



U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

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RANDOM ALCOHOL AND CONTROLLED SUBSTANCES TESTING (CST)

Review 382.305(i) thru (m). Drivers are to be selected by a scientifically valid method. **All drivers must have an equal opportunity to be selected at the time of selection.** Ensure all drivers are placed in the random pool as soon as they are hired. All drivers must be included, that is the total number of CDL drivers who either are driving or have driven and are expected to drive a commercial motor vehicle requiring a commercial drivers license in the future. The number of driver positions used is the actual number of CDL drivers at the time of selection. All selected drivers must be tested prior to the next selection. Current Annual rates: Controlled Substances 50%; Alcohol 10%. The tests must be unannounced. The tests must be spread reasonably throughout the calendar year. The driver must proceed to the collection site when notified he/she is to be tested. Alcohol testing the driver must be tested while the driver is performing a safety sensitive function, just before performing a safety sensitive function, or just after performing a safety sensitive function.

The formula for figuring Alcohol and Controlled Substances Random Testing Rates is located in the preamble of 49 CFR Part 382 technical amendments published in the March 8, 1996 Federal Register.

The formula is:

$$T = 50\% \times \frac{D}{P} \text{ For Controlled substances.}$$

The formula is:

$$T = 10\% \times \frac{D}{P} \text{ For Alcohol. (For 1998 & after.)}$$

T = Total random tests (must equal or exceed).

D = driver positions eligible to be tested.

P = Number of test periods per year.

**RANDOM ALCOHOL AND CONTROLLED SUBSTANCES TESTING (CST)**

How many test do I perform? The answer to the question is:

Quarter 1 = 10 Drivers  
 Quarter 2 = 30 Drivers  
 Quarter 3 = 300 Drivers  
 Quarter 4 =  $\frac{10 \text{ Drivers}}{350 \text{ Drivers}}$

$$50\% \times \frac{D}{P} = T \quad .50 \times \frac{350}{4} = 43.74 \text{ (round up to) } 44$$

$350/4 = 87.5$   
 $87.5 \times 50\% = 43.75 \text{ (44)}$

How many drivers have to be tested in order to hit the 50 % CST rate? The answer is 44.

If you want to figure the tests to be done for a testing period you may also apply the formula.

**Example 1:**

Using above numbers

	Test rate	Drivers divided by Testing periods
Testing period Quarter 1: Example	50% x	10/4 = 1 test
Testing period Quarter 2: Example	50% x	30/4 = 4 tests
Testing period Quarter 3: Example	50% x	300/4 = 38 tests
Testing period Quarter 4: Example	50% x	10/4 = 1 test

**Example 2:**

	Test rate	Drivers divided by Testing periods
Testing period 1: Example	50% x	10/6 = .83 or 1 test
Testing period 2: Example	50% x	30/6 = 2.5 or 3 tests
Testing period 3: Example	50% x	300/6 = 25 tests
Testing period 4: Example	50% x	10/6 = .83 or 1 test
Testing period 5: Example	50% x	20/6 = 1.6 or 2 tests
Testing period 6: Example	50% x	10/6 = .83 or 1 test

