum quantity of air is required in the last open crosscut when crosscuts are being driven more than 105 feet apart?
277. The same quantity as required when the crosscuts are being driven less than 105 feet apart
278. 3,000 CFM
279. 6,000 CFM
280. 12,000 CFM
281. What minimum clearance must be provided on both sides of all belt conveyors?
282. 6”
283. 12”
284. 24”
285. 36”
286. When are underground miners required to wear metatarsal boots?
287. There is no such requirement
288. When the average seam height exceeds 48 inches
289. Metatarsal boots are optional
290. When required by the mine committee
291. What fire-fighting equipment is required to be provided at each temporary electrical installation?
292. 1 portable fire extinguisher and 240 pounds of rock dust
293. 1 bag of rock dust and 1 fire extinguisher
294. 1 bag of sand and 1 fire extinguisher
295. Any of the above
296. What must be done when the ventilation of a mine is interrupted for more than 15 minutes?
297. All underground employees must be removed from the mine, the power shall be cut off in a timely manner, and no underground employees shall be permitted to return until ventilation is restored and the mine is examined by persons holding a certificate to make preshift examinations.
298. Withdraw from the faces until the order to evacuate is given
299. Keep on mining until methane is detected at 1 % or more
300. Switch over to natural ventilation
301. Which of the following are required on roof bolting machines used in seam heights 48 inches or higher?
302. An atmospheric monitoring system
303. A lifting jack and handle
304. A mechanical means of holding the drill steel during drilling operations
305. An airbag
306. What must be maintained on all self-propelled section equipment to assist equipment operators in making the required preshift inspections of such equipment for safety defects and/or unsafe conditions?
307. A computer
308. A pre-operational equipment check list
309. A dynamometer
310. Infrared goggles
311. Who is required to examine the roadway to be traveled prior to operating section haulage equipment?
312. None
313. The roadway examiner
314. The equipment operator
315. The belt examiner
316. How many open, unsupported adjacent crosscuts are permitted in direct line with one another on remote controlled deep cut mining sections?
317. 10
318. 8
319. All of them
320. No more than 2
321. How often must each coal operator or independent contractor submit to the director a report containing the findings of the required evaluation of the effectiveness of the comprehensive mine safety program in effect at his or her operation?
322. Monthly
323. Annually
324. Weekly
325. Every 5 years
326. How far from the working faces must boxes or magazines of explosives or detonators be kept?
327. 15 feet
328. 25 feet
329. 100 feet and out of the direct line of blasting
330. 50 feet
331. What distance from mine openings, occupied buildings, and public roads must surface blasting magazines be located (unless barricaded)?
332. 100 feet
333. 300 feet
334. 400 feet
335. 1,000 feet
336. Within what distance of a check curtain or fly curtain must mining equipment not be parked?
337. There is no such requirement
338. 25 feet
339. 20 feet
340. 15 feet
341. How many oxygen and acetylene cylinders or tanks are permitted underground at any one time?
342. No more than are necessary to perform the work safely
343. 10
344. 15
345. 20
346. When is a mine foreman - fireboss required to be employed at an underground mine?
347. Where 3 or more persons are employed in a 24 hour period
348. Where *5* or more persons are employed in a 24 hour period
349. Where 2 or more persons are employed in a 24 hour period
350. Always
351. What is medium voltage?
352. Any voltage less than 1,000 volts
353. Any voltage more than 660 volts
354. From 661 to 1,000 volts
355. None of the above
356. What must be done before electrical changes are made to permissible equipment for use in a mine?
357. The manufacturer must be consulted
358. Such changes must be approved by the director
359. Nothing
360. The proposed changes must be reviewed by the department of commerce
361. How long must an apprentice miner work before testing for a certificate of competency and qualification as an experienced coal miner?
362. 1 week
363. 10 days
364. 1 month
365. 6 months with a minimum of 108 shifts
366. What is required prior to opening or reopening any coal mine in West Virginia?
367. A permit of approval from the director
368. A certificate of competency and solvency
369. A prospecting permit
370. Approval from the mine workers' union
371. Within what length of time must the occurrence of a life-threatening injury be reported in writing to the office of miners' health, safety and training?
372. Within 10 working days
373. Within 24 hours
374. Within 24 days
375. Within 10 months
376. How often must authorized representatives of the director review the effectiveness of approved roof control plans in West Virginia?
377. At least every 6 months
378. At least every 6 years
379. Weekly
380. Monthly
381. How far may a working place be advanced in by a projected crosscut on a remote controlled deep cut mining section prior to mining the crosscut through?
382. 10 feet
383. 20 feet
384. 30 feet
385. 50 feet
386. When are persons allowed to be located in by equipment being trammed or transported underground in the ventilating split passing over such equipment (other than ordinary sectional movements)?
387. Never
388. Sometimes
389. When at least 12 inches of clearance can be maintained between the equipment move and the energized trolley wire
390. Occasionally
391. How often must the mine foreman carefully read and countersign all fireboss reports?
392. Each shift
393. Daily
394. Weekly
395. Monthly
396. What minimum quantity of air is required to ventilate all working faces in a working section?
	1. 1,000 CFM
	2. 2,000 CFM
	3. 3,000 CFM
	4. 4,000 CFM
397. When must a preshift examination be made of a belt conveyor and belt conveyor entry?
	1. Whenever an onshift examination has not been made during the preceding shift
	2. Each shift
	3. Daily
	4. Weekly
398. How often is the operator required to conduct searches for smoker's articles?
	1. At frequent intervals
	2. Daily
	3. Weekly
	4. Monthly
399. How often must fire drills and demonstrations of the various types of available fire-fighting equipment be held for employees?
	1. Weekly
	2. Monthly
	3. Annually
	4. At least every 6 months
400. What action must be taken by the mine operator, or the operator's management personnel, when the ventilation fan becomes disabled or inoperative?
	1. None
	2. immediate action to cut off the power and withdraw the men from the face regions or other areas of the mine affected
	3. immediate evacuation of the mine
	4. Start repairs to the fan immediately
401. At what maximum intervals are mandoors required to be installed in the intake and return stopping lines when the height of the coal is above 48 inches?
	1. 300 feet
	2. 400 feet
	3. 500 feet
	4. 600 feet
402. Where shall cutout switches be installed in trolley wires and trolley feeder wires?
403. Near the beginning of all branch lines and at intervals of not more than 2,000 feet
404. Every 1,000 feet
405. Every 1,500 feet
406. Every 2,500 feet
407. At what intervals must fire hose outlets with valves be installed in track haulage entries when two portable water cars are not provided?
408. Every 300 feet and at the end of each track
409. Every 500 feet
410. Every 1,000 feet
411. As per stipulations in the approved roof control plan
412. What maximum distance from a splice in a trolley wire must trolley wire hangers be installed?
413. Within 3 feet
414. Within 6 feet
415. Within 10 feet
416. Within 12 feet
417. What must all track haulage cars be provided with when they are regularly coupled and uncoupled?
418. Load leveling struts
419. floating trucks
420. Automatic couplers
421. Back up sensors
422. What type of track mounted equipment must be provided with a trolley pole swing limiter?
423. All open type
424. All closed type
425. Alternative type
426. Elite type
427. How often must approved methane detectors be calibrated?
428. Daily
429. Weekly
430. Monthly
431. At least every 30 calendar days
432. What is required to be stored within 800 feet of the working face at a specified location on each underground working section at all times when miners are working on such sections?
433. First aid supplies
434. Supplementary roof support materials
435. An escape capsule
436. A 10 ton lifting jack compatible with the seam height or other equivalent lifting device in working condition
437. How many years of practical underground mining experience is required to qualify for a shot firer certification?
438. 1
439. 2
440. 4
441. 6
442. What must be done before any person is permitted to perform any work within the confines of the cargo space of a crusher, feeder, or rotary breaker?
443. Nothing in particular
444. It must be deenergized, locked out, and suitably tagged
445. All combustible material must be removed
446. Remote communications must be established
447. How many years of practical underground mining experience is required to qualify for a mine rescue team member certification?
448. 1
449. 3
450. 5
451. 6
452. What work is permitted to be done while boreholes are being charged in a working place?
453. None
454. Only work in connection with timbering and general safety
455. Roof bolting
456. Machine dusting
457. Which of the following applies to the operating controls of all battery powered mobile equipment?
458. They must be of electro-hydraulic design
459. They must be clearly marked to distinguish the forward and reverse positions
460. They must be welded to the frame
461. They must chime when left on
462. What is low voltage?
463. Up to and including 660 volts
464. 240 volts and below
465. 120 volts and below
466. None of the above
467. What must mechanically operated grinding wheels be equipped with?
468. Safety washers
469. Substantial retaining hoods
470. Goggles (unless eye shields are used)
471. All of the above

100. What is high voltage?

1. More than 1,000 volts
2. More than 550 volts
3. More than 660 volts
4. More than 1,500 volts