

**Registration form**

**Fats, Oils and Grease (FOG) CEU Training Course \$50.00  
48 HOUR RUSH ORDER PROCESSING FEE ADDITIONAL \$50.00**

**Start and finish dates:** \_\_\_\_\_  
*You will have 90 days from this date in order to complete this course*

**List number of hours worked on assignment must match State requirement.** \_\_\_\_\_

**Name** \_\_\_\_\_ **Signature** \_\_\_\_\_  
*I have read and understood the disclaimer notice on page 2. Digitally sign XXX*

**Address:** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

**Email** \_\_\_\_\_ **Fax (\_\_\_\_)** \_\_\_\_\_

**Phone:**  
**Home (\_\_\_\_)** \_\_\_\_\_ **Work (\_\_\_\_)** \_\_\_\_\_

**Operator ID #** \_\_\_\_\_ **Exp. Date** \_\_\_\_\_

*Please circle/check which certification you are applying the course CEU's/PDH's.*

Wastewater Collection \_\_\_\_\_ Wastewater Treatment \_\_\_\_\_ Pretreatment \_\_\_\_\_

Onsite \_\_\_\_\_ Other \_\_\_\_\_

**Technical Learning College - PO Box 3060, Chino Valley, AZ 86323  
(928) 468-0665 Fax (928) 272-0747 Back-up Fax (928) 468-0675  
Toll Free (866) 557-1746 [info@tlch2o.com](mailto:info@tlch2o.com)**

**If you've paid on the Internet, please write your Customer #** \_\_\_\_\_

**Please invoice me, My PO #** \_\_\_\_\_

***We will stop mailing the certificate of completion so we need your e-mail address. We will e-mail the certificate to you, if no e-mail address; we will mail it to you.***

## **DISCLAIMER NOTICE**

I understand that it is my responsibility to ensure that this CEU course is either approved or accepted in my State for CEU credit. I understand State laws and rules change on a frequent basis and I believe this course is currently accepted in my State for CEU or contact hour credit, if it is not, I will not hold Technical Learning College responsible. I also understand that this type of study program deals with dangerous conditions and that I will not hold Technical Learning College, Technical Learning Consultants, Inc. (TLC) liable for any errors or omissions or advice contained in this CEU education training course or for any violation or injury caused by this CEU education training course material. I will call or contact TLC if I need help or assistance and double-check to ensure my registration page and assignment has been received and graded.

**State Approval Listing Link**, check to see if your State accepts or has pre-approved this course. Not all States are listed. Not all courses are listed. If the course is not accepted for CEU credit, we will give you the course free if you ask your State to accept it for credit.

**Professional Engineers;** Most states will accept our courses for credit but we do not officially list the States or Agencies. Please check your State for approval.

## **State Approval Listing URL...**

<http://www.abctlc.com/downloads/PDF/CEU%20State%20Approvals.pdf>

*You can obtain a printed version of the course manual from TLC for an additional \$129.95 plus shipping charges.*

## **AFFIDAVIT OF EXAM COMPLETION**

I affirm that I personally completed the entire text of the course. I also affirm that I completed the exam without assistance from any outside source. I understand that it is my responsibility to file or maintain my certificate of completion as required by the state or by the designation organization.

## **Grading Information**

In order to maintain the integrity of our courses we do not distribute test scores, percentages or questions missed. Our exams are based upon pass/fail criteria with the benchmark for successful completion set at 70%. Once you pass the exam, your record will reflect a successful completion and a certificate will be issued to you.

## **Rush Grading Service**

If you need this assignment graded and the results mailed to you within a 48-hour period, prepare to pay an additional rush service handling fee of \$50.00. This fee may not cover postage costs. If you need this service, simply write RUSH on the top of your Registration Form. We will place you in the front of the grading and processing line.

# FOG Answer Key

Name \_\_\_\_\_

Phone \_\_\_\_\_

Did you check with your State agency to ensure this course is accepted for credit?

You are responsible to ensure this course is accepted for credit. No refunds.  
Method of Course acceptance confirmation. Please fill this section

Website \_\_ Telephone Call\_\_ Email\_\_\_\_ Spoke to\_\_\_\_\_

Did you receive the approval number, if applicable? \_\_\_\_\_

What is the course approval number, if applicable? \_\_\_\_\_

*You can electronically complete this assignment in Adobe Acrobat DC.*

Please Circle, Bold, Underline or X, one answer per question. A **felt tipped pen** works best.

1. A B

2. A B

3. A B C D

4. A B C D

5. A B C D

6. A B

7. A B C D

8. A B

9. A B C D

10. A B

11. A B

12. A B C D

13. A B C D

14. A B C D

15. A B C D

16. A B

17. A B

18. A B C D

19. A B C D

20. A B C D

21. A B

22. A B C D

23. A B

24. A B C D

25. A B

26. A B C D

27. A B C D

28. A B C D

29. A B

30. A B C D

31. A B C D

32. A B C D

33. A B C D

34. A B

35. A B C D

36. A B C D

37. A B

38. A B C D

39. A B C D

40. A B C D

41. A B

42. A B C D

43. A B

44. A B

45. A B

46. A B

47. A B

48. A B C D

- 49. A B C D
- 50. A B C D
- 51. A B C D
- 52. A B C D
- 53. A B C D
- 54. A B C D
- 55. A B C D
- 56. A B C D

- 57. A B
- 58. A B
- 59. A B
- 60. A B
- 61. A B C D
- 62. A B C D
- 63. A B C D
- 64. A B C D

- 65. A B C D
- 66. A B C D
- 67. A B C D
- 68. A B
- 69. A B C D
- 70. A B C D

I understand that I am 100 percent responsible to ensure that TLC receives the Assignment and Registration Key and that it is accepted for credit by my State or Providence. I understand that TLC has a zero tolerance towards not following their rules, cheating or hostility towards staff or instructors. I need to complete the entire assignment for credit. There is no credit for partial assignment completion. My exam was proctored. I will contact TLC if I do not hear back from them within 2 days of assignment submission. I will forfeit my purchase costs and will not receive credit or a refund if I do not abide with TLC's rules. I will not hold TLC liable for any errors, injury, death or non-compliance with rules. I will abide with all federal and state rules and rules found on page 2.

**Please Sign that you understand and will abide with TLC's Rules.**

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**Signature**

***Please write down any questions you were not able to find the answers or that have errors.***

**FOG CEU TRAINING COURSE  
CUSTOMER SERVICE RESPONSE CARD**

NAME: \_\_\_\_\_

E-MAIL \_\_\_\_\_ PHONE \_\_\_\_\_

**PLEASE COMPLETE THIS FORM BY CIRCLING THE NUMBER OF THE APPROPRIATE ANSWER IN THE AREA BELOW.**

1. Please rate the difficulty of your course.  
Very Easy    0    1    2    3    4    5    Very Difficult
2. Please rate the difficulty of the testing process.  
Very Easy    0    1    2    3    4    5    Very Difficult
3. Please rate the subject matter on the exam to your actual field or work.  
Very Similar    0    1    2    3    4    5    Very Different
4. How did you hear about this Course? \_\_\_\_\_
5. What would you do to improve the Course?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

How about the price of the course?

Poor \_\_\_\_\_ Fair \_\_\_\_\_ Average \_\_\_\_\_ Good \_\_\_\_\_ Great \_\_\_\_\_

How was your customer service?

Poor \_\_\_\_\_ Fair \_\_\_\_\_ Average \_\_\_\_\_ Good \_\_\_\_\_ Great \_\_\_\_\_

Any other concerns or comments.  
\_\_\_\_\_  
\_\_\_\_\_

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### **REQUIRED DOCUMENTS**

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## FOG CEU Training Course Assignment

You'll have 90 days from the start of this assignment to successfully complete it with a score of 70%. If you should need any assistance, please call or e-mail the Student Service Department, please e-mail all concerns and the final test to TLC.

***You are expected to circle the correct answer on the enclosed answer key. Please include your name and address on your exam. The answer key is in the front. There are no intentional trick questions.***

You can e-mail or fax your Answer Key along with the Registration Form to TLC.

### **Controlling Fats, Oils, and Grease Discharges from Food Service Establishments**

**All of the answers must be in accordance to the Course Manual.**

1. Commercial food preparation establishments with inadequate grease controls is the chief method that FOG gets into our sewer collection system.

- A. True    B. False

2. Sewer backups and overflows will occur on streets, properties and even in customers' homes and/or businesses are caused because of improper disposal of fats, oils and grease.

- A. True    B. False

3. Ponds, streams or rivers will be contaminated due to \_\_\_\_\_ and will also impact the environment negatively.

- A. Sewer backup(s)    C. Management Practices (MPs)  
B. Overflow(s)    D. None of the above

### **Food Service Establishments (FSEs)**

4. Because of the amount of grease used in cooking, \_\_\_\_\_ are a significant source of fats, oil and grease (FOG).

- A. Sewer system infiltration    C. Food Service Establishments (FSEs)  
B. Customer(s) Inflow    D. None of the above

5. To assist improper handling and disposal of FOG \_\_\_\_\_ are generally developed to assist restaurants and other FSEs with instruction and compliance.

- A. CSO/SSO    C. POTW Commercial FOG Program  
B. POTWs    D. None of the above

6. Through implementation of Best Management Practices (BMPs), establishments should be able to significantly reduce the amount of FOG that goes down their drains. Best Management Practices (BMPs) will minimize back-ups and help business owners comply with the POTW's requirements.

- A. True    B. False

7. According to the text, the \_\_\_\_\_ can handle properly disposed wastes, but to work effectively, sewer systems need to be properly maintained, from the drain to the treatment plant.

- A. Vactor    C. POTW's sewer system  
B. Honey pumpers    D. None of the above

(S) means the answer may be plural or singular in nature.





**Keeping Fats, Oils, and Grease out of the Sewer System**

18. Manholes can overflow into parks, yards, streets, and storm drains, allowing FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public-health hazard and is an \_\_\_\_\_.

- A. EPA violation
- B. OSHA violation
- C. EPA NOV recommendation
- D. None of the above

19. As the FOG builds up, it restricts the flow in the pipe and can cause \_\_\_\_\_.

- A. Infiltration
- B. Overflow and clogging
- C. Exfiltration
- D. None of the above

**POTWs control methods for FOG discharges from FSEs**

20. There are many different devices, methods and procedures i.e., proper design, installation, and maintenance procedures are \_\_\_\_\_ for these devices to Control and capture the FOG.

- A. Suggested
- B. Normal
- C. Critical
- D. None of the above

21. It is best that FOG does not separate in a turbulent environment.

- A. True
- B. False

22. Grease interceptor/ collector devices shall be serviced at regular intervals and \_\_\_\_\_ must be diligent in providing proper maintenance and records.

- A. BMPs
- B. FSE
- C. Honey Pumpers
- D. None of the above

**Best Management Practices (BMPs)**

23. Reducing the FOG discharged into its sanitary sewer system is dependent upon the required maintenance frequency for interceptor/collector devices and the amount of FOG the facility generates as well as any best management practices (BMPs) that the establishment implements.

- A. True
- B. False

24. Because of required grease interceptor and trap maintenance frequency, an establishment that implements BMPs will realize a \_\_\_\_\_ benefit.

- A. Financial
- B. Odor reduction
- C. Interceptor/collector device(s)
- D. None of the above

**Residential and Commercial Guidelines**

25. The minor concern for Capacity, Management, Operations, and Maintenance (CMOM) is the improper disposal of fats, oil and grease (FOG).

- A. True
- B. False

26. To remediate the FOG problem, control authorities have developed \_\_\_\_\_ program aimed at eliminating FOG from the sewer system. FOG buildup in sewer lines has many harmful and costly effects.

- A. CSI
- B. Negligence
- C. An outreach
- D. None of the above

(S) means the answer may be plural or singular in nature.

27. \_\_\_\_\_ into homes create a health hazard as well as an unpleasant mess that can cost hundreds and sometimes thousands of dollars to clean up.
- A. Sewage backflow                      C. Sewer backups  
B. Trash and debris                      D. None of the above
28. According to the text, serious environmental and health conditions are created and can enter certain parts of the POTW, \_\_\_\_\_ can enter storm drains and flow directly into water bodies and onto beaches creating problems.
- A. Sewage backups                      C. FOG  
B. Trash and debris                      D. None of the above
29. Water and petroleum-based oils can also cause sewer-related problems
- A. True    B. False
30. Storm sewers need to be kept clean and car washing can often results in \_\_\_\_\_ entering the storm sewers.
- A. Sewage backups                      C. Soap and oil residue(s)  
B. Health hazard(s)                      D. None of the above
31. \_\_\_\_\_ enters into storm sewers from run-off from your sprinkler, watering hose, or from the rain can carry yard waste.
- A. Fertilizer            C. Petroleum-based oil(s)  
B. Negligence        D. None of the above
32. Littering can cause \_\_\_\_\_ to clog catch basins and storm drains.
- A. Sewage backups            C. Trash and debris  
B. Health hazard(s)            D. None of the above
33. One million gallons of water can be easily contaminated by simply pouring \_\_\_\_\_ down a storm drain could contaminate up to
- A. A gallon of oil            C. Dye  
B. FOG                      D. None of the above

**Using best management practices can:**

34. Expensive bills for plumbing and property repairs and losing revenue to emergency shutdowns caused by sewage backups and expensive bills for plumbing and property repairs can be lessened by proper sewer maintenance and compliance.
- A. True    B. False
35. \_\_\_\_\_ is the primary cause of sewer problems; this in turn causes the likelihood of lawsuits by nearby businesses over sewer problems.
- A. Backup            C. FOG Violation(s)  
B. Negligence        D. None of the above
36. Workers or the public can be exposed to \_\_\_\_\_ during a problem, it is best to reduce exposure, thus limiting some lawsuits.
- A. Backup            C. Raw sewage  
B. FOG buildup    D. None of the above

37. It is best that the customer increases the number of times they pump and clean their grease interceptors or traps if they are likely to present the system a problem.

- A. True B. False

38. In order to lessen the likelihood of surcharges from the sewer authority, or chargebacks for repairs to sewer pipes are most likely attributable to customer's \_\_\_\_\_.

- A. Health hazard(s) C. FOG  
B. Soap and oil residue(s) D. None of the above

**Industrial Uses (Fats, Oils, and Grease)**

**Proper Disposal Methods:**

Ways in which a customer can reduce the amounts of FOG that enters the sewer system is by doing the following:

39. Properly maintained and regularly cleaned \_\_\_\_\_, on a regular basis. (Usually every 6 months they should be pumped out).

- A. Grease interceptors or traps C. Tallow bins  
B. Infiltration row D. None of the above

40. It is best to \_\_\_\_\_ from dishes and pans into a garbage bag before placing them into your dishwasher or sink.

- A. First freeze the grease C. Scrape grease and food residue  
B. Wipe small amounts D. None of the above

41. Only dispose of fat and grease in an approved container or by an approved method.

- A. True B. False

42. \_\_\_\_\_ or motor oil at a recycling center.

- A. Pouring oil(s) C. Recycle used cooking  
B. Pour household grease D. None of the above

43. It is best to throw the hardened oil away on trash day by storing the oil in the original container.

- A. True B. False

44. Mix oils with unscented kitty litter, sawdust or sand to solidify the oil (Avoid scented or disinfectant types of kitty litter as they can react with the oil and cause a fire).

- A. True B. False

45. Use a paper towel to wipe small amounts of cooking oil, such as meat drippings, and throw the paper towel in the grease interceptor.

- A. True B. False

46. Install "No Grease" signs around sinks to remind employees to avoid dumping fry grease and other fat products down the drain when the POTW is watching.

- A. True B. False

47. After cooling and straining for foreign materials carefully try to pour the oil poured back and it is best to store oil in the original container.

- A. True B. False

## Inspection Checklists

48. Pretreatment programs are developing and using inspection checklists for both food service establishments and \_\_\_\_\_ to control FOG discharges.
- A. Customer service                      C. Pretreatment programs  
B. Municipal pretreatment inspectors    D. None of the above
49. EPA expects that blockages from FOG discharges will decrease as \_\_\_\_\_ incorporate FOG reduction activities into their Capacity, Management, Operations, and Maintenance (CMOM) program and daily practices.
- A. Customer service                      C. POTWs  
B. EPA    D. None of the above
50. \_\_\_\_\_ are comprehensive, dynamic, utility specific programs for better managing, operating and maintaining sanitary sewer collection systems, investigating capacity constrained areas of the collection system, and responding to SSOs.
- A. POTWs                                      C. Pretreatment Program regulations  
B. CMOM programs                          D. None of the above
51. \_\_\_\_\_ who adopt FOG reduction activities as part of their CMOM program activities are likely to reduce the occurrence of sewer overflows and improve their operations and customer service.
- A. Customer service                      C. Collection system owners or operators  
B. EPA    D. None of the above
52. EPA identified typical numeric local limits controlling oil and grease in the range of \_\_\_\_\_ mg/L to \_\_\_\_\_ mg/L with 100 mg/L as the most common reported numeric pretreatment limit.
- A. 500 to 750                                  C. 50 to 450  
B. 10 to 100                                    D. None of the above
53. Grease is problematic because it solidifies, reduces conveyance capacity, and blocks flow.”
- A. True    B. False
54. Controlling FOG discharges will help \_\_\_\_\_ prevent blockages that affect CSOs and SSOs, which cause public health and water quality problems.
- A. POTWs                                      C. Pretreatment Program regulations  
B. FSEs    D. None of the above
55. Controlling FOG discharges from FSEs is an essential element in controlling CSOs and SSOs and ensuring the proper operations for many \_\_\_\_\_.
- A. POTWs                                      C. Pretreatment Program regulations  
B. FSEs    D. None of the above
56. \_\_\_\_\_ provides regulatory tools and authority to state and local POTW pretreatment programs for eliminating pollutant discharges that cause interference at POTWs, including interference caused by the discharge of Fats, Oils, and Grease (FOG) from food service establishments (FSE).
- A. POTWs                                      C. The National Pretreatment Program  
B. FSEs    D. None of the above

57. The Pretreatment Program regulations at 40 CFR 403.5(b)(3) prohibit “solid or viscous pollutants in amounts which will cause obstruction” in the POTW and its collection system.  
A. True B. False

58. EPA’s Report to Congress on combined sewer overflows (CSOs) and sanitary sewer overflows (SSOs) identified that “grease from homes and industrial sources are the most common cause 97% of reported blockages.  
A. True B. False

**pH Section - Many Inspectors will check the pH of the FOG.**

59. Measurement of pH for aqueous solutions can be done with a glass electrode and a pH meter, or using indicators like strip test paper.  
A. True B. False

60. In chemistry, pH is a measure of the acidity or basicity of an aqueous solution. Solutions with a pH greater than 7 are said to be acidic and solutions with a pH less than 7 are basic or alkaline.  
A. True B. False

61. Pure water has a pH very close to?  
A. 7 C. 7.7  
B. 7.5 D. None of the above

62. Mathematically, pH is the negative logarithm of the activity of the (solvated) hydronium ion, more often expressed as the measure of the?  
A. Electron concentration C. Hydronium ion concentration  
B. Alkalinity concentration D. None of the above

63. Which of the following terms for aqueous solutions can be done with a glass electrode and a pH meter, or using indicators?  
A. Primary sampling C. Determining values  
B. Measurement of pH D. None of the above

64. The pH scale is logarithmic and therefore pH is?  
A. An universal indicator C. An excess of alkaline earth metal concentrations  
B. A dimensionless quantity D. None of the above

65. pH is defined as the decimal logarithm of the reciprocal of the \_\_\_\_\_,  $a_{H^+}$ , in a solution.  
A. Hydrogen ion activity C. Brønsted–Lowry acid–base theory  
B. Acid-base behavior D. None of the above

66. Which of the following terms may be used to measure pH, by making use of the fact that their color changes with pH?  
A. Indicators C. A set of non-linear simultaneous equations  
B. Spectrophotometer D. None of the above

67. Which of the following terms of the color of a test solution with a standard color chart provides a means to measure pH accurate to the nearest whole number?  
A. Universal indicator C. Visual comparison  
B. Colorwheel measurement D. None of the above

68. The pH scale is traceable to a set of standard solutions whose pH is established by US EPA.

- A. True                      B. False

69. More precise measurements are possible if the color is measured spectrophotometrically, using a?

- A. Universal indicator                                      C. Set of non-linear simultaneous equations  
B. Colorimeter or spectrophotometer              D. None of the above

70. Since pH is a logarithmic scale, a difference of one pH unit is equivalent to \_\_\_\_\_ difference in hydrogen ion concentration

- A. 1                      C. 10  
B. .1                      D. None of the above

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