



**Aviation Safety  
Office of Aerospace Medicine  
Drug Abatement Division**

**GUIDANCE ALERT  
FAA's Random Drug and Alcohol Testing Program**

The Federal Aviation Administration's (FAA's) Drug Abatement Division is issuing the following guidance to help aviation employers with developing and maintaining an unannounced random drug and alcohol testing program that meets the requirements described in 14 Code of Federal Regulations (CFR) part 120, §§ 120.109(b) and 120.217(c). This Alert does not constitute a regulation. It describes an acceptable means, but not the only means, of complying with the random drug and alcohol testing requirements.

Part 120 applies to the following employers:

- a. All air carriers and operators certificated under 14 CFR part 119 and authorized to conduct operations under 14 CFR part 121 or part 135.
- b. All air traffic control facilities not operated by the FAA or by or under contract to the U.S. military.
- c. All operators as defined in 14 CFR § 91.147.
- d. All 14 CFR part 145 certificate holders who perform safety-sensitive functions and elect to conduct drug and alcohol testing under part 120.
- e. All contractors who perform safety-sensitive functions and elect to conduct drug and alcohol testing under part 120.

**RANDOM TESTING REQUIREMENTS**

**1. What is the purpose of random drug and alcohol testing?**

The primary purpose of unannounced random testing is to deter drug use and alcohol misuse by aviation employees while performing safety-sensitive duties. Random testing is an effective means to remove employees engaged in such use from the performance of safety-sensitive functions.

**2. What do the random testing regulations require?**

As an aviation employer, random testing is a required component of your FAA-mandated drug and alcohol testing program. To conduct random testing, you must:

- a. select employees for testing using a scientifically valid method;
- b. ensure each employee has an equal chance of being tested each time selections are made;
- c. test the selected employees in a way that is unannounced;

- d. conduct random testing at times spread reasonably throughout the calendar year; and,
- e. test enough employees to meet the “minimum annual percentage rate” set by the FAA Administrator.

### **3. How many random tests am I required to conduct each year?**

The number of tests you are required to conduct each year is determined by the random drug and alcohol testing minimum annual percentage rate, which is published in the Federal Register each December and available on our web site ([www.faa.gov/go/drugabatement](http://www.faa.gov/go/drugabatement)). The annual rates are set annually by the FAA Administrator and based on the reported positive rate for the entire industry. The FAA’s current annual rates are 25% for drug testing and 10% for alcohol testing.

To determine how many employees to test each time random testing is scheduled, you should divide the number of planned tests for the year by the number of testing periods in the year. If the number of covered employees varies greatly from one testing period to the next due to seasonal or economic conditions, you should recalculate the annual rate during any or all random selection draws. Refer to Attachment A of this alert for more information on calculating the number of tests needed to meet the annual percentage rates.

## **CALCULATING THE NUMBER OF TESTS REQUIRED**

### **4. What method can I use to calculate the number of random tests required for a given year?**

An accepted method for calculating the number of tests required to meet the minimum annual percentage rate is described in attachment A. To ensure that you meet the random testing requirements, you must calculate the number of required random tests for a given year using the minimum annual percentage rate and the average of the number of covered employees in the random pool at the time of each random selection.

### **5. How do I calculate the number of random tests required for a given year if my company began operations mid-year?**

If your company began operations mid-year, you must still meet the required annual rate of testing, 25% for drugs and 10% for alcohol. You are required to calculate your average number of covered employees for the year with the number of selections for the remainder of the year. Refer to Attachment A for an accepted method to calculate the number of random tests required for a given year.

### **6. How do I calculate the number of random tests required for a given year if I moved my employees from a combined random testing pool to a stand-alone random testing pool during the year?**

If your employees are in a combined random pool with a Consortium/Third Party Administrator (C/TPA) and you change to a stand-alone pool mid-year, you must ensure your calculations and

random selections are based on the total number of employees eligible for testing during the remaining testing cycles for that year.

**7. Do canceled tests count toward meeting the annual random testing rate?**

No. Only alcohol tests that are completed by a breath alcohol technician or screening test technician may count towards meeting the random alcohol annual testing rate. Tests that are cancelled due to a fatal flaw or problems not corrected will not count. Similarly, only random drug testing specimens analyzed by your approved laboratory and verified by your Medical Review Officer (MRO) can be counted toward meeting the random drug annual testing rate. If a specimen cannot be analyzed or verified and is canceled, that specimen cannot be counted toward meeting the annual rate. The MRO is responsible for notifying you in the event that an observed collection must be conducted following a canceled test. Since a canceled test does not count toward meeting the minimum random testing rate, you may need to increase your random selections during the remaining test cycles to ensure that you meet the annual rate at the end of the calendar year.

**8. Do refusals count toward meeting the annual random testing rate?**

Yes. All refusals to submit to random testing must be factored into your calculation to determine if you met the annual random testing rate. Refer to 49 CFR part 40, §§ 40.191 and 40.261 to learn more about what constitutes a refusal to submit to testing.

**9. If I contract with a C/TPA to administer my random testing program, how are the numbers of required random tests calculated?**

If you contract with a C/TPA, the C/TPA is subject to the same criteria discussed above. A C/TPA may combine the employees of several DOT-regulated companies into a single random pool. In this case, the C/TPA would select and test at the highest minimum annual rate that is established by the DOT agency that regulates the covered employees. For example, if you have employees regulated under the Federal Motor Carrier Safety Administration (FMCSA) and the FAA in a combined pool, you must test the pool at a 50 percent minimum rate if that is FMCSA's minimum annual testing rate. The annual random testing rates for all transportation agencies are available on the DOT's Office of Drug and Alcohol Policy and Compliance (ODAPC) web site ([www.transportation.gov/odapc](http://www.transportation.gov/odapc)). A C/TPA may also maintain a separate pool for each employer and apply the minimum annual percentage rate separately for each pool.

It is important to remember that each employer is responsible for its C/TPA meeting the annual percentage rates; therefore, it is important that you maintain constant communication with your

C/TPA throughout the year. This is especially important if you are never notified of a random selection. Do not wait until the end of the year to ask.

## **STRUCTURING THE RANDOM TESTING POOL**

### **10. How should I structure my random testing pool(s)?**

There are several ways that your random testing pool(s) can be structured. Two of the most common methods are individual selection/single pool, and individual selection/multiple pools. These methods are only examples of ways to structure and operate random selection pools. Some methods may work better depending upon your company's organizational and geographical structure. It may be helpful to discuss their relative merits and implementation concerns with a statistician.

a. **Individual Selection/Single Pool.** Selection of individuals from a single pool is perhaps the easiest to implement and maintain. This type of pool has the following features:

- (1) all covered employees are included in a single pool and each is assigned a unique identifier such as a Social Security number, payroll identification number, or comparable identifying number;
- (2) the number of employees to be tested is calculated using the instructions in Attachment A;
- (3) selection of the specified number of employees is conducted using a scientifically valid method, such as a random number table or a computer-based random number generator; and
- (4) each safety-sensitive employee must have an equal chance of being tested each time a selection is made.

b. **Individual Selection/Multiple Pools.** Selection of individuals segregated into separate pools can ensure that the selection is spread evenly across employee groups within the covered population. This is especially useful in companies that have large numbers of employees who are primarily in one location, such as mechanics, and others who are mobile and whose schedules are unpredictable, such as pilots and flight attendants. It may also be useful in organizations with many job sites. The procedures for managing multiple pools are the same as for a single pool. Each pool is treated separately and tested at the same minimum annual percentage rate. An individual may be placed in only one pool per company. This helps ensure every employee has an equal chance of being tested each time selections are made. This type of pool has the following features:

- (1) all covered employees are included in a pool that is defined by location or job category. For example, all pilots might form a pool, or all covered employees in a hub location might form a pool;
- (2) each employee within a pool is matched by a unique identifier such as a Social Security number, payroll identification number, or comparable identifying number;

- (3) the number of employees to be tested from each pool is determined by multiplying the number of employees in a pool by the minimum annual percentage rate and dividing the result by the number of testing periods to be conducted during the year. See Attachment A; and
- (4) selection of the specified number of employees is conducted using a scientifically valid method, such as a random number table or a computer-based random number generator.

## **11. How should I maintain a random selection pool?**

Prior to each random selection, you must ensure that only safety-sensitive employees are included in the random pool, and all safety-sensitive employees are in the random pool. When safety-sensitive employees leave or transfer out of a safety-sensitive position, or are assigned to work solely outside of the territory of the United States, you must remove the employee from the random pool. Employees may be removed from the random testing pool while on extended absence or furlough. We believe it is a good practice to remove them from the pool if the absence lasts 90 days or longer.

Any employee who is removed from the random pool must be added back immediately upon resuming their safety-sensitive position, and prior to the next random selection.

## **MAKING RANDOM SELECTIONS**

### **12. What are some examples of acceptable scientifically valid methods of random selection?**

A scientifically valid method of random selection could include a random-number table or a computer-based random number generator that is matched with employees' Social Security numbers, payroll identification numbers or other comparable identifying numbers.

### **13. How should I conduct selections?**

You may select covered employees for testing from each pool and test for both drugs and alcohol, or have a selection list for drug and another for alcohol. Using a single random selection list for both drug and alcohol testing can create difficulties when the testing rates are different. If using a single list, to avoid any appearance of manipulation, you should document how employees will be designated for drug and alcohol testing. For example, you might decide to test names on the list for drugs and alcohol, starting at the top of the list until the alcohol rate is met and the remainder for drugs only. One way to avoid issues when using one random selection list of covered employees for both drug and alcohol testing is to ensure equality by making both the drug and alcohol selections from the full list of eligible employees in the random pool each time a selection is made.

Records documenting the selection process being used are important to provide a basis for assessing the effectiveness and compliance of the random program.

It is important to ensure that your random selection list is kept confidential until notifications can take place. Therefore, we recommend that you limit access to the selection list to those individuals responsible for managing your random testing program.

## **RANDOM SELECTIONS AND SPECIAL GUIDANCE FOR SMALL OPERATORS**

### **14. How do I ensure that each covered employee has an equal chance of being tested each time selections are made?**

To ensure all covered employees have an equal chance of being tested, you must ensure that your random testing pool includes all safety-sensitive employees, including new hires or transfers, prior to each selection. A good practice is to set up a method for reviewing the random pool just before making a random selection, whether you conduct testing on your own or use a C/TPA. You must ensure that any employees no longer employed or subject to testing is removed, and employee who were previously removed from the pool are added back into the random pool as soon as they return to performing safety-sensitive duties. It is important to document your random testing methods for updating the pool prior to each selection to ensure everyone subject to testing is included in the pool.

### **15. How can a small operator maintain deterrence without testing more employees than necessary to meet the regulatory requirements?**

Deterrence is achieved by making each employee subject to testing each time a selection is made and ensuring each employee knows that his or her name may be drawn at any time. One method to maintain deterrence without testing more than the minimum percentage required by regulation is to contract with a C/TPA and include your employees in a combined pool.

If you manage your own random testing program, you may want to consider adding dummy entries (names or numbers) to your random testing pool. Although the rule language does not explicitly address the use of dummy entries, it is a practice that can help a small operator achieve the purpose of random testing, which is to provide an ongoing deterrence from drug use or alcohol misuse. The use of dummy entries cannot alter the clear requirement of the regulation, such as the condition that only safety-sensitive employees are tested and that each safety-sensitive employee has an equal chance of selection. It is important to evaluate when to use dummy entries, specifically, at the end of the testing year. If prior to the end of the year you have not actually selected a safety-sensitive employee, you must remove all the “dummies” and make a selection. This will ensure you meet your annual testing rate.

Although it is up to each employer to determine whether they will use dummy numbers versus dummy names, we strongly encourage the use of numbers to avoid any uncertainty about compliance with the regulation. Using dummy numbers can also help minimize the burden of a future inspection by the FAA when trying to verify whether the dummy name is a real person or not.

## **16. What other options do small operators have for conducting selections?**

Small operators may randomly select the quarter(s) that testing will be done, and then select the employee to be tested during the selected quarter(s). The mechanics of this last option are discussed in Attachment B of this alert.

## **17. Who should make random selections for small operators?**

To assure fairness, we recommend someone other than a safety-sensitive employee subject to testing make the random selections and notify those selected. Single owner-operators should use another person to conduct the random selection, such as a C/TPA or administrative support staff. A spouse or other family member would also be appropriate for this purpose; however, the selection must be held in confidence until the employee is notified to report for testing.

## **18. How do I ensure that each covered employee has an equal chance of being tested each time selections are made?**

You must ensure that your random testing pool is clean prior to each selection. A good practice is to set up a method for reviewing the random pool prior to each selection, adding the new safety-sensitive employees and removing any that are no longer employed or subject to testing. Employees who were previously removed from the pool should be placed back into the random pool as soon as they return to performing safety-sensitive duties. It is important to document random testing methods to ensure they are applied equally.

## **TESTING SELECTED EMPLOYEES**

### **19. How often should random testing be done?**

What makes random testing effective as a deterrent is the element of surprise. While employees know they might be tested, they are never quite sure of when. Our regulation does not specify how often you must conduct random testing, but testing must be unannounced and spread reasonably throughout the year in a non-predictable pattern, e.g. monthly or quarterly. The DOT recommends that random selections and testing be performed at least quarterly. You should conduct testing throughout a testing period so employees cannot predict when they might be tested. Practices such as testing only at the beginning or end of a month or testing on the same date within test periods remove the element of surprise from testing. Small employers may experience challenges with spreading the testing dates throughout the calendar year. Therefore, it may be helpful for a small employer to join a C/TPA to be part of a larger, combined random testing pool.

### **20. When should I notify an employee selected for testing?**

Once a random draw has been made, the selection list must remain confidential until all of the employees are notified. You should discretely notify an employee selected for testing as close to the test time as possible so the employee has the least amount of time possible between

notification of testing and the actual collection process. A best practice is to document the notification, requiring the employee to sign it. A sample notification form is available on our web site at [www.faa.gov/go/drugabatement](http://www.faa.gov/go/drugabatement). If you document the notification, we recommend that you retain a copy with your random testing records.

## **21. When should an employee go to the collection site for testing?**

The employee must proceed immediately to the collection site upon notification of selection for testing. This helps to prevent an employee from attempting to flush his or her system of any drugs or metabolites by drinking quantities of fluids or using masking agents or other adulterants.

## **21. Should I notify the collection site that an employee will be arriving for testing?**

Yes. In order to minimize issues with the collection site, you should make contact to verify collection personnel are ready and available to conduct the necessary tests; the collector and/or breath alcohol technician is aware of the types of testing to conduct; the equipment is working; and the forms are available. Doing this before notifying the employee can help to ensure that the testing will begin with little to no delay.

According to 49 CFR § 40.14, you must ensure the following information is provided to the collector:

- (a) Full name of the employee being tested.
- (b) SSN or Employee ID Number.
- (c) Laboratory name and address (may be pre-printed on the CCF).
- (d) Employer name, address, phone and fax (may be pre-printed on the CCF).
- (e) DER information.
- (f) MRO information (may be pre-printed on the CCF).
- (g) The DOT agency which regulates the employee's safety-sensitive duties (may be pre-printed on the CCF).
- (h) Test reason (e.g., random).
- (i) Whether the test is to be observed or not.
- (j) C/TPA information (optional, and may be pre-printed on the CCF).
- (k) Specimen type to be collected (i.e., oral fluid or urine).

## **22. What should I do if an employee is notified to report for a random test and the test is not accomplished?**

Once the employee is notified to report for random testing and the test is not accomplished for any reason, the test cannot be rescheduled for a later time. For example, if the equipment at the collection site malfunctions and a test cannot be conducted, the employee's selection should be excused because the test is no longer unannounced. However, if the employee does not report for the test or the employee arrives at the testing site after it is closed, you must determine if the employee has refused the test. If you determine that the employee has refused the test, you must follow the procedure described in the response to Question #8 of this alert.



### **23. What are acceptable excuses for not testing a selected employee?**

You should make every effort to test employees during the testing period. However, if an employee selected for testing is unavailable due to extended leave (e.g., military leave, sick leave, furlough or vacation), the regulation allows you the option of excusing the employee or holding the random selection until the employee returns within the testing cycle or calendar year. It would not be acceptable to excuse an employee (e.g., flight crewmember or flight attendant) due to operational concerns such as a change in a flight schedule.

- (a) If you excuse the employee, you must document the reason and ensure that the missed test does not result in a shortfall for meeting your random testing rates. It may be necessary for you to initiate another random selection or make an extra selection during the next selection cycle.
- (b) If you hold the employee's name until he or she returns to work, you must ensure that he or she does not receive advance notice of random testing and that the testing is completed within the calendar year.

### **24. If I am the Designated Employer Representative (DER), can I excuse myself from testing?**

No. If you are a covered employee and the DER responsible for managing the random testing, you are immediately aware of your own selection when receiving the list of selected employees. Consequently, you must report for testing immediately. We recommend that you have a non-covered employee be responsible for the random selection list, e.g., an administrative employee, spouse or other uninterested person.

## **SPECIAL CONSIDERATIONS FOR RANDOM ALCOHOL TESTING**

### **25. When am I required to perform random alcohol tests?**

The regulations require you to conduct random alcohol testing while the employee is performing safety-sensitive functions, just before the employee is to perform safety-sensitive functions, or just after the employee has ceased performing such functions. Once notified, an employee must proceed immediately to the collection site. If the employee is performing a safety-sensitive function at the time of the notification, you should ensure that the employee ceases to perform the safety-sensitive function and proceeds to the collection site as soon as possible.

### **26. How would employees know when they must be in compliance with alcohol misuse requirements?**

Your alcohol educational materials must include sufficient information about the safety-sensitive functions and make it clear for what part of the workday employees are required to be in compliance with the alcohol misuse requirements. For some employers this will be relatively straightforward. In other instances, such as when covered work is infrequent or the employee

performs non safety-sensitive as well as safety-sensitive work, the information provided will need to be more specific in addressing this requirement.

## **27. When should we test flight crewmembers and flight attendants?**

For job categories where testing during the performance of a safety-sensitive function is not feasible (i.e., flight crewmember and flight attendant duties), the regulations require that the testing is conducted just before or just after the performance of duties.

## **RECORDKEEPING REQUIREMENTS**

### **28. What type of documentation should I maintain in support of the random selection process?**

You must retain documents related to the random selection process for two years. The documents should support your random selection policies and process, which include, but are not limited to, the following:

- Documentation of selection methodology (including a description of the computer program if applicable).
- List of safety-sensitive employees in the random pool prior to each selection.
- The random selection list each time selections are made.
- The employer's copy of the custody and control forms and alcohol testing forms from the completed random testing.
- The verified or confirmed test result, which must be maintained under other timeframes (e.g., non-negatives, failed alcohol tests, canceled test results, and refusal to test determinations).

It is important that you document everything in the entire random testing process, which may include:

- the number of employees selected each time;
- the names of each employee selected;
- the dates and times each employee is notified to report for testing;
- the dates and times of each employee's collection; and
- any reason an employee was not tested during the selection cycle, etc.

All of the records are considered part of the random selection process; therefore, you must retain them for two years and make them available for inspection by the FAA.

## **COMMON ERRORS IN RANDOM TESTING PROGRAMS**

### **29. What are some common errors in random testing programs?**

The following are some of the most common errors that occur in maintaining a random testing program:

- Failing to include all safety-sensitive employees in the random testing pool when each selection is made.
- Including non safety-sensitive employees in the random testing pool and conducting DOT tests when they are selected.
- Using an unacceptable random selection practice (e.g., selecting numbers from a hat, rolling dice, throwing darts).
- Failing to conduct random testing for selected employees.
- Conducting the wrong type of test (e.g., sending an employee for random alcohol testing and conducting a random drug test collection).
- Failure to notify the collection site of the reason for the test or verifying the collection site is ready and available prior to notifying the employee to report for testing.
- Over selecting or using alternates in the event that employees are not available, when they are available during the testing cycle.
- Failing to ensure the testing is unannounced and allowing employees to predict when selections and testing will be conducted.

During an FAA drug and alcohol compliance inspection, inspectors will check to ensure that each employee has an equal chance of being tested each time selections are made; that there is no way an employee can predict when the next random test will occur; and that the pool contains all safety-sensitive employees. If employees can avoid testing or do not have an equal chance of being tested, there is a fault in the random selection process.

## **ADDITIONAL RESOURCES**

### **30. Where can I find more information about random testing?**

If you have an active DOT/FAA-mandated drug and alcohol testing program, you must have knowledge of the following regulations:

- [14 CFR part 120](#) is the FAA’s regulation that defines the random drug and alcohol testing requirements that apply to aviation employers with an active program.
- [49 CFR part 40](#) is the DOT’s Procedures for Transportation Workplace Drug and Alcohol Testing Programs and describes the collection procedures for testing.

For more information, visit the FAA’s web site at [www.faa.gov/go/drugabatement](http://www.faa.gov/go/drugabatement) to review our [random testing video](#) and [Frequently Asked Questions](#), or use our [sample random testing notification form](#). We encourage you to [subscribe](#) for future updates!

You should also visit the DOT’s web site at [www.transportation.gov/odape](http://www.transportation.gov/odape) and review their “[Best Practices for DOT Random Drug and Alcohol Testing](#)” guide. We encourage you to subscribe to the [DOT’s list serve](#) for future updates!

### **31. Whom should I contact for additional questions or information?**

If you have any questions that are not answered in this Alert, please contact the Drug Abatement Division's Program Policy Branch directly at 202-267-8442 or [drugabatement@faa.gov](mailto:drugabatement@faa.gov).

**ATTACHMENT A**  
**CALCULATING THE NUMBER OF TESTS NEEDED TO MEET THE ANNUAL RATES**

Use the four steps below to determine the required number of drug or alcohol tests you must conduct to meet minimum annual requirements at any percentage rate, and to ensure the testing is evenly spaced:

**STEP 1: Just before each testing period, calculate the number of tests you must conduct for that testing period by multiplying the number of safety-sensitive employees in the random pool during the current testing period by the minimum annual percentage rate. Divide the result by the number of planned testing periods in the year.**

**STEP 2: Before the last testing period of the calendar year, calculate the average number of safety-sensitive employees in the random pool for the calendar year by adding the number in the random pool for each testing period (including the last) and dividing the result by the number of testing periods in the year.**

**STEP 3: Then, calculate the random testing requirement for the year by multiplying the average number of safety-sensitive employees in the random pool for the calendar year by the minimum annual percentage rate.**

**STEP 4: Determine the number of safety-sensitive employees you must test in the last testing period by subtracting the total number of random tests already conducted during the year from the number of random tests required for the entire year.**

Below are examples of how you would determine the number of covered employees to test each month to meet a minimum annual percentage rate of 25. This method allows you to account for changes in the number of safety-sensitive employees during the course of a calendar year (Example A) or if you began operations during the calendar year (Example B).

**Example A – The number of covered employees varies during the calendar year.**

In this example, you are making quarterly random selections with a minimum annual percentage rate of 25. You have the following number of employees in the random pool each quarter:

<b>Quarter</b>	<b>Employees in random pool</b>
1st quarter	23
2nd quarter	55
3rd quarter	40
4th quarter	27

**1. Before each of the first three draws, calculate the number of tests required for each testing period, as shown below:**

**1<sup>st</sup> Quarter**     $(23 \times 0.25) \div 4 = 2$  random test required (1.43 rounded up to 2)

**2<sup>nd</sup> Quarter**     $(55 \times 0.25) \div 4 = 4$  random tests required (3.43 rounded up to 4)

**3<sup>rd</sup> Quarter**  $(40 \times 0.25) \div 4 = 3$  random test required (2.5 rounded up to 3)

**2. Just before the final (4th quarter) draw, calculate the average number of employees in the random pool for the calendar year by adding the number of employees in the random pool for each testing period and dividing the total by the number of testing periods in the year:**

$23 + 55 + 40 + 27 = 145$  employees  
 $\div 4$  testing periods  
**= 36.25 average number of safety-sensitive employees in the random pool**

**3. Next, calculate the number of tests required for the calendar year by multiplying the average number of employees in the random pool for the calendar year by the minimum annual percentage rate:**

36.25 average number of employees  
 $\times 0.25$  minimum annual percentage rate  
**= 10 random tests required for the calendar year** (9.06 rounded up to 10)

**4. To determine the number of employees that are to be tested in Quarter 4, subtract the number of random tests already conducted from the total number of random tests required for the year:**

10 random tests required for the calendar year  
- 9 tests conducted in Quarters 1-3  
**= 1 random test required in Quarter 4 to meet the yearly minimum rate**

**Example B – Operations begin partway through the year.**

If you begin operations in the middle of a year, the number of tests you must conduct is prorated for the part of the year that you operate.

In this example, you begin operations in the 2<sup>nd</sup> quarter and makes random selections each quarter in the remaining calendar year. The minimum annual percentage rate is 25. The number of covered employees varies during the remaining part of the year:

<b>Quarter</b>	<b>Employees in random pool</b>
2 <sup>nd</sup> quarter	130
3 <sup>rd</sup> quarter	120
4 <sup>th</sup> quarter	150

**1. Before each of the first two draws, calculate the number of tests required for each testing period, as shown below:**

**2<sup>nd</sup> quarter**  $(130 \times 0.25) \div 3 = 11$  random tests required (10.8 rounded up to 11)  
**3<sup>rd</sup> quarter**  $(120 \times 0.25) \div 3 = 10$  random tests required

**2. Just before the final (4<sup>th</sup> quarter) draw, calculate the average number of employees in the random pool for the calendar year by adding the number of employees in the random pool for each testing period and dividing the total by the number of testing periods:**

$130 + 120 + 150 = 400$  employees  
 $\div 3$  testing periods  
**= 134 average number of safety-sensitive employees in the random pool**

**3. Next, calculate the number of tests that are required for the calendar year using:**

134 (average number of safety-sensitive employees in the random pool)  
 $\times 0.25$  (minimum annual percentage rate)  
**= 34 random tests required for a full calendar year (33.5 rounded up to 34)**

Since you only operated for 3 of the 4 quarters of the year, the number of required tests for that year is prorated:

34 random tests required for a full calendar year  
 $\times 0.75$  ( $\frac{3}{4}$  of the year)  
**= 26 random tests required for the prorated calendar year (25.5 rounded up to 26)**

**4. To determine the number of employees who are to be tested in the 4<sup>th</sup> quarter, subtract the total number of random tests already conducted from the prorated number of random tests required for the year:**

26 random tests required for the calendar year  
- 21 tests conducted in Quarters 2 and 3  
**= 5 random tests required in Quarter 4 to meet the yearly minimum rate**

**ATTACHMENT B**  
**ALTERNATE SELECTION METHOD FOR EMPLOYERS WITH 12 OR FEWER EMPLOYEES**

If you are an employer with 12 or fewer safety-sensitive employees, you may use an alternate selection technique to help maintain deterrence and avoid testing more employees than necessary to meet the regulatory requirements.

We recommend this method for employers with 12 or fewer employees because 25 percent of covered employees is currently the lowest minimum annual percentage rate that has been set for drug testing. At that rate, a company with 13 to 16 employees can meet the FAA requirement by selecting and testing at least one safety-sensitive employee from the random pool each quarter. Because an employer should round to the next higher number when computing the number of required tests, a company with 13 to 16 employees should test 4 persons in a calendar year or 1 each quarter. As an example, say you are an employer with 15 covered employees testing at 25 percent. You would need to test 3.75 employees, rounded up to 4. One test per quarter will meet the minimum required number of tests. See the math below:

$$\begin{aligned} 0.25 \times 15 &= 3.75 \text{ employees rounded to 4 to test} \\ 4 \text{ employees to test}/4 \text{ quarters} &= 1 \text{ employee to test per quarter} \end{aligned}$$

On the other hand, if you only have 7 covered employees and you must drug test at a 25 percent annual rate, you would need to test 1.75 or 2 employees ( $0.25 \times 7 = 1.75$ ) during a calendar year. Since this number is less than four, testing once per quarter would result in testing two more employees than necessary. Therefore, another method is needed to select employees while maintaining the desired level of deterrence (note that you may test more than the required rate, but you must meet the minimum required).

We recommend a two-step selection method that involves using a computer-based random number generator or a random number table to select the quarter or quarters in which testing will be required and then the selection of the employee(s) for testing during the appropriate quarter(s). It works like this:

At the beginning of the year, generate a random list of the four quarters. As an example, the selection list might look like this: **4,3,1,2**. If you have one to four employees, you would need to test one person during the year, assuming a 25 percent annual rate. In this example, no name would be drawn until the fourth quarter because that is the first number to come up. Since the employees would not know when a draw is being made, they would assume that there is a chance their name could be drawn at any time.

Using the same example, if you have five to eight covered employees, you would draw a name and test in each of the third and fourth quarters. If you have nine to twelve covered employees, you would draw a name and test one each of the first, third and fourth quarters.

As previously noted, the alcohol minimum annual percentage rate is currently 10. If you have up to ten employees, you must test one employee for alcohol each calendar year. You can meet this rate by conducting a second draw of quarters and testing in the quarter designated. In our example, the one alcohol test would be conducted in the fourth quarter. The alternative is to test the employee selected for drug testing for alcohol as well. If you must test more than one



employee for drugs during the year, then you should designate which quarter's selection will also be tested for alcohol at the beginning of the year. Designating the test period at the beginning of the year will eliminate any concern that you attempted to target a specific employee for testing.