

**Federal Aviation Administration
Office of Aerospace Medicine
Drug Abatement Division**

**GUIDANCE ALERT
FAA 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 of the FAA regulations contained in 14 Code of Federal Regulations (CFR) part 120, Sections 120.109(b) and 120.217(c). This Alert is not mandatory and does not constitute a regulation, but describes an acceptable means, but not the only means, of complying with the random testing requirements.

Part 120 applies to the following employers:

- a. All air carriers and operators certificated under part 119 of this chapter and authorized to conduct operations under part 121 and/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 conducting sightseeing operations as defined in 14 CFR § 91.147.
- d. Part 145 certificate holders who perform safety-sensitive functions and elect to conduct drug and alcohol testing under part 120.
- e. Contractors who perform safety-sensitive functions and elect to conduct drug and alcohol testing under part 120.

RANDOM TESTING REQUIREMENT

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

The primary purpose of unannounced random testing is to detect and deter illegal drug use and alcohol misuse. Another purpose of random testing is to remove employees engaged in such use from the performance of safety-sensitive functions. Random testing is a required component of your drug and alcohol testing program.

2. What do the random testing regulations require?

As an aviation employer, you are required to:

- 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 year; and,
- e. test enough employees to meet the "minimum annual percentage rate".

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. The annual rates are currently 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 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. Do canceled tests count toward meeting the annual random testing requirement?

No. Only specimens analyzed by your approved laboratory and verified by your medical review officer (MRO) can be counted toward meeting the annual testing requirement. 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 will 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.

7. 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.

8. If I contract with a consortium/third party administrator (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 because that is FMCSA's minimum annual testing rate. A C/TPA may also maintain a separate pool for each employer and apply the minimum annual percentage rate separately for each pool.

STRUCTURING THE RANDOM TESTING POOL

9. 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 than others 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. 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. 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.

10. 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, you should ensure the employee is removed from the random pool. Once an employee is hired for or transferred into a safety-sensitive function, you must add the employee to the random testing pool before the next random selection. Employees should be removed from the random testing pool while on leave for an extended period (e.g., 90 days or longer), and must be removed when assigned to work solely outside of the territory of the United States. Employees removed from the pool should be placed back into the random pool as soon as they return to performing safety-sensitive functions and prior to the next random selection.

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.

MAKING RANDOM SELECTIONS

11. 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.

12. 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.

RANDOM SELECTIONS AND SPECIAL GUIDANCE FOR SMALL OPERATORS

13. 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

14. 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 add dummy entries (names or numbers) to your random testing pool. Although it is up to each employer to determine whether they will use dummy numbers versus dummy names, we strongly advise that an employer use dummy numbers. Dummy numbers usually help to avoid any uncertainty about compliance with the regulation, making FAA inspections less burdensome for both an employer and the FAA. (Refer to Attachment B of this alert)

15. What other options do small operators have for conducting selections?

Another option is to randomly select the quarter or quarters 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.

16. Who should make random selections for small operators?

To assure fairness, someone other than a safety-sensitive employee subject to testing should make the random selections. Single owner-operators should use another person to conduct the random draw, (e.g., a C/TPA or administrative support staff.) A spouse or other family member is appropriate for this purpose.

17. 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

18. How often should random testing be done?

Our regulation does not specify how often you must conduct random testing, but testing must be spread reasonably throughout the year in a non-predictable pattern, and the timing must be unannounced. 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. The DOT recommends that random selections and testing be performed at least quarterly. Testing must be spaced reasonably throughout the year (e.g., monthly, 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.

19. 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 notify an employee selected for testing as close to the test time as possible. Employees should be given 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. If you document it, we recommend that you retain a copy for your records.

20. 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 ensure that it is ready and available for testing; 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. You must ensure the following information is provided to the urine specimen collector:

- (a) Full name of the employee being tested.
- (b) Employee's SSN or 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).

21. 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 should not be rescheduled for a later time. For example, if the equipment at the collection site malfunctions and a test cannot be conducted, the employee 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 #7 of this alert.

22. 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 a military leave, sick leave, furlough, vacation or travel, 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.

- (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. . 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.

- (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.

SPECIAL CONSIDERATIONS FOR RANDOM ALCOHOL TESTING

23. When am I required to perform random alcohol tests?

The regulations require that random alcohol testing is conducted 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.

24. 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.

25. 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

26. 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 related to the random selection process 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 form and alcohol testing forms from the random testing. This may or may not include the verified result, which is maintained under other timeframes (e.g., negatives and canceled test results, positive and refusals to submit to testing).

It is a best practice for you to document everything in the entire random testing process. This may include the numbers, names drawn, dates and times of notification, dates and times of collections, why a selected employee was not tested during a selection cycle, etc. All of the records are considered part of the random selection process; therefore, you must retain these records for two years.

COMMON ERRORS IN RANDOM TESTING PROGRAMS

27. 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 a safety-sensitive employee in the random testing pool.
- Having an unacceptable random selection practice, e.g., selecting numbers from a hat, rolling dice, throwing darts, etc.
- Failing to conduct random testing for selected employees.
- Conducting the wrong type of test, e.g., sending an employee for random alcohol testing and also conduct a random drug test collection.
- Including non safety-sensitive employees in the random testing pool and conducting DOT tests on them.
- Failure to notify the collection site of reason for test or verifying the collection site is ready and available for testing.
- Over selecting or using alternates in the event that employees are not available.
- Not ensuring 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

28. Are there any related documents I should look at?

- a. U.S. Department of Transportation (DOT) regulation: [49 CFR part 40](#) (Procedures for Transportation Workplace Drug and Alcohol Testing Programs). Part 40 prescribes the procedures that employers must follow when conducting drug and alcohol testing.
- b. DOT's guide entitled "[Best Practices for DOT Random Drug and Alcohol Testing](#)" provides best practices and helpful information about random testing.
- c. FAA's Drug and Alcohol Testing regulation: [14 CFR part 120](#). Part 120 describes FAA's requirements for random and other types of drug and alcohol testing.
- d. FAA's web site (www.faa.gov/go/drugabatement) provides extensive information, including a DER awareness video series and brochure, a link to Frequently Asked Questions about random testing and other topics.

29. Who can I contact for additional questions or information?

For additional questions and information contact:

FAA, Office of Aerospace Medicine
Drug Abatement Division (AAM-800)
800 Independence Avenue, SW
Washington, D.C. 20591

Phone: (202) 267-8442

Fax: (202) 267-5200

Email: drugabatement@faa.gov

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

The equations provided below can be used to determine the required number of drug or alcohol tests that must be conducted to meet minimum annual requirements at any percentage rate. They are also used to determine how many employees should be tested during each testing period to evenly space the testing. Below is a method of how an employer would determine the number of covered employees to be randomly tested each month to meet an 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). The formulas are easily adapted to allow for testing at different annual rates and different frequencies by substituting values for **A** or **P** below.

- 1. Just before each testing period, calculate the number of tests to be conducted that testing period, using:**

$$T = (C \times A)/P$$

Where

T is the number of tests required for the testing period,
C is the number of safety-sensitive employees in the random pool during the current testing period,
A is the minimum annual percentage rate,
And **P** is the number of planned testing periods if testing is conducted for a full calendar year.

(Note: Values of **T** should be rounded up if decimal is .5 or greater. **T** value should be rounded down if decimal is less than .5)

- 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 using:**

$$C_y = (C_1 + C_2 + C_3 + \dots + C_p) / P_y$$

Where

C_y is the average of the number of safety-sensitive employees in the random pool at the time of each testing period,
(C₁ + C₂ + C₃ + ... + C_p) is the number of safety-sensitive employees in the random pool during each testing period including the last testing period (**C_p**),
And **P_y** is the number of random selections to be conducted in the calendar year.

- 3. Then, calculate the random testing requirement for the year, using:**

$$T_Y = C_Y \times A$$

Where

T_Y is the number of random tests required for the calendar year.

(Note: Values of T should be rounded up if decimal is .5 or greater. T value should be rounded down if decimal is less than .5)

4. To determine the number to be tested in this last testing period, subtract the total number of random tests already conducted from the number of random tests required for the year, using:

$$T_L = T_Y - (T_1 + T_2 + T_3 + \dots + T_{L-1})$$

Where

T_L is the number of random tests required for the last testing period

And $(T_1 + T_2 + T_3 + \dots + T_{L-1})$ is the sum of the random tests conducted in the previous testing periods for the calendar year.

Example A – The number of covered employees varies during the calendar year. The employer will be making random selections each month. The minimum annual percentage rate is 25. The employer has the following number of employees in the random pool each month:

Month	Employees in random pool
January	50
February	55
March	55
April	130
May	140
June	150
July	160
August	170
September	180
October	100
November	50
December	50

1. Before each draw the employer calculates the number of tests required for each testing period as indicated below, where C = the number of safety-sensitive employees, T = the number of random tests required each month, $A = 0.25$ and $P = 12$, using:

$$T = (C \times A) / P$$

January $T = 50 \times (0.25 / 12) = 1.04$ or 1 random test required

February $T = 55 \times (0.25 / 12) = 1.14$ or 1 random test required

March $T = 55 \times (0.25 / 12) = 1.14$ or 1 random test required

April $T = 130 \times (0.25 / 12) = 2.71$ or 3 random tests required

May $T = 140 \times (0.25 / 12) = 2.92$ or 3 random tests required

June $T = 150 \times (0.25 / 12) = 3.13$ or 3 random tests required

July $T = 160 \times (0.25 / 12) = 3.33$ or 3 random tests required

August $T = 170 \times (0.25 / 12) = 3.54$ or 4 random tests required

September $T = 180 \times (0.25 / 12) = 3.75$ or 4 random tests required

October $T = 100 \times (0.25 / 12) = 2.08$ or 2 random tests required

November $T = 50 \times (0.25 / 12) = 1.04$ or 1 random tests required

2. Just before December draw, the employer calculates average number of employees in the random pool for the calendar year using the formulas below.

$$C_y = (C_1 + C_2 + C_3 + \dots + C_p) / P_y$$

$$\begin{aligned}
 C_y &= \text{Average number of safety-sensitive employees in the random pool} \\
 &= (50 + 55 + 55 + 130 + 140 + 150 + 160 + 170 + 180 + 100 + 50 + 50) / 12 \\
 &= 1290/12 \\
 &= 107.5
 \end{aligned}$$

3. The employer then calculates the number of tests that were required for the calendar year using:

$$T_y = C_y \times A$$

$$\begin{aligned}
 T_y &= \text{Number of random tests required for the calendar year} \\
 &= 107.5 \times 0.25 \\
 &= 26.88 \text{ or } 27
 \end{aligned}$$

4. To determine the number of employees that are to be tested in December, the employer subtracts the total number of random tests already conducted from the number of random tests required for the year using:

$$T_L = T_y - (T_1 + T_2 + T_3 + \dots + T_{L-1}).$$

$$\begin{aligned}
 T_L &= \text{Required random tests in December} \\
 &= 27 - (1 + 1 + 1 + 3 + 3 + 3 + 3 + 4 + 4 + 2 + 1) \\
 &= 27 - 26 \\
 &= 1
 \end{aligned}$$

Example B – Employer begins operations in April and makes random selections each month 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:

Month	Employees in random pool
April	130
May	140
June	150
July	160
August	170
September	180
October	100
November	50
December	50

If a company begins operations in the middle of a year, the number of tests that need to be conducted is calculated for the remainder of the year (i.e., prorated for the remainder of the year).

1. Before each draw the employer calculates the number of tests required for each testing period as indicated below (note: months where employer was not in operation are indicated with zeroes), where **C** is number of covered employees, **A** = 0.25 and **P** =12, using:

$$T = (C \times A)/P$$

April $T = 130 \times (0.25 / 12) = 2.71$ or 3 random tests required

May $T = 140 \times (0.25 / 12) = 2.92$ or 3 random tests required

June $T = 150 \times (0.25 / 12) = 3.13$ or 3 random tests required

July $T = 160 \times (0.25 / 12) = 3.33$ or 3 random tests required

August $T = 170 \times (0.25 / 12) = 3.54$ or 4 random tests required

September $T = 180 \times (0.25 / 12) = 3.75$ or 4 random tests required

October $T = 100 \times (0.25 / 12) = 2.08$ or 2 random tests required

November $T = 50 \times (0.25 / 12) = 1.04$ or 1 random tests required

2. Just before December draw, the employer calculates the average number of employees over the calendar year using the formula below. In December the employer had 50 covered employees.

$$C_y = (C_1 + C_2 + C_3 + \dots + C_p) / P_y$$

$$\begin{aligned}
C_y &= \text{Average number of safety-sensitive employees in the random pool} \\
&= (130 + 140 + 150 + 160 + 170 + 180 + 100 + 50 + 50) / 9 \\
&= 1130/9 \\
&= 125.5
\end{aligned}$$

3. The employer then calculates the number of tests that are required for the calendar year using:

$$T_y = C_y \times A$$

$$\begin{aligned}
T_y &= \text{Number of random tests required for the calendar year:} \\
&= 125.5 \times 0.25 \\
&= 31.4 \text{ or } 31
\end{aligned}$$

Since the employer was only in operation for 9 of the 12 months of the year, the number of required tests for that year is prorated using the formula:

$$T_p = T_y \times Q/12$$

Where

Q is the number of months the company is in operation during the calendar year.

$$\begin{aligned}
T_p &= \text{prorated number of random tests required for the calendar year} \\
&= 31 \times 9/12 \\
&= 23.6 \text{ or } 24
\end{aligned}$$

4. To determine the number of employees that are to be tested in December, the employer subtracts the total number of random tests already conducted from the prorated number of random tests required for the year, using:

$$T_L = T_p - (T_1 + T_2 + T_3 + \dots + T_{L-1}).$$

$$\begin{aligned}
T_L &= \text{required random tests in December:} \\
&= 24 - (3 + 3 + 3 + 3 + 4 + 4 + 2 + 1) \\
&= 1
\end{aligned}$$

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

Employers with 12 or fewer safety-sensitive employees can use a selection technique that will help maintain deterrence and avoid having to test more employees than necessary to meet the regulatory requirements.

12 is used, as a cutoff, 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.

For instance: 25 percent of 15 covered employees equal 3.75 employees rounded up to 4. One test per quarter will meet the minimum required number of tests.

$0.25 \times 15 = 3.75$ employees rounded to 4 to test

4 employees to test/4 quarters = 1 employee to test per quarter

A company with seven covered employees that is required to drug test at a 25 percent annual rate would have 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, some other method is needed to obtain the names of employees to test while maintaining the desired level of deterrence. **Note: you may test more than the required rate but you must meet the minimum required.**

The recommended selection method is a two step process 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).

At the beginning of the year the employer would generate a random list of the four quarters. As an example, the selection list might look like this: **4,3,1,2**. An employer with one to four employees would have 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, an employer with five to eight employees would draw a name and test in each of the third and fourth quarters. An employer with nine to 12 covered employees 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. In our examples, the employer with up to 10 employees would be required to test one employee for alcohol each calendar year. This rate may be met 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 to be tested for alcohol as well. If more than one employee will be tested for drugs during the year then the employer should designate, at the beginning of the year, which

quarter's selection will be tested for alcohol as well. Designating the test period at the beginning of the year will eliminate any concern that the employer is attempting to target an employee for testing.

Remember, if the employer is also a covered employee, then some person not in the random pool should conduct the draws and notify the persons selected for testing. A disinterested third party should be found to perform this function if the company has no non-covered employees. A spouse or other family member can be used to meet the requirement.

USE OF DUMMY ENTRIES

If a company has a small number of safety-sensitive employees, making it a small random pool, we have permitted employers to use dummy entries (such as names or numbers) in their random testing program. The use of dummy entries is not explicitly addressed by the rule language; however, the practice helps to 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.