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 I have read and	Signature
Address: _	
City	StateZip
Email	Fax ()
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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 <u>info@tlch2o.com</u>
lf you've	paid on the Internet, please write your Customer #
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	top mailing the certificate of completion so we need your e-mail address. We If the certificate to you, if no e-mail address; we will mail it to you.

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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.

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CERTIFICATION OF COURSE PROCTOR

Technical Learning College requires that our students who takes a correspondence or home study program course must pass a proctored course reading, quiz and final examination. The proctor must complete and provide to the school a certification form approved by the commission for each examination administered by the proctor.

Instructions. When a student completes the course work, fill out the blanks in this section and provide the form to the proctor with the examination.

Name of Course:_____

Name of Licensee:_____

Instructions to Proctor. After an examination is administered, complete and return this certification and examination to the school in a sealed exam packet or in pdf format.

I certify that:

- 1. I am a disinterested third party in the administration of this examination. I am not related by blood, marriage or any other relationship to the licensee which would influence me from properly administering the examination.
- 2. The licensee showed me positive photo identification prior to completing the examination.
- 3. The enclosed examination was administered under my supervision on ______. The licensee received no assistance and had no access to books, notes or reference material.
- 4. I have not permitted the examination to be compromised, copied, or recorded in any way or by any method.
- 5. Provide an estimate of the amount of time the student took to complete the assignment.

Time to complete the entire course and final exam.

Notation of any problem or concerns:

Name and Telephone of Proctor (please print):

Signature of Proctor

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	17. A B	33. A B C D
2. A B	18. A B C D	34. A B
3. ABCD	19. A B C D	35. A B C D
4. ABCD	20. A B C D	36. A B C D
5. ABCD	21. A B	37. A B
6. A B	22. A B C D	38. A B C D
7. ABCD	23. A B	39. A B C D
8. A B	24. A B C D	40. A B C D
9. ABCD	25. A B	41. A B
10.A B	26. A B C D	42. A B C D
11.A B	27. A B C D	43. A B
12. A B C D	28. A B C D	44. A B
13.A B C D	29. A B	45. A B
14. A B C D	30. A B C D	46. A B
15.A B C D	31. A B C D	47. A B
16.A B	32. A B C D	48. A B C D
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49. A B C D	57. A B	65. A B C D
50. A B C D	58. A B	66. A B C D
51. A B C D	59. A B	67. A B C D
52. A B C D	60. A B	68. A B
53. A B C D	61. A B C D	69. A B C D
54. A B C D	62. A B C D	70. A B C D
55. A B C D	63. A B C D	
56. A B C D	64. A B C D	
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Please Sign that you understand and will abide with TLC's Rules.

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

N/	AME:										
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2.	Please rate the Very Easy	difficulty c 0 1	of the tes 2	ting pro 3	cess. 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 hea	ar about t	his Cours	se?							
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Po	oor Fair	Average	e Go	ood	Gre	at					
Aı	ny other concerns	or comm	ents.								

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If you are unable to scan and email, please fax these to TLC, if you fax, call to confirm that we received your paperwork. **(928) 468-0675**

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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 infiltrationB. Customer(s) InflowC. Food Service Establishments (FSEs)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 B. POTWs

C. POTW Commercial FOG Program 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
- A. Vactor C. POTW's sewer sys B. Honey pumpers D. None of the above

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

8. Because our sewer system is fragile, the sewer system cannot handle liquid waste, and therefore should not be put down the drain.

C. POTW's recommendations

A. True B. False

9. Proper sewer disposal by commercial establishments is required by ______.

A. Law

B. Best management advice (BMAs) D. None of the above

Environmental problem with FOG sewers

10. Grease balls are formed by various solids that enters the sewer system eventually solidifies. The various sizes of these grease balls can range in size from molecules to grapes and must be removed periodically.

A. True B. False

11. Customer(s) complaints about the maintenance of the collection systems and/or treatment plants is the best method handle or treat FOG effectively.

A. True B. False

12. The repair or replacement of their damaged property caused by FOG creating _

can also cost customers thousands of dollars for the repair or replacement of their damaged property.

- A. Infiltration C. Exfiltration
- B. Sewer backup(s) D. None of the above

Controlling FOG discharges

13. According to the text, FOG wastes are generated at ______ as byproducts from food preparation activities.

A. FSEs C. Customer service

B. POTWs D. None of the above

14. There are generally two FOG captured on-site broad categories:

A. Yellow grease and grease trap waste C. Soft and Hard

B. White grease and grease waste D. None of the above

15. Food service establishments can adopt a variety of ______or install interceptor/collector devices to control and capture the FOG material before discharge to the collection system.

- A. Customer service C. Best management practices
- B. POTWs Rules D. None of the above

16. Instead of discharging yellow grease to POTWs, food service establishments usually accumulate this grease for pick up by consolidation service companies for re-sale or re-use in the manufacture of tallow, animal feed supplements, bio-fuels, or other products.

A. True B. False

17. The POTW collection system may require that certain food service establishments install interceptor/collector devices in order to accumulate grease onsite and prevent it from entering the POTW collection system.

A. True B. False

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

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

- A. Infiltration C. Exfiltration
- B. Overflow and clogging 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 C. Critical

B. Normal 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 C. Honey Pumpers
- B. FSE 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 C. Interceptor/collector device(s)
- B. Odor reduction 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 C. An outreach
- B. Negligence D. None of the above

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

- into homes create a health hazard as well as an unpleasant mess that can 27. cost hundreds and sometimes thousands of dollars to clean up.

- A. Sewage backflowC. Sewer backupsB. Trash and debrisD. None of the abo 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.

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

33. One million gallons of water can be easily contaminated by simply poring 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

40. It is best to _______from dishes and pans into a garbage bag before placing them

D. None of the above

into your dishwasher or sink.

A. First freeze the greaseC. Scrape grease and food residueB. Wipe small amountsD. None of the above

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

A. True B. False

____ or motor oil at a recycling center.

42. _____ A. Pouring oil(s)

A. Pouring oil(s)C. Recycle used cookingB. Pour household greaseD. 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

- 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 concentrationB. Alkalinity concentrationC. Hydronium ion concentrationD. 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
- n. Furnary sampling
 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
- D. None of the above B. A dimensionless quantity

65. pH is defined as the decimal logarithm of the reciprocal of the $, a_{\rm H}+, in a$ 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 of spectrophotometer D. None of the above

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

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