SCENARIO ONE

A crew is called on duty at 0600 for a Local (LOH99) at Bedlam yard. After building their train, the Local job will work eastward on the Orange sub, proceeding southward at Kinnick to the Sugar subdivision, where they will service customers on the Gainesville Industrial Lead and perform work at Starkville.

1. On the engineer’s previous start, the total trip time was 13 hours and 20 minutes. How much rest was required prior to this start? **11:20**

2. Once the crew receives their paperwork, what documents must be reviewed as part of the job briefing? **70.3, SSI Item 7-A**
   - SSI, Current Timetable, Subdivision G.O.’s, System G.O.’s

The locomotive consist the crew will use is located inside the Locomotive Servicing Facility. After job briefing with the Roundhouse Supervisor, the crew boards the lead locomotive.

3. The 2 unit locomotive consist is shutdown and blue flagged. Can the crew start the locomotives while they are blue flagged? **5.13**
   - No, Unless directed by individual who placed the blue flag or employee in charge

After the blue flags are removed and performing any required air brake tests and inspections, the crew is ready to depart.

4. The conductor is on the leading end of the rear locomotive and instructs the engineer to back up 10 cars to clear the spring switch on the roundhouse lead. Do they need to communicate with the Roundhouse Supervisor before moving the locomotives and departing the facility? **5.13**
   - Yes, Blue Flag Protection

The conductor instructs the engineer to stop the movement as they are trailing through the spring switch due to a conflicting movement on the roundhouse lead. The conductor then instructs the engineer to “take it ahead” so the conflicting movement can pass.
2020 TE&Y Rules – Study Guide

5. What is required before the engineer can change direction to clear the roundhouse lead? **8.9.2, 5.13**
   - Talk to the supervisor and line the spring switch

6. Is any communication between the crew and the Bedlam Yardmaster required before they can occupy the east switching lead at Bedlam for their movement towards the bowl tracks? **6.7, Timetable**
   - Yes, it is a remote control zone, Bedlam Yardmaster

7. After departing the roundhouse, the crew heads east. After stopping, the conductor will be using hand signals while protecting the shoving movement (light power) westward towards the bowl lead. Is a radio job briefing required prior to initiating the movement? **6.5**
   - No, after a clear understanding that hand signals will control the movement.

8. The Local crew will need to switch out their cars from bowl track 4. Is any protection required before fouling bowl track 4 during humping operations? **7.13**
   - Yes, protection must be provided against cars released from the the hump.

9. The crew stops the movement on the switching lead to line the switch to bowl track 4. What is required before operating the switch? **8.2, 82.3**
   - Make sure it is not tagged or spiked

10. While coupling bowl track 4, the conductor discovers a misaligned drawbar. Will the conductor need to establish “Red Zone Protection” to adjust the drawbar? **81.5.4**
    - Yes

11. What other requirements, if any, need to be met before making the coupler adjustment to the car? **81.2.1, 81.13.1**
    - 100’ separation and hand brakes tied


12. After switching their cars, the crew pulls down for an air test. What air tests and inspections, if any, will be required before departing Bedlam and proceeding to Starkville and the Industrial Lead to complete their work? 30.3.1, 1.33
Class 1 Air Test

The crew discovers a defective car located 3 from the head end during the air test. The Yardmaster instructs the crew to set the car to the lead pocket where a yard job will pick it up after they depart.

13. After completing a job briefing regarding the switching moves to be made, the conductor requests “Red Zone Protection” through a face-to-face job briefing with the engineer. What action is required by the engineer before the conductor can foul the track? 81.5.4
   Fully apply engine brakes and train brakes as needed, center the reverser, and confirm over the radio

14. The conductor heads back to make the cut on the train. Before cutting away from the rear portion, what securement procedure should the crew use in the departure yard? 32.1.1, 32.1.3
   Minimum of 3 handbrakes. Primary Procedure

15. The defective car that the crew will be setting out is a loaded centerbeam flat car that is not equipped with horizontal handholds or two vertical handholds spaced shoulder width apart. After clearing “Red Zone Protection” and cutting away, can the conductor ride the rear platform of the centerbeam flat car while pulling out of the track? 81.7
   Yes, Pulling Out

16. The conductor stops the pulling movement after clearing the switch for the lead pocket. Can the conductor ride the side of the loaded centerbeam flat while protecting the shoving movement into the lead pocket track? 81.7
   No

The conductor stops the shoving movement short of a red flag protecting MOW equipment in the lead pocket track. The conductor notices that the east end of the car they will set out will be between the clearance mark and the fouling point of the switch for the track and calls the Yardmaster for instructions.
17. The Yardmaster tells the conductor to leave the car where it is located, as long as it physically clears the lead, because there is a yard job that will pick up the car once the Local departs. How should the conductor respond? 1.4.1, 7.1, 81.8.1

**Good Faith Challenge**

18. What rules are covered by Good Faith Challenge? 1.4.1

- Shoving Movements, Leaving equipment out to foul, or handling of hand operated switch or fixed derail

19. The Yardmaster instructs the crew to place the centerbeam flat car in track 3, but not to couple to the cut of cars in the track as they will be pulled from the west end later. What securement procedure should the crew use when leaving the single car in track 3?? 32.1.4, 32.1.1

- Apply hand brake, move car sufficient distance to ensure the brakes work, slowly bunch or stretch, observe and verify for one minute the car doesn't move, if brake system is charged set 20-psi reduction, cut away and retighten hand brake

20. After setting out the defective car and recoupling the train, what air tests, if any, will be required? 30.7.1

Class III

21. The crew notifies the Yardmaster that they are ready to depart. What authority will they need to occupy the main track at the east end of Bedlam Yard and proceed eastward? 6.13, 6.2

- Receive Track Warrant, Announce for Track Breach, Enter at Restricted Speed.

22. The conductor lines the hand throw switch at MP 176.8 for movement to the main track, waits 5 minutes as required by Rule 9.17 and then instructs the engineer to pull eastward. After the movement clears the switch, the conductor stops the movement and restores the main track switch. (There is no leaving signal governing movement to the main track)

23. What entries, if any, are required on the Conductor Report Form regarding use of the main track switch? SSI Item 10K

None, Within Yard Limits
24. Once the conductor is back on the head end, the Local departs eastward. At what speed must the train operate to the signal at MP 176.0? **6.27, 9.10**
   Restricted Speed

25. The crew observes the signal at MP 176.0 displaying a green aspect and the track to the signal is clear. At what speed may the crew operate to the signal? **6.27, 9.10**
   Restricted Speed until the leading wheels pass the signal

26. Using Track Warrant #51-50, how far may the Local proceed? **14.2, 14.3**
   East siding switch at Redriver

27. The crew departs Yard Limits and enters the limits of Track Warrant #51-50. What entry must be made in the Conductor Report Form at or about MP 170.0? **1.47**
   Every 5 miles must report, the mile post, time, speed of train, "X" to indicate communication between crew members

28. As the Local passes the detector at MP 167.7, it transmits a “hot wheel” defect message along with a defect tone. What action, if any, is required? **SSI Item 13, 13.1, 13.2.1**
   Immediately begin to reduce speed using good train handling. Stop the train at once it has cleared the detector and notify the dispatcher

29. In regards to the previous question, what is required before the Local continues movement eastward and operates over the bridge at MP 164.2? **SSI Item 13, 13.1, 13.8.2**
   Must not move over it until the car/cars are inspected

30. The engineer stops the train prior to reaching the bridge at MP 164.2. The conductor detains on the south side and asks the engineer to pull the train up to the car indicated by the detector defect message. Is this allowed or must the train remain stopped until inspection is complete? **SSI Item 13, 13.1**
   Yes, Speed not to exceed 10mph
31. While inspecting the south side of the train, the conductor finds an applied hand brake on the car indicated by axle count from the detector and releases it. What action is required after releasing the hand brake? **SSI Item 13, 13.1**
   Inspect the hot journal, move the car one car length and verify the wheels move freely

32. The conductor wants to shove the train back instead of walking back to the head end. Is this move permissible, and if so, how could it be performed? **6.6**
   Get permission from dispatcher, as long as the train doesn’t leave the authority, does not exceed train length, does not foul private or public crossing, or get into a Form B

33. Once the conductor is back on the head end, the Local departs eastward. How should the crew proceed? **Timetable**
   Maximum Authorized Speed

34. Approaching Red River, what action is required after the Local passes the “Switch Control” sign in advance of the west end of Red River siding? **8.19.1**
   Dial 1307477 on Channel 27-27

35. After complying with any required action, the crew does not receive radio confirmation of proper switch alignment. What action is required? **8.19.1, 9.13.1**
   Stop prior to entering the OS, operate box using the push button, if after pushing the button the switch point indicator continues to display a stop and inspect switch; employee must hand line the switch

36. The crew observes the switch point indicator for the siding switch and it indicates the switch is lined for reverse position. Is the Local required to stop before entering the siding track? **8.19.1**
   No, Movement may proceed without stopping, notify dispatcher of malfunction

37. Where should the engineer stop the train in the siding at Red River? **6.8**
   400’ short or clearance marker of the east siding switch at Red River
38. After stopping, is an entry in the Conductor Report Form required after the crew verifies that the main track switch at the west end of Red River siding is restored to normal position? **SSI Item 10K**
   No, it is a radio-controlled switch

39. The crew job briefs and the conductor releases Track Warrant #51-50. The dispatcher then issues Track Warrant #63-28. How must the crew determine the UP 8675 has passed their location? **6.2.1**
   Direct contact with a crew member of the UP 8675 or the dispatcher gives you information on that train.

40. The crew sees a westward train approaching Red River. Which side of the train is the conductor required to detrain and from which side of the train should the inspection be made? **6.29.1, 81.4.1**
   Detrain from field side when possible, cross to opposite side of the tracks.

41. After the UP 8675 passes the east end of Red River siding, the crew verifies that the east switch is lined for the intended route and departs eastward. What information was the conductor required to enter in the Conductor Report Form prior to the Local acting on Track Warrant #63-28? **1.47**
   Box 2 marked TW 63-28, Location, time, and unit number of the train met

42. Operating eastward, the Local passes a Distant Signal Approach in advance of the Interlocking at Kinnick. The next signal, CP W143, is red. What action is required? **9.5, 9.12.2**
   Stop prior to passing the control point and notify the control operator

Seeing no conflicting movement, the conductor calls the Control Operator regarding the Stop indication at CP W143. The Control Operator reports waiting for a Track and Time release from the signal maintainer and that the crew should be getting a light soon.

43. The signal aspect at CP W143 changes to red over red over green. What is the train’s maximum speed through the interlocking? **Timetable 20MPH**
44. What type of main track authority is in effect on the Sugar subdivision between Kinnick and MP 340.2, and what action is required by the crew before passing MP 344.9? **6.13, SSI Item 12**
Yard Limits, employee initiated track breach

45. How must the crew proceed in regard to signal indications between MP 348.2 and MP 340.2?
**6.13**
Restricted Speed unless signal is more favorable than an approach

46. Are there any speed restrictions for Key Train – Crude Oil / High Hazard Flammable trains on the Sugar subdivision? If yes, where? **Timetable**
Yes, MP310.1 and MP274.6, 40mph

47. The Local arrives at the main track switch for the Gainesville Industrial Lead. After lining the main track switch for movement to the lead, and placing the derail in the non-derailing position, can the crew leave the main track switch open to maintain their main track authority while they are servicing customers on the industrial lead? **8.3**
No, they would have to leave a crew member at the switch while performing their work.

48. Could the crew leave the derail on the industrial lead in the non-derailing position while they perform work at the industry tracks? (They will not be switching over the derail) **8.20**
No, Must be in derailing position unless in siding without cars.

The Local crew will set out the head 5 tank cars at the Conway Industry track, and the remaining 10 cars at Chanticleer Industry. There are 10 empty cars and one locomotive at Chanticleer Industry that the crew will need to pick up and take back to Starkville Yard.

49. Arriving at the Conway Industry track, the crew job briefs before cutting away with the head 5 cars and decide the brakeman will remain with, and attend, the detached portion while the conductor makes the set out. What securement method is required before cutting away with the head 5 cars? **32.1, ABTH Glossary “Unattended”**
No brakes required if attended
50. The conductor lines the switch for the industry track. Is the conductor required to place the lock in the hasp of the switch after lining it for the intended route? 8.8
   Yes, Hasp or lock must be secured.

51. Conway Industry track is protected by a gate. What is required before operating through the gate opening? 7.10
   Make sure the gate is completely open. Do not ride car through the gate

52. Can the conductor ride the leading end of the movement through the gate opening? (The conductor will be riding on a tank car) 81.8.3
   Yes, the conductor will not be riding the side of the car

53. Conway Industry track is a spur track. What are the requirements when shoving into Conway Industry? 7.12
   Stop 150' away from the end of the track, apply hand brakes to control the slack,
   crew member to move in advance of the movement when it can be done safely,
   stop movement short of end of track, bumper, chock, etc.

54. After visually determining that all switches and derails are lined for the intended movement, the conductor will use the radio while controlling the shoving movement. Describe a proper job briefing between the conductor and engineer before initiating the movement. 6.5
   Who, How, Distance, and direction of travel.

After properly securing the cars at Conway Industry, the conductor and engineer return with the power to the lead. After the conductor lines the industry switch, the brakeman tells the engineer that hand signs will be used to control the movement back to a coupling.

55. Can the brakeman protect the shoving movement while attending the cut of cars on the lead? 6.5
   Yes, the cut of cars the brakeman is attending are directly related to the movement

56. After coupling the train together, what air tests, if any, will be required before departing Conway Industry and traveling to Chanticleer Industry? 30.7.1
   Class III
Arriving at Chanticleer Industries, the Local crew sets out and properly secures the remaining 10 cars. The crew will then couple their locomotives to the locomotive and cars in the runaround track that are to be taken to Starkville.

57. After lining the switch for the runaround track at Chanticleer Industries, the brakeman climbs on the point of the locomotive consist and instructs the engineer to take it ahead 4 cars to a coupling. Can the brakeman ride the light power directly to a coupling on the locomotive in the track? 81.13
   Yes

58. After making and stretching the coupling, how must the brakeman dismount the locomotive? 81.4.1
   Face the equipment, stop at the bottom step maintaining 4 point contact, perform 180 degree look, retain grip until both feet are firmly on the ground, when practical get off the same side you got on and away from main tracka or close clearances

59. After MU’ing the power and changing ends, what locomotive air brake test(s) will be required? 31.3.1, 31.8.4, 31.8.4.3
   Standing locomotive air brake test and alerter test

60. After completing the required locomotive air brake test, and establishing “Red Zone Protection”, the brakeman releases the hand brakes on the cars. What air brake test(s), if any, are required before departing Chanticleer Industries and taking the cars to Starkville Yard? 1.33, 30.5.1
   Transfer train movement air test

61. What authority is needed to occupy the main track off the Gainesville Industrial Lead? 6.3, 6.13
   Yard Limits

62. Is any action required after lining the main track switch, prior to initiating movement northward to Starkville Yard? 9.17, 6.13
   5 minute wait
63. Where must the crew member operating the switch stand while the movement is traversing the switch? 8.4
   Opposite side of the switch, if not able to be on the opposite side must be 20’ away from the switch.

Approaching Starkville Yard, the Yardmaster calls the Local crew and instructs them to set their cars out in track 3 and secure their power on the north end of track 4 before coming to the yard office for a job briefing.

64. What are the securement requirements for the cars the Local will set out in track 3? 32.1.1, Timetable
   3 Handbrakes at the south end of the yard.

65. What are the securement requirements for the locomotives the crew will leave in track 4?
   32.2.1, 32.2.1.1
   Place throttle in idle, transition handle to off, Gen. Field off, remove and leave reverser, apply all hand brakes on all locomotives, release all air brakes and check for movement. Fully apply independent and apply 20psi automatic brake reduction

66. As the Local pulls through track 3, the brakeman drops off at the south end of the track to be in position to tie the cars down once the movement stops. What precautions should the brakeman observe when getting off the moving equipment? 81.4.2
   Speed must not exceed 4mph, do not step in between rails, on tie ends, immediately before a switch, trailing foot must strike the ground first.

67. After properly securing the equipment, the crew rides in a yard van to the office. The designated speed limit is 5 MPH. Are all occupants in the vehicle required to use seat belts? 74.5
   Yes

The Yardmaster instructs the Local crew to take the yard van out to Athens siding where three locomotives and two blocks of cars were set out yesterday. The Local crew will couple the two blocks together and bring the train back to Starkville Yard. After obtaining any required paperwork for the train, the crew job briefs and departs.
68. While reviewing the train consist and shipping papers, the brakeman asks the conductor if the train will be classified as a “Key Train – Crude Oil” train account the second block of 20 cars consists of petroleum crude oil cars with an Identification Number of UN1267. How should the conductor respond? **HMVII-3**
   Yes, it is a key train

69. What information was the previous crew required to provide to the dispatcher when securing the block of 20 petroleum crude oil cars on the siding track at Athens? **SSI Item 10L**
   Number of handbrakes applied, tonnage and length, grade and curvature of track, weather conditions, type of securement used.

70. Arriving at Athens, the crew observes the three locomotives at the north end of the siding coupled to the first block of 5 covered grain hoppers. All three locomotives are shut down. When can the engineer release the hand brakes on the locomotives? **31.1**
   When it is known the air system is fully charged and working

   **After completing any required locomotive inspections and air tests, the crew is ready to begin coupling the train together. After establishing “Red Zone Protection”, the brakeman cuts in the air, releases the hand brakes, and proceeds to the second cut of tank cars.**

71. The two cuts of cars are separated by a road crossing at grade not equipped with automatic warning devices. Once “Red Zone Protection” is released, what action is required by the brakeman while shoving across the crossing and coupling the train together? **6.32.1**
   Must be on the ground at the crossing to warn traffic until the crossing is occupied

72. After coupling the train at the crossing, what air test(s) and inspections, if any, are required to operate the train from Athens siding to Starkville Yard? **1.33, 30.5.1, HMIII-1**
   Transfer Train, Safety Inspection

73. While installing the EOT device at the rear of the train, the conductor notices that the glad hand on the EOT hose is damaged and they will not be able to cut in the air to the device. Can the train be operated from Athens to Starkville without an operable EOT? **32.9.1, HMVII-3**
   Yes, the distance is less than 20 miles
74. The conductor will use a hand held gauge to complete the required air brake test. Does the accuracy of the gauge need to be verified, and if so, how is this accomplished? 30.2.6.1
Yes, using the brake pipe on the lead locomotive. Gauge must be within 3 p.s.i.
Once every 92 days.

75. After completing any required air brake tests and inspections, the crew notifies the dispatcher they are ready to depart northward to Starkville. What main track authority is required to occupy the main track at Athens? 6.3, 14.1
Track Warrant, Main track authority

76. After receiving any needed main track authority, the leaving signal at the north end of Athens siding does not clear and continues to display a STOP indication. What is required before the train can initiate movement and pass this signal? 9.12.2
Authority must be obtained from the control operator.

77. The Local crew properly complies with the Stop indication at North Athens (CP W329) and is now proceeding northward at Restricted Speed. When can they resume maximum authorized speed? 9.11, 9.3, 6.31, Timetable
Leading wheels passes the next signal

78. After passing a Clear signal, what is the maximum authorized speed the Local could operate, without an armed and operable EOT device, between Athens and Starkville? 6.31, HMVII-3, Timetable
50mph

Arriving back at Starkville, the Yardmaster instructs the crew to secure the train in track 5. A van will transport the crew back to Bedlam where they will tie up for the day.
**SCENARIO TWO**

A crew is called for a through freight train, the ILXMD 15, on duty at 0600 at Iowa City on the Rose subdivision. The crew will operate the train southward on the Rose subdivision, stopping to double the train with a second train (IDITI 14) previously secured at Evanston, then continue onto the Fiesta subdivision southward to Corvallis. When the train arrives at Corvallis, the crew will complete a set-out.

79. The conductor obtains the paperwork for the train and is reviewing it when the engineer arrives in the crew room. They complete a job briefing and determine the maximum speed of the train and train totals are? **6.31, 30.9.1**

70mph, 111 Loads, 0 Mtys, 5474 tons, 6744’

80. What are the current totals for Equivalent Powered Axles (EPA), Equivalent Dynamic Brake Axles (EDBA), and TPA of the train? **SSI Item 4, 31.8.7**

EPA 36.3, EDBA 29.4, TPA 151

81. Does the train exceed the maximum TPA for the Rose subdivision? **Paperwork, 31.8.7**

No

82. What is the minimum EPA necessary to operate the train on the Rose subdivision, and will the engineer need to isolate/shut down any locomotives prior to departing Iowa City? **31.8.7**

EPA 24.2. Engineer will need to isolate/shut down 1 locomotive.

83. What are the limits on the Rose subdivision where Automatic Cab Signal (ACS) system is in effect, and where is this information located? **Timetable**

CPG433 and CPG354, timetable SI-01 Rose Subdivision
84. The departure test form on the lead locomotive indicates that a successful departure test was performed at the initial terminal 2 days ago. The cab signals have remained cut-in and powered up since the train departed the initial terminal. Is a new ACS departure test required before departing Iowa City? **13.1.5, PB-24116**
   No

85. Where are the locations of the ACS Test loops for the Rose subdivision listed? **Timetable**
   Timetable on the Subdivision Page

86. Is Positive Train Control (PTC) in effect on the Rose subdivision and where is this information listed? **18.1, Timetable**
   Yes, Timetable SSI-01, between, CPG433 - CPW143

87. After the crew change is complete, the engineer sets up the locomotive consist for the route and logs into the PTC system. What items must be reviewed, and corrected if needed, during initialization of the PTC system? **18.2, 18.6**
   Consist data, Track Bulletins, Restrictions and Authorities

88. After initializing the PTC system, is any action required by the engineer regarding the ACS system? **Timetable**
   Cut out the ACS

89. The crew change location at Iowa City is at MP 432.5, just south of CP G433. The inbound engineer indicated the train passed a Clear signal at CP G433. At what speed must the train be operated to the next governing signal? **6.27, 9.9**
   Restricted Speed

90. Operating southward on MT 2, after passing an Advance Approach indication, the crew observes their next signal at MP 391.3 displaying an Approach indication. What action is required after passing the Signal? **1.47, 1.47.1, 9.2.6**
   Restricted Speed until leading wheels pass next signal and prepare to stop at next signal. Establish CRZ
91. The next signal at CP G390 East Lansing is displaying a STOP indication. Where should the engineer stop the train? 6.8, 9.5, 9.12.1
   400' from the signal train length permitting

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Seeing no conflicting movement, the conductor contacts the dispatcher regarding the Stop indication at CP G390. The dispatcher reports that they will be waiting for two northward trains before they can depart. The dispatcher also notifies the crew that a van has been called to assist with the pick-up at Evanston.

92. While stopped, the engineer would like to make a cell phone call. Is this allowed, and are there any required actions before the call can be completed? 2.21
   Yes, job briefing, and all crew members agree it is safe to do so.

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93. After the second northward train passes, the crew observes a Diverging Clear indication at CP G390. What is the maximum authorized speed through the turnout? 6.31, Timetable
   50 mph per Subdivision G.O.

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Operating southward, the engineer stops the train at the south end of Evanston siding, CP G382, near the assist van and the conductor detrains. The engineer then pulls the train southward to clear the control point. A few minutes later the dispatcher calls on the radio and advises the crew that the switch at CP G382 does not show lined and locked for movement to the siding and that they will be required to hand operate the switch for their movement.

94. What must be included in the job briefing before the dispatcher can authorize the movement and give the crew permission to place the dual control switch in hand operation? 9.13, 9.13.2
   The control point, route, and switched that must be operated

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95. After receiving proper authority into the control point and permission to operate the dual control switch by hand, the conductor proceeds to the switch. What action is required after the conductor takes the power off the switch if it is already lined for movement to the siding track? 9.13.1
   Operate the hand throw lever until the switch point are seen to move when the lever is operated.
After complying with any required action regarding the switch, the conductor verifies the switch is lined for the intended route and that the track is clear to the lead locomotive of the train tied down on the siding. The conductor will ride the rear car which is an intermodal well car equipped with one vertical handhold while protecting the shoving movement.

96. Can the conductor sit on the outer edge of the car, facing the direction of movement, with one foot on the grab iron and the other (inside) foot on the platform while riding the car? **81.7**
   Yes, provided the conductor keeps one hand on vertical grab iron and remains seated.

97. What PTC action is required before the crew begins the shoving movement to complete the pickup? **18.9**
   PTC should be put in restricted mode.

98. Can the conductor ride the car to a coupling? **81.13**
   No.

99. The conductor stops the movement short of a coupling to remove the EOT device. In addition to establishing “Red Zone Protection”, what is the minimum separation needed between the rear car of the train and the equipment on the siding before the conductor can go between the equipment to remove the EOT? **81.2.2, 81.5.4**
   100'

After removing the EOT, and clearing the “Red Zone”, the conductor completes the shoving movement to a coupling. After verifying set and centered condition, the engineer rides in the van to the lead consist of the IDITI 14 to set up the lead unit (UP 7229) as the controlling unit of the cut-in DP consist and then proceeds to the rear of the train to set up the UP 6914 as a rear DP locomotive.

100. Is the engineer required to announce “Red Zone” before fouling the equipment on the siding to set up the trailing locomotive consists for DP service? **81.5.4**
   No.

101. While the engineer sets up the locomotive consists for DP service, the conductor returns the dual control switch at CP G382 to power. Is the crew required to job brief and notify the dispatcher when power is restored to the switch? **9.13.1, SSI Item 10K**
   Yes.
102. After setting up the remote consists, the engineer returns to the lead unit to complete the initial DP linking process. The conductor is at the coupling to cut in the air and release hand brakes on the secured portion. After cutting in the air, what locomotive air tests will be required to complete the linking process? \textit{33.1.2, 33.7.3, 33.7.4} \\
Brake Pipe Test, and leakage test

103. After completion of the required train air brake tests and inspections, the conductor releases the hand brakes on the rear portion. How many hand brakes must the conductor inspect after releasing the last applied hand brake and will the conductor be required to establish Track Breach Protection if work is performed between the siding and the main track? \textit{32.1.6, Item 12} \\
3 brakes further. No track breach is needed if employees own equipment prevents entry into the track.

104. The crew job briefs regarding the train information after the pick-up and determine the maximum speed of the train and train totals departing Evanston are? \textit{6.31, 30.9.1, SSI Item 2F} \\
70mph, 237 Loads, 0 Mtys, 12283 tons 14294' 

105. What are the totals for Equivalent Powered Axles (EPA), Equivalent Dynamic Brake Axles (EDBA), and TPA of the train after completing the pick-up? \textit{SSI Item 4, 31.8.7} \\
EPA 72.5, 170 TPA, 57.5 EDBA

106. Does the train exceed the maximum TPA or coupler limit for the Fiesta subdivision? \textit{Paperwork, 31.8.7} \\
No

107. What is the minimum EPA necessary to operate the train on the Fiesta subdivision, and will the engineer need to isolate/shut down any locomotives prior to departing Evanston? \textit{31.8.7} \\
Total EPA needed is 59. Shutdown/Isolate 1 locomotive

108. Will the crew be required to verify the position of the cut-in helper, any car placement restrictions and update the PTC consist data before departing? \textit{18.6, SSI Item 5-B, SSI Item 5-C} \\
Yes, all data needs to be updated
109. Will the crew need to reposition any car(s) in order to comply with train make-up restrictions contained in SSI Items 5-B or 5-C? **SSI Item 5-B, SSI Item 5-C**
   Yes, they will need to reposition a car.

110. After completing any required actions regarding train make-up restrictions, the crew departs southward. What is the maximum speed while operating on the siding at Evanston? **6.31, Timetable**
   40mph

111. Approaching the north end of Lincoln siding, CP G367, the crew has initiated a “Cab Red Zone” and is preparing to stop before passing CP G366 at the south end of the siding. Why? **1.47.1, 9.23.1**
   Block Signal Suspension - Call employee in charge

112. What actions, if any, are required by the crew before passing CP G366? **SSI Item 10-B, 9.23.1, 18.7**
   Contact employee in charge of signal suspension, perform a soft cut out on PTC

113. What is the maximum speed of the ILXMD 15 when operating between MP 366.2 and MP 354.4? **6.31, 9.23.1**
   49mph

114. Operating southward, how should the crew approach the signal at CP G354? **9.23.1**
   Crew to maintain a CRZ and prepare to stop

115. The crew observes a Clear indication at CP G354. What action is required by the engineer on the ILXMD 15 before passing the signal at CP G354? **SSI Item 10-B, 18.7**
   Be govern by signal indication and reduce to 15mph to cut in PTC
116. As the train passes the detector at MP 350.1, the crew does not receive an exit message. What action, if any, is required? SSI Item 13, 13.8.1, 13.8.2

None

117. After complying with any required action regarding the detector, the train advances onto the Fiesta subdivision at Kinnick. The detector at MP 390.9 announces “Integrity Failure” as the train clears the detector. No defect message or tone was received. What action, if any is required? SSI Item 13, 13.8.1, 13.8.2

Notify Dispatcher and proceed at maximum authorized speed.

118. What is the maximum EDBA (Equivalent Dynamic Brake Axles) allowed on the lead consist of the ILXMD 15 between Eugene and Corvallis? Timetable

27

119. What is the TPDBA (Tons Per Equivalent Dynamic Brake Axle) for the train? SSI Item 4, ABTH Glossary

252 TPDBA

120. What is the maximum speed of the train on the descending grade between Berkeley and Corvallis? Timetable

30mph

121. As the train is approaching Seattle and while passing through a tunnel, the engineer observes a “Comm Loss” on the DP consist at the rear of the train. What action is required? SSI Item 8, 32.9.6

Move a train length to attempt to re-establish comm or sufficient distance to clear obstruction.

122. During the “COMM LOSS”, if the engineer needed to idle the remote consist, what procedure is required? 33.1.3

Make a full service reduction
123. Continuing southward, communication with the rear helper is restored after the train clears the tunnel. What is the maximum speed of the ILXMD 15 at MP 367.7? 6.31, SSI Item 8, Timetable
35mph

124. As the ILXMD 15 passes South Los Angeles, CP M344, the crew hears a northward train call the dispatcher and report that they are in emergency in the siding at Salt Lake City. The dispatcher immediately calls the ILXMD 15 with this information. What action is required by the crew on the ILXMD 15? 6.23, 6.27
Reduce to restricted speed, stop short of any portion of the stopped train fouling the track

125. As the train crests the grade at Berkeley, the engineer makes a reduction of the Automatic Brake and has the train “balanced”. Describe the term “balanced braking”. ABTH Glossary
The use of train brakes and dynamic brake to stabilize, increase, or decrease train speed on a decending grade.

126. If the dynamic brakes failed on the lead unit, could the train continue to operate on the descending grade? 31.5.1
Yes, if able to control the train

127. Approaching Boulder, the train passes over a flange lubricator in a curve and the engineer feels the wheels slip which results in a drop of dynamic forces. The train speed increases and is approaching 5 MPH over their maximum speed. What action is required? SSI Item 8
Stop movement immediately, using an emergency application. Apply handbrakes and do not move until authorized by an MOP

128. The conductor immediately stops the train. What action is now required? SSI Item 8
Apply hand brakes to prevent movement

After complying with any required action(s), the train is ready to depart. A DSLE (Designated Supervisor of Locomotive Engineers) has debriefed the crew regarding the emergency application of the train air brakes.
129. Before departing, the DSLE discusses the use of retainers with the engineer. What are the requirements regarding use of retainers? \(34.5.5\) Must be set in the HP position on entire train. Do not exceed 15mph, freight car brake cylinder pressure is not retained until a brake pipe of at least 10 psi has been made and released.

Arriving at North Corvallis, the train operates onto the siding track for the work event and crew change. The engineer stops the train at the crossovers and the conductor detains to be in position to make the cut on the train. The engineer operates the train southward until the conductor stops the movement and makes a cut on the train ahead of the mid train DP consist. A relief crew is at the crossovers to take over the rear portion of the train.

130. After making a further separation, and establishing “Red Zone Protection”, the conductor installs the EOT device the relief crew brought out to the train. After arming the device, what is required to test the EOT device? \(32.9.2, 32.9.3, 32.9.4\) Move a car ahead of eot and close the angle cock. initiate a EOT emergency from the lead locomotive. verify the EOT goes to zero and the car sets up.

131. What air brake tests and inspections, if any, will be required before the head portion of the train (ILXMD 15) can depart Corvallis? \(30.7.1\) Class III

After taking charge of the rear portion of the train, which will depart Corvallis as the ICOTI 18, the relief crew will need to reconfigure the inbound mid-train and rear DP consists as the new lead and rear DP consists for their outbound train and perform any required air brake tests and inspections before departure.

132. After securing the train, what locomotive air brake tests and inspections are required prior to completing the DP linking process? \(31.3.1, 31.8.2, 31.8.4, 31.8.4.3\) Consist test and Alerter test

133. What locomotive air tests are required to complete the DP linking process? \(33.7.2, 33.7.3, 33.8.1, 33.8.2\) BP Test and Leakage test
134. What air brake tests and inspections, if any, will be required before the train departs Corvallis? Yes

135. Will the crew be required to complete an Air Brake Test Form for the train? Yes
2020 TE&Y Rules Program
Drug and Alcohol

1. If involved in an accident and it is my normal quitting time, can I leave?
   No

2. What happens if I leave, after being told I have a drug or alcohol test, to run an errand while one of my fellow employees is providing their sample with the collector?
   You are subject to permanent dismissal

3. If living in a state that allows medical marijuana, can I use this drug?
   No

4. If I am convicted of a misdemeanor for possession of marijuana, should I report this?
   Yes

5. What is a positive breath alcohol test?
   anything over .02

6. What happens if I take a prescription that was prescribed over a year ago?
   subject to permanent dismissal

7. If I follow the 4 hour “bottle to throttle” rule, will that always work?
   No

8. If a manager tells me he plans to test me for reasonable suspicion, can he complete a manager referral instead if I tell him I need help?
   No
9.  I am currently in a program for a previous positive. Can I self refer to EAP?
    Yes

10. If I complete a coworker report, will my coworker get fired?
    No
2020 STUDY GUIDE

Hazardous Materials and Security Awareness

02/06/20
1. Who is required to have either a printed or UPRR electronic version of the Form 8620?
   All TE&Y

2. What is the most current version of the Emergency Response Guidebook?
   2016

3. During train operations, who is required to carry the most current Emergency Response
   Guidebook (ERG)?
   Conductor

4. A loaded tank car containing a material poisonous/toxic by inhalation, including anhydrous
   ammonia, is a Rail Security-Sensitive material (RSSM)?
   True

5. When is a Positive Hand-Off required?
   Receiving a RSSM Shipment from a shipper at any location. Receiving/Delivering a RSSM
   shipment in Interchange. Delivering a RSSM shipment in a HTUA

6. When a Positive Hand-Off of a RSSM shipment is required, what is necessary for the
   shipment to be considered attended?
   Employee or Rep of the RR and employee or Rep of the shipper/receiver or interchanging RR

7. What items must be documented during a Positive Hand-Off?
   Car initial/number, First and Last name of individual who is attending. Location of transfer, Date/Time of transfer on the work order or appropriate documents
8. What documents are required when accepting or transporting a hazardous material shipment?

9. List the documents that would be considered acceptable shipping papers:

10. A crew has a work order to pull 10 cars of TIH/PIH hazardous material from Bridgman Chemicals. The 4th car in the track is not listed on the work order. What is required?
Leave the first shipment not listed on your work order and all following cars in the cut behind.

11. Before proceeding, what must be done with all copies of Position-in-Train documents after pickups or setouts have been made?
Update the documents

12. A crew will be picking up 10 cars listed as TIH/PIH that are a solid block. What inspections are required?
None

13. Your crew will be picking up a loaded TIH/PIH tank car at a customer’s facility on an Industrial lead. What action is required if the car is missing a placard?
Leave it. Notify the customer, yardmaster, dispatcher, or supervisor. Do not accept shipment until corrections are made.

14. What is the maximum coupling speed when a loaded placarded car is cut off in motion?
4mph
15. The following cars are being switched in a hump yard. Are there any restrictions to switching these cars in a hump yard?

<table>
<thead>
<tr>
<th>Car Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>029 PSPX022152 LT22 129 LIVO NKPN APOISN TB028 ** DANGEROUS **</td>
<td>MFWLI 25 LIVO</td>
</tr>
<tr>
<td>030 PSPX022109 LT22 129 LIVO NKPN APOISN TB028 ** DANGEROUS **</td>
<td>MFWLI 25 LIVO</td>
</tr>
<tr>
<td>031 CPCX105054 LT22 131 LIVO NKPN APOISN TB028 ** DANGEROUS **</td>
<td>MFWLI 25 LIVO</td>
</tr>
</tbody>
</table>

Released in cuts of 2 or less

16. What precautions must be taken when flat switching the loaded tank cars shown below?

Cars must be shoved to rest

17. During humping operations, which cars must be shoved to rest?

1, 6, 7
18. In a switching operation, can the car below be kicked or humped? Please explain your answer.

No, TOFC cars in Section C Item 1

19. Which car(s) may be cut-off in motion while flat switching?

20. Could you couple the engine to the cut of cars shown below while switching?

No
21. While switching at an Industry, could a Local crew couple directly into the cars shown below at either end of the cut?

No, do not kick cars are at each end

22. Will the car placement shown below meet Placement in Train requirements? Explain why or why not.

No, Oxygen car should be moved up
23. Will the car placement shown below meet Placement in Train requirements? Explain why or why not.

Yes, No restrictions

24. Using the Placard Endorsement Conversion Chart and the Placement in Train Chart, are the following placements correct?

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Classification</th>
<th>Toxicity</th>
<th>UN Number</th>
<th>Hazardous Material</th>
<th>Stcc</th>
</tr>
</thead>
<tbody>
<tr>
<td>42 CALX 3014 ET22 EV370 OZOL TOLERAS CA SUNFOL RES</td>
<td>74 FROM HEAD 50-MPH 30-TONS 50-FT 1-F</td>
<td>1.00-BRK 3039-ATONS 3284-AFT</td>
<td>L/TK</td>
<td>RESIDUE: LAST CONTAINED</td>
<td>NA1993</td>
<td>(CONTAINS MINERAL SPIRITS)</td>
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<tr>
<td>43 ARMN 762336 LRP7 MEATS PK950 ORKL OAKLAND CA PACIFI T霍</td>
<td>73 FROM HEAD 70-MPH 90-TONS 59-FT 1-F</td>
<td>1.00-BRK 6032-ATONS 5340-AFT</td>
<td>PT</td>
<td>R70S MAINTAIN 0 DEGREES</td>
<td>PROTECTIVE SERVICE</td>
<td>MAINTAIN -10 DEG</td>
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<tr>
<td>44 PBOX 15245 LTT2 CARS YE EV182 01-702-55 VISTA NV SIERRA CUE</td>
<td>72 FROM HEAD 60-MPH 128-TONS 42-FT 1-F</td>
<td>1.00-BRK 2932-ATONS 3740-AFT</td>
<td>CC</td>
<td>CAR IS LESS THAN 45 FT</td>
<td>L/TC, 89970/ZG</td>
<td>UN1890</td>
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Yes
25. Can the cars shown below be placed next to each other in a train?  

No

26. Will the car placement shown below meet Placement in Train requirements? Explain why or why not.

Yes, buffer
27. Using the Placard Endorsement Conversion Chart and the Placement in Train Chart, are the following placements correct?

<table>
<thead>
<tr>
<th>UTLX 48690</th>
<th>LT19</th>
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<tbody>
<tr>
<td>R50 SPEED</td>
<td>Restricted Car</td>
</tr>
<tr>
<td>1/TC, 142115/LB</td>
<td></td>
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<tr>
<td>*******************</td>
<td>Environmentally Hazardous Substances, Liquid, N.O.S.</td>
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<tr>
<td>*******************</td>
<td>Emergency Contact: (Dimethyl Phthalate)</td>
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<tr>
<td>800-424-9300</td>
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<tr>
<td>UN3082 FU III</td>
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<tr>
<td>RQ (Dimethyl Phthalate)</td>
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<tr>
<td>Hazmat STCC = 4962114</td>
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<tr>
<th>GATX 78040</th>
<th>LT32</th>
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<tr>
<td>R50 SPEED</td>
<td>Restricted Car</td>
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<tr>
<td>1/TC</td>
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<tr>
<td>*******************</td>
<td>Liquefied Petroleum Gas</td>
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<td>DANGEROUS</td>
<td>2.1</td>
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<td>Emergency Contact: (Propane)</td>
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<tr>
<td>800-424-9300</td>
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<td>Hazmat STCC = 4905752</td>
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<th>GATX 78086</th>
<th>LT32</th>
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<td>R50 SPEED</td>
<td>Restricted Car</td>
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<tr>
<td>1/TC</td>
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<td>*******************</td>
<td>Phosgene</td>
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<td>POISON GAS ZONE A</td>
<td>2.3</td>
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<tr>
<td>*******************</td>
<td>Emergency Contact: RQ (Phosgene)</td>
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<tr>
<td>800-424-9300</td>
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<tr>
<td>Poison-Inhalation Hazard</td>
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No

28. After switching cars at an Industry, could a Local crew place the cars (as shown below) on the head end of their train and proceed to their next customer located 6 miles away on the Industrial Lead?

```
SEQ INIT NUMB | L AMD | WST | YSLK | 5PCD | CMDTY | NEXT*SYS.DE5* | GBND-TRAIN | TBLK |
001 TILX601143 | L T12 137 | IND6 | NGH3 | AFOISN | JR001 | 1075416 | LOF53 01 | INDU |
**DANGEROUS** |
**FLAT YARD - DO NOT KICK**
002 GONX065287 | L GSC 133 | IND3 | H2BN | PIPE | JR001 | 1075000 | LOF53 01 | INDU |
003 GATX070673 | E T22 035 | IND3 | KG82 | ** | JR001 | 1075208 | LOF53 01 | INDU |
004 CZMK011126 | E C3L 028 | IND3 | H2 | ** | JR001 | 1075606 | LOF53 01 | INDU |
005 EAGX019031 | E T19 033 | IND6 | DEIM | **DANGEROUS** |
006 SHPX240275 | L T12 131 | IND6 | NRH2 | AFOISN | JR001 | 1075318 | LOF53 01 | INDU |
**POISON GAS ZONE A** |
**FLAT YARD - DO NOT KICK**
```

No, need buffers
29. If the car below was added to a train with no hazardous materials, would its Key Train status change?

No

30. Does the rear helper shown below comply with the Placement in Train requirements?

Yes
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