

3. Whenever the T-17, T-18 or T-19 FRA Geometry Cars are operated, including through a designated "yard or restricted" limits and 'other than main track' territories, the railroad will provide either a Locomotive Engineer/Pilot, Traveling Engineer or Road Foreman to pilot the vehicle. The T-17, T-18 and the T-19 Geometry Cars will be governed by applicable operating rules when operating in either signal or non-signal system territories (except that auto routing and automatic clearing features will not be used and all dual control switches will be blocked). Absolute block protection or alternate protection methods, controls or authority (including within "yard or restricted" limit territory), will be applied to protect the T-17, T-18 and the T-19 Geometry Cars against following and opposing trains or on-track equipment. The absolute block will not be required for the T-16 and T-20 when being towed and operating as a train.
4. FRA T-17, T-18 and the T-19 Geometry Cars will operate as a train. Authorization will not be issued to the FRA T-17, T-18 and the T-19 Geometry Cars within the same or overlapping limits of another train or on-track equipment, except to facilitate the FRA T-17, T-18 and the T-19 Geometry Car's disabled movement, if necessary, and in accordance with the railroad's operating rules. The FRA T-17, T-18 and the T-19 Geometry Cars will not be operated by lineup, movement of track cars or similar on-track equipment authorities.
5. The Survey Director, prior to the FRA Geometry Car operation, will communicate directly with the train dispatcher and train crew or pilot, to insure that all operating rules, in effect on the route to be traveled, are understood and confirm the FRA Geometry Car is being dispatched as a train. Reference to applicable operating documents will be made to confirm such information, prior to departure. The Survey Director will be stationed in the immediate vicinity where the FRA Geometry Car method of operation, procedures and movement can be monitored.
6. All mandatory directives will be transmitted and received in compliance with railroad rules and instructions. For purposes of this instruction, all references to assigned crew member apply only to the train crew or pilot. The FRA Geometry Car operator relies on the train crew or pilot to identify relevant railroad physical characteristics, movement authority limits and authorized speeds, a sufficient distance in advance.
7. In automatic block signal system or traffic control system territory, the FRA Geometry Car should not be stopped on sand or other similar rail surface conditions affecting the shunting of the track circuit. If such a stop cannot be avoided, the FRA Geometry Car will be moved immediately a sufficient distance to clear that affected portion of the rail.
8. Interlocking machines will be operated manually for the FRA Geometry Car movements (automatic clearing and routing features will not be used). The control machine operator will be kept informed of the progress of the FRA Geometry Car from one control point to another. An interlocking control operator will not change the position of any switch or indication of any signal, until informed that the FRA Geometry Car is clear of the interlocking or a section thereof. Where provided, electrical or mechanical blocking devices will be used on switch and signal controls. If the FRA Geometry Car is stopped within the limits of any interlocking, the control operator or dispatcher will be notified of the stop and the precise location. The FRA Geometry Car will not be stopped within the limits of automatic interlocking or a non-interlocked, at grade, railroad crossing.
9. The FRA T-17, T-18 and the T-19 Geometry Cars are equipped with operating controls at either end. When appropriate, instructions will be given to the FRA Geometry Car operator to change ends and operate from the rear of the FRA Geometry Car. Any reverse movement will be conducted, in accordance with the railroad's operating rules.
10. In the event the FRA T-17, T-18 and the T-19 Geometry Car operators are to be relieved for any reason, the Locomotive Engineer/Pilot may be utilized (if agreeable) to continue FRA Geometry Car operations to the day's final tie-up point. If the Locomotive Engineer/Pilot is not willing or prohibited from operating the FRA Geometry Car, the survey should be stopped at a suitable point short of the scheduled tie-up or a locomotive will be requisitioned for tow-in. This contingency is one that will be addressed at the beginning of the survey to allow for ample planning.
11. Self propelled FRA Geometry Car will approach all highway-rail grade crossings equipped with automatic warning devices prepared to stop, until it is determined that the warning devices activate and the FRA Geometry Car occupies the crossing. On ground protection against highway vehicles will be provided when automatic warning devices fail to fully activate, the FRA Geometry Car interferes with the normal function, or when prescribed by railroad rules or instructions.
12. The maximum operating speed of the T-17, T-18 and the T-19 is 90 MPH when self-propelled, and 110 mph when towed by a locomotive. The vehicle is not equipped with automatic cab signal, automatic train stop, or automatic train control systems. FRA T-17, T-18 and the T-19 Geometry Cars cannot negotiate curves greater than 20-degrees. Additionally, due to truck center length, the center of car swing-out clearance is limited on curves greater than 13-degrees, therefore may restrict safe movement. The maximum authorized speed of the T-16 and T-20 is 125 MPH and is not restricted by special track work.
13. Neither FRA nor contractor employees will operate a railroad switch or derail and will rely upon a railroad employee to perform that function. Protective devices (i.e., blue signal, derails and locking devices, owned by FRA) will be applied by contractor employees after receiving authority for placement from the appropriate railroad representative. A 'blue signal' will be displayed on or near the FRA Geometry Car control stand at a readily visible location and the 'key' removed when on ground instrument verification (i-v's) checks are made. Similarly, positive protection (brakes placed in emergency position and surrendering of the locomotive reverser) will be imposed by FRA when the FRA Geometry Car is towed by a locomotive.
14. Except within a locomotive servicing area or car shop area, the FRA Geometry Car may be repositioned by the FRA at anytime on a track or portion of a track that is exclusively occupied by the FRA Geometry Car and protected by FRA owned devices. Within a locomotive servicing area or car shop area, a 'railroad's blue signal rules' will be in place and complied with, to protect 'anyone' on, under or about the FRA Geometry Car. The FRA Geometry Car may be repositioned, only after the movement is authorized by the railroad employee-in-charge of the workmen and approved by the FRA.
15. When unoccupied and at the request of FRA, FRA Geometry Car protection will be provided by the railroad. Additionally, the FRA Geometry Car will not be relocated or coupled to other rolling equipment without permission by the FRA. To prevent undesirable access, a remotely controlled or manually operated switch providing entrance to the track occupied by the FRA Geometry Car will be aligned against movement to that track. Where provided, electrical or mechanical blocking devices will be used on the switch

and signal controls. Additionally, the switch will be secured with an effective locking device, exclusive to FRA. The switch stand's operating mechanism will be equipped with a visible all-weather display tag warning any users, "**Out of Service-Do Not Operate.**" If a switch cannot be aligned and locked, as described, derails capable of restricting access will be used instead of an effective locking device. The placement (Protective devices, owned by FRA, will be placed not less than 150-feet from each end of the FRA Geometry Car, where appropriate of front and rear "portable train control" signs will be displayed in the center of the track, adjacent to derails, marking the presence of the FRA Geometry Car. The warning sign will consist of 16x24-inch red placard, signifying rolling equipment cannot pass. A FRA Geometry Car wheel will be securely chocked to prohibit movement on its own.

### 38. Inhalation Hazard Car Handling Instructions

Any train carrying one or more loaded tank cars with a SCHI code of "IH" as identified on train list, must comply with the following:

1. When stopped by a trackside/wayside warning device, the indicated car (hazmat or not) must be set out.
2. When moving, trains experiencing an emergency application of the brakes whether intentional or not, must be protected as prescribed by rule 6.23 and as supplemented in the current System Special Instructions all Subdivisions. In addition, the entire train must be inspected for derailed or defective cars. If the train is stopped at a location where it cannot be safely inspected (for example: on a bridge), the train may be moved, at the discretion of the appropriate supervisor or train dispatcher, to the nearest location where it can be SAFELY inspected, but at no more than 5 MPH.

The following are requirements for handling tank car shipments containing materials that require the notation "Poison (Toxic)-Inhalation Hazard" and "Inhalation Hazard" operating in non-signaled track warrant control territory on the following subdivisions:

- Amory Subdivision - Between Amory and Columbus
- Beatrice Subdivision - Between Crete and Beatrice
- Conroe Subdivision - Between Silsbee and Somerville
- El Paso Subdivision - Between Belen and El Paso
- Gateway Subdivision - Between Klamath Falls and Keddie
- Great Falls Subdivision - Between Great Falls and Shelby
- Laurel Subdivision - Between Great Falls and Laurel
- Marshall Subdivision - Between Wilmar and Sioux City
- Oregon Trunk Subdivision - Between Chemult and Bend
- Phoenix Subdivision - Between West Williams Jct. and MP 181.2
- Silsbee Subdivision - Between Beaumont and Silsbee
- Sioux City Subdivision - Between Sioux City and Ashland
- Sweet Grass Subdivision - Between Shelby and Sweet Grass
- Zap Line Subdivision - Between Beulah and Mandan

Work Order documents and other TSS commands will identify shipments with the "IH" SCHI code.

The train list and profile for train crews will carry the banner wording of "IH TRAIN" when moving on the restricted subdivisions and carrying two or more loaded poison (toxic) inhalation hazard tank cars and/or inhalation hazard tank cars. Note: On the Phoenix Subdivision between MP 172.5 and Phoenix, the following instructions will be in effect if the train is carrying one or more loaded poison (toxic) inhalation hazard tank cars and/or inhalation hazard tank cars. The two or more loaded tank car requirement will remain in effect between West Williams Jct. and MP 172.5.

The following instructions are in effect on the subdivisions or part of the subdivisions listed above:

- The route must be evaluated prior to an IH Train operating

on the subdivisions indicated above. The IH Train must be the next movement on these subdivisions after the evaluation. If an authority is granted after the route evaluation has been performed, and the IH Train has not passed location where track will be entered, another route evaluation must be performed prior to authorizing the IH Train.

- The Transportation Service Plan gathers cars to run on .. specified days. On days scheduled to operate with TIH/PIH cars, a train should not be reduced to one TIH/PIH car in an effort to avoid the required Track Evaluation.
- Maximum speed of IH Trains is 35 MPH.
- When meeting any other train, the IH Train will hold the main track. When meeting another IH Train, the IH train with the most Poison (Toxic)-Inhalation Hazard and Inhalation Hazard shipments will hold the main track.
- A train on a siding to meet an IH Train must be stopped before the IH Train on the main track passes. Conductors of the IH Trains will be advised by the dispatcher of meeting points and the conductors will verify that the train in the .. siding is stopped before the IH Train has passed.
- MW employees must not operate main track switches when using individual train detection (lone worker or lookout for minor work or routine inspection). Authority must be obtained to operate main track switches.
- When MW employees are working with a Form B Track .. Bulletin, after the route is evaluated for the IH Train movement, main track switches must not be operated and maintenance must not be performed on the track until the IH Train has passed.

Unless relieved of the requirement to do so by the BNSF train dispatcher, the crew operating a TIH/PIH train on a foreign railroad must, at the earliest opportunity, notify the other railroad's train dispatcher that the train is a TIH/PIH train.

### 39. Rule of the Week /Dispatcher Daily Job Briefings

All TY&E, Engineering and Mechanical employees must review the requirements of the Rule of the Week. Train Dispatchers must review the Dispatcher Daily Job Briefing distributed by email. Please direct any questions you may have to your immediate supervisor. You should be prepared to discuss the requirements of the Rule of the Week or the Dispatcher Daily Job Briefing with your supervisor. These rules/briefings will be included in Operations Testing procedures.

### 40. Rear End Restricted Cars

Cars restricted to "rear end only" may be in train up to five cars ahead of rear car. Certain cars may require extreme rear end movement because of mechanical deficiencies.

### 41. Car Identification B-End

**Conventional Equipment:** The "B" end of the car is the end where the hand brake is located. Face the "B" end of the car. The left side of the car is to your left and the right side of the car is to your right as you face the "B" end. Count axles from the "B" end beginning with No. 1 being closest to you and No. 4 being farthest away. If the defective journal or wheel is the third axle away from the "B" end of the car on the left side as you face the equipment you will report it as "L3."

**Articulated Equipment:** The important thing is to locate the "B" end of the car. Each segment or unit of such cars is identified by a letter. This letter and the car number are shown on small badge plates located on each segment or unit of the car. The end segments are designated "A" and "B." The interior segments or units are designed (beginning at the "B" end) by the letters "C" through "E" on the five unit or segment cars. Locate the "B" end of the car as indicated by the stencil. Do not rely on the location of the hand brake. Many of these cars are equipped with a hand brake on each end.