

Module 6 Tab Goes Here

Answers for Module 1 - Scenario 1
Placement of Equipment with Inoperative Brakes in Trains

Situation: On April 10, 2004 at 10 AM, a short line railroad freight train receives a proper Class I brake test at XYZ Yard, Muskogee, OK. The train consists of one GP-38 locomotive and 22 covered hopper freight cars. The short line railroad operates on 62 miles of main track between Muskogee, OK and McAlester, OK. The railroad provides service to several grain elevators along its 62 mile route.

The train proceeds south towards McAlester with instructions to pick-up a solid block of six loaded grain cars at Broken Bow Terminal elevator. Broken Bow Terminal elevator is located 25 miles south of Muskogee. The track serving the elevator lay adjacent to the main track and is accessible from both the north and south ends of the track. As the train approaches the elevator, the conductor notes that all six cars are coupled together, with the air laced, standing on the south end of the elevator track, just clear of the south switch. There are no other cars in the track.

The crew is running about two hours behind schedule and have been instructed by the trainmaster to make the move as expeditiously as possible. The crew decided they would simply stop the train on the main track, just clear of the south switch and add the six cars to the rear of the train. The conductor told his engineer he would perform the inspection and required air test in the elevator track to save time.

The conductor lines the south switch and radios his engineer to back-up. After making the joint, the conductor cuts in the air and proceeds to walk to the rear of the six car fill. As soon as he begins to inspect the cars he notices that two of the six cars have obvious defects.

The defects are as follows and are listed from the first car to the last car, (south to north):

- | | |
|----------------|---|
| 1. NAHX 333999 | Air cut-out, brake beams missing on A-end of car. |
| 2. NAHX 232909 | No defects. |
| 4. NAHX 987567 | No defects |
| 5. NAHX 388890 | No defects. |
| 6. NAHX 388905 | Air cut-out due to broken branch pipe tee. |

Task: Can the crew add the above six cars to their train as is? State your reason(s) to support your answer.

Module 1 - Scenario 1A
Computation of Percent Operative Brakes & Tagging

Task: Using the conditions given in Scenario 1, now calculate the number of operative power brakes in the train. Also, list (if any), movement restrictions and/or tagging requirements that must be observed for the train to operate in compliance with federal regulations. Be sure to refer to your Movement of Defective Equipment for Repair job aid.

Module 1 - Scenario 1B
Computation of Percent Operative Brakes

Task: Now assume that the train leaves Muskogee with five cars instead of 22 cars. Calculate the number of operative power brakes in the train.

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Module 2 - Scenarios

Situation 1: A train consisting of 3 locomotives and 50 cars are left standing (unattended) in a siding, outside yard limits.

Task: At a minimum, how many locomotive hand brakes are required to be applied if any?

Situation 2: Two locomotive are left unattended inside yard limits. Both locomotives are coupled together.

Task: How many locomotive hand brakes are required to be applied if any?

Situation 3: A consist of three locomotives are left unattended outside of yard limits and only one of the locomotives is equipped with a hand brake.

Task: How should these locomotives be secured?

Situation 4: A train is required to receive a Class I brake test/Initial Terminal at a yard with no repair facilities and the conductor finds one car out of 50 that fails to set.

Task: What are the options?

Situation 5: Equalizing reservoir leakage is detected on a locomotive enroute.

Task: Explain what type of action is required (if any), on the part of the crew?

Situation 6: A loaded 100 car grain train is left standing unattended in a siding, with a one-percent grade.

Task: How many hand brakes must be set on the train?

Situation 7: Each train crew taking charge of a train must have certain train handling and profile information.

Task: Describe?

Situation 8: A train crew cuts-out a brake on a car enroute.

Task: Describe what action the crew must take.

Situation 9: A railroad operates in temperatures below 10 degrees Fahrenheit.

Task: What actions are required on the part of the operating railroad?

Situation 10: Five Federal Railroad Administration Inspectors arrive on railroad property.

Task: What actions should you take?

Module 3 - Scenarios

Question 1: What type of brake test is required for a train consisting of three locomotives and 50 cars, assembled at a yard and destined for delivery to another railroad located 18 miles from the point of origin?

Question 2: Can a train that previously received a Class I brake test depart without receiving another Class I brake test if more than one bad order is set-out from the train at the initial terminal? (Duplicate with question 8)

Question 3: As a Trainmaster or other supervisor for a short line railroad, do I have to be qualified to supervise other employees engaged in performing brake tests?

Question 4: If I can see the pistons from one side of the train, do I really have to inspect both sides of the train?

Question 5: Do I have to walk to the rear car to verify air pressure before starting the Class I brake test?

Question 6: A roll-by inspection, what's that all about?

Question 7: What type of brake test is required on cars picked-up en route on transfer train movements?

Question 8: What type of training would a conductor need that has worked for a railroad since 1975 in order to be considered qualified to perform a Class I brake test?

Question 9: How often is periodic refresher training required?

Question 10: What is periodic refresher training?

Question 11: How does one go about validating an employees ability to do what they've been trained to do?

Question 12: What is a "QMI" and "QP"?

Note: A QMI or QP can make the determinations necessary for moving a car for repair under §232.15.

Question 13: If two solid blocks of cars are added to a train, one to the head-end and one to the rear-end at a location other than an initial terminal. The two blocks added came from one previous train and remained on air and charged. Is it permissible to do just a set and release on the rear after adding the blocks to the train?

Note: A pre-departure inspection under the requirements of the Freight Car Safety Standards (215.13).

Question 14: What about removing cars from a train, can a crew remove more the one car or solid block of cars from our train without having to do any kind of brake test?

Question 15: Is there any way to legally haul a car with inoperative brakes in a train receiving a Class I brake test on the entire train?

Question 16: Is it possible to haul a car in a train with an air brake cut-out from a location where a Transfer brake test is performed?

Question 17: Is there a limit as to how many cars that can legally be hauled in a train with inoperative air brakes?

Question 18: Can the person doing a brake test and inspection drive along side the train in a truck? Does FRA condone this practice?

Question 19: Is a leakage test required on a transfer train brake test?

Question 20: What about a gauge...is a gauge required on the rear car of a transfer train brake test?

Question 21: What's the maximum distance a cut-of-cars can be hauled without having to receive a brake test?