

Study Guide

This short study guide contains the key points from the WITPAC self-directed online course. You may print it to use as a reference during your prep exam. Copies will be made available for you to use during your instructor-led session and knowledge exam, or you can bring your own.

»»» Introduction

Understanding the hazards



Blades

- Blades tend to be long and tall, and they are often wide.
- Their light color makes them hard to see under certain conditions. They should have tip socks to improve visibility.
- Blades are extremely flexible. On bumpy roads, they may flex enough to hit a vehicle that is following too closely.



Towers

- Tower sections are typically overheight, overlength, and overweight, and they also have low ground clearance.
- Larger tower sections are usually hauled on Schnabel trailers. A Schnabel is a two-piece trailer that hooks onto either end of the tower section.
- Schnabel trailers can be lowered and raised if needed to accommodate certain terrain.



Other large components

- These include things like machine heads (also called nacelles), hubs, and drivetrains. Typically, they are overwide and/or overweight.

Module 1: Team fundamentals

The basics of good teamwork



The transport driver is the leader of the team, but every member of the team should feel free to speak up, ask questions, and tell the rest of the team if they see something wrong. Any member of the team should call the carrier or other authority if they think that another team member has made a decision that puts the team at risk.

Required safety procedures

Exiting your vehicle

Whenever you exit your vehicle (even if you will not be in a crush zone), follow this steps.



Think ahead



Wear proper PPE



Carry a working two-way handheld communication device (radio)



Use Call-Response-Confirmation to communicate with your team

Crush zones

A “crush zone” is any place around the trailer or load where a person could be crushed or struck.

Mandatory crush zone safety procedures

Whenever someone will be in a crush zone, you must:



Chock the trailer wheels



Use visual indicators such as cones to remind the driver that someone is in the crush zone

Additional crush zone safety procedures to use when feasible

Lockout

When it is feasible, it is best practice to implement lockout procedures when someone is working near the trailer. Here are the steps:



Power down the engine, or use an air cuff brake lock if the engine needs to stay on.



Place the ignition or air cuff key in the lockout box.



Team members should each place their personal locks on the lockout box.

Maintain line of sight

Whenever feasible, it is best practice for the load driver to be out of the vehicle to assist or observe personnel who are working in the crush zone. The load driver should make sure they remain in the person’s line of sight. This is a good practice to follow during axle unpinning or pinning for steerable turns.

After someone has been in the crush zone

Once work in the crush zone has been completed, do the following:

1. Reverse lockout, if necessary
2. Remove wheel chocks
3. Load driver should perform a visual check (by walking around the trailer or looking down both sides)
4. Load driver should remove visual indicators
5. Load driver should perform an “all clear” and honk the horn before moving.

Performing an “all clear”


The transport driver should always perform an “all clear” before moving from a stop.


1. Do a verbal check (via radio) to ensure that no one is in a crush zone before you move the trailer.
2. Wait for every team member to confirm that they are out of the crush zone.
3. Honk the horn and wait for five seconds before beginning movement.


Communications

Call-Response-Confirmation

In high-risk situations where the load is moving at slower speeds (such as steerable turns), or any other time when a team member is on foot, radio communications should be in the Call-Response-Confirmation format.

 **“Call”** is a statement, a question, or a notification of intention.

 **“Response”** allows one or more members of the team to acknowledge that they have heard the information, or provide an answer to a question, if needed. The response must be more than a simple “copy that.”

 **“Confirmation”** is given by the person who first made the statement or asked the question.


Communications need to be clear

Give precise measurements when communicating about distance.


Don't text and drive

Under no circumstances should a member of your team ever read or send a message while driving. There is no exception to this rule.

Sterile channel

 Establish a sterile channel if you are navigating a hazardous portion of the route. A sterile channel is one where there is no small talk.

STOP! STOP! STOP!

 Any member of the team can call “STOP! STOP! STOP!” at any time, and the entire team must stop immediately.

Module 2: Route surveys

Using route surveys during pre-trip activities



What is a route survey?

A route survey is a detailed document that is separate from the permit. The route survey provides detailed information about the route and any hazards along it. The route survey ensures that the planned route can be safely traveled, and provides a step-by-step guide for the load movement team during the move itself.

Who should receive the route survey?

The driver should receive a copy of the entire route survey from the carrier. Each member of the team should also receive a copy of the route survey or the route summary.

The route survey should

- reflect accurate information about the load dimensions and the route.
- be consistent with the information on the permit(s).
- not be more than 30 days old, unless the route has been in continued use by the carrier since the survey was completed.

If the survey is deemed inadequate by any member of the team, or if any team member did not receive a copy of it, the move should not proceed.

Using the route survey during the move

Route survey as a reference

The route survey will help your team know what hazards are coming up along the route, and other key information such as which lane to be in to clear an overhead obstruction.

On multi-day moves, the route survey should be part of the pre-trip meeting each morning.

If the permitted route can't be followed

- the load movement must stop and park safely.
- a new route must be authorized by the carrier and permitting agency.
- the carrier may ask for the team to perform a physical survey of the alternate route. The physical survey should be performed by the front P/EVO and the transport driver together. They should complete it in the same manner as a normal route survey.

Alternate routes

The carrier and permitting agency are the only ones who can authorize an alternate route after it has been surveyed. Make sure to discuss the alternate route with your team so that everyone understands the hazards, and proceed with caution after receiving permission to do so from the carrier.

Module 3: Pre- and post-trip meetings

The pre-trip meeting

Why have a pre-trip meeting?

Having a thorough pre-trip meeting and equipment check is the best way to avoid costly and dangerous incidents down the road. Everyone should come away from the meeting knowing what to expect along the route.

Who should attend?

The driver is responsible for leading the meeting, but everyone must participate, and should feel free to speak up during it.

When should the pre-trip meeting take place?

Meetings may need to take place more than once during the move. Pre-trip meetings should be held at the start of each day (on a multi-day move), and whenever additional personnel join the team.

The preferred order of pre-trip activities is



1. Identify team members and roles



2. Inspection, measurement, and documentation



3. Route discussion and communications



4. Emergency planning

Measuring the load

The driver and high pole P/EVO (if there is one) should measure the load at the start of the move. It is a good idea for the rest of the team to observe this process.

The load should also be measured at the beginning of each day on a multi-day move, and whenever the trailer or load configuration has been adjusted.

Load dimensions on the permit

The actual load dimensions may not exceed those listed on the permit and route survey. Otherwise the move cannot proceed.

Other meetings

Modified or “on the go” meetings

If personnel join the team after the move has begun, you should stop as soon as possible and hold another meeting to get them up to speed.

Post-trip activities

At the end of each day, your team should inspect the load for damage or shifting, put cones in place to protect the load, and make sure it is in a place where it will not be struck by traffic.

Post-trip meetings are an important way to build up your knowledge and skills.



Hold a post-trip meeting at the end of each day.



The entire team should be present.



Discuss what went well, anything that went wrong, and what could go better.



Plan for the following day's pre-trip meeting, if you're on a multi-day move.



Report any near misses to the carrier.



This is also the time to fill out any required documentation.

Module 4: Best practices for front and high pole P/EVOs

The job of a front/high pole P/EVO



The job of a front/high pole P/EVO is to warn oncoming drivers, assess whether the load can safely clear any obstructions, and control traffic, if needed.

High pole equipment

The high pole and striker tip must be professional-grade, non-conductive, and rigid enough to withstand high speeds. The mount must be securely attached to the frame of the vehicle. Homemade or other non-professional-grade high poles are not acceptable.

Setting the high pole

- Measure the load prior to setting the high pole.
- The high pole should only be set by the high pole P/EVO.
- The high pole should be set at least 6 inches above load height.

Re-checking load and high pole measurements

At the beginning of each day, as well as anytime the trailer is raised or lowered, the driver and high pole P/EVO should confirm the load measurements and verify that the high pole is properly set.

During load movement

The front/high pole P/EVO and the load driver must communicate and work together to make sure that all obstructions can be safely cleared. This includes ensuring that the load is in the proper lane of travel.

The load driver should make sure there is enough spacing between the load and the front P/EVO so that the load can safely stop if the high pole strikes an obstruction.

If the high pole strikes an obstruction

1. Call STOP! STOP! STOP! The entire team must stop safely.
2. Notify the carrier immediately so that any other loads along the route know of the risk.
3. The high pole P/EVO and load driver should remeasure the obstruction slowly and carefully. Make sure to measure all the way under the obstruction—not just the edges.
4. Only the carrier can decide if the load is to proceed after remeasuring.

If the load cannot safely clear the obstruction, an alternate route must be approved and a revised permit issued.

Members of the movement team may never lift a utility line. If the high pole strikes a utility line, your team must request authorized personnel to lift it.

If the load strikes an obstruction

1. All support vehicles must stop and park safely. Take care when exiting your vehicle.
2. Check for any injuries and call emergency services if needed.
3. Contact the carrier to report the incident, and follow their instructions.
4. Implement emergency traffic control measures (such as triangles, flares, or cones). Perform flagging duties to direct traffic around the area, if necessary.
5. Find a safe place to wait that is protected from approaching traffic and has a route of escape. It is recommended that you do not wait in your vehicles.

Module 5: Best practices for steerpersons and rear P/EVOs

Steerperson and rear P/EVO duties



The job of a steerperson

A steerperson is a person who steers any axle, or group of axles, of an articulated trailer, while not on the trailer. A steerperson is different from a tillerman. A tillerman operates steerable rear axles while on the trailer, often at highway speeds.

If there is a steerperson on your team, it will be their duty to monitor trailer position and status throughout the move.

The job of a rear P/EVO

The rear P/EVO is responsible for all standard rear piloting duties, including warning and monitoring traffic.

Separate jobs, separate vehicles

A steerperson may not function as rear P/EVO on a move requiring WITPAC certification. The two jobs must be filled by separate personnel, and they must be in separate vehicles.

Pre-trip activities for steerpersons

During the pre-trip meeting, the steerperson should inspect the trailer, remote, and pony motor, and coordinate with the driver if the pony motor needs more than one person to start it. Make sure there are extra batteries for the remote.

The steerperson should note the dimensions of the load, especially any rear overhang.

Discuss any steerable turns along the route. Everyone should know their role and position for each.

During load movement

The steerperson must communicate clearly with the rest of the team regarding the trailer and load position, especially when the load is passing an obstruction or hazard. Due to road grade or other factors, it is possible for the rear of the load to strike an obstruction even if the front of the load was able to pass under it.

Dusty roads

If you are following the load on a dusty road and the dust obscures your vision, ask the load driver and the rest of the team to slow down or stop until the dust clears. Close your windows so that the dust does not interfere with your breathing.

Performing a steerable turn

Plan ahead

Before leaving their vehicle, the steerperson should already be observing the scene and planning ahead for the turn. Remember to exit the vehicle safely (see the steps in Module 1).

Crush zone safety measures

Any time a person will be entering a crush zone (for instance, to unpin or pin the axles), you should use the mandatory crush zone safety procedures (chock the wheels and use visual indicators). It is best practice for the load driver to exit the cab and remain in the steerperson's line of sight while they are in the crush zone. The team must also work together to monitor and control traffic whenever a team member is on foot.

Take it slow

Slower is better on a steerable turn.

Reverse the crush zone safety measures and perform an "all clear"

The load driver should always perform an "all clear" and honk the horn before moving if a team member has been in the crush zone.

