

**Registration form**

**Pretreatment 202 CEU Training Course \$200.00  
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. \_\_\_\_\_

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**Please circle/check which certification you are applying the course CEU's.**  
Wastewater Treatment \_\_\_\_\_ Other \_\_\_\_\_

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## **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.

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# Pretreatment 202 CEU Course Answer Key

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*Please use Adobe Acrobat DC to complete this answer Key*

*Please circle, underline, bold or X only one correct answer*

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*Please e-mail or fax this survey along with your final exam*

**PRETREATMENT 202 CEU TRAINING COURSE  
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**PLEASE COMPLETE THIS FORM BY CIRCLING THE NUMBER OF THE APPROPRIATE ANSWER IN THE AREA BELOW.**

Please rate the difficulty of your course.

Very Easy 0 1 2 3 4 5 Very Difficult

Please rate the difficulty of the testing process.

Very Easy 0 1 2 3 4 5 Very Difficult

Please rate the subject matter on the exam to your actual field or work.

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How did you hear about this Course? \_\_\_\_\_

What would you do to improve the Course?

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How about the price of the course? Poor \_\_ Fair\_\_ Average\_\_ Good \_\_ Great \_\_

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Any other concerns or comments.

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## **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. Thank you...

*This course contains general EPA's CWA federal rule requirements. Please be aware that each state implements wastewater/ sampling procedures/safety/ environmental / pretreatment that may be more stringent than EPA's regulations.*

*Check with your state environmental/health agency for more information. These rules change frequently and are often difficult to interpret and follow. Be careful to be in full-compliance and do not follow this course for proper compliance.*

## Pretreatment 202 CEU Training Assignment

***The Assignment (Exam) is also available in Word on the Internet for your Convenience, please visit [www.ABCTLTC.com](http://www.ABCTLTC.com) and download the assignment and e-mail it back to TLC.***

You will have 90 days from the start of this course to complete in order to receive your Professional Development Hours (**PDHs**) or Continuing Education Unit (**CEU**). A score of 70 % is necessary to pass this course. We prefer if this exam is proctored. No intentional trick questions. If you should need any assistance, please email all concerns and the completed manual to [info@tlch2o.com](mailto:info@tlch2o.com).

We would prefer that you utilize the enclosed answer sheet in the front, but if you are unable to do so, type out your own answer key. Please include your name and address on your Answer Key and make copy for yourself. You can e-mail or fax your Answer Key along with the Registration Form to TLC. **(S) Means answer may be plural or singular. Multiple Choice Section, One answer per question and please use the answer key.**

### Topic -1 Pretreatment Overview

1. Which of the following terms are somewhat general, national standards are pertinent to all industrial users to a POTW, regardless of whether or not the POTW has an approved pretreatment program or the industrial user has been issued a permit?

- A. Industrial point sources
- B. Most stringent controls
- C. NSPS
- D. Prohibited discharge standards
- E. Control mechanisms for indirect dischargers
- F. None of the Above

2. Which of the following terms are limitations on pollutant discharges to publicly owned treatment works (POTWs), declared by the EPA in accordance with Section 307 of the Clean Water Act that apply to specific process wastewaters of particular industrial categories?

- A. Effluent reduction
- B. New indirect dischargers
- C. NSPS
- D. Categorical Pretreatment Standards
- E. Pretreatment Standards for New Sources
- F. None of the Above

3. Which of the following terms are national wastewater discharge standards that are developed by EPA on an industry-by-industry basis. These are technology-based regulations, and are intended to represent the greatest pollutant decreases that are economically possible for an industry?

- A. Effluent reduction
- B. New indirect dischargers
- C. Effluent Guidelines
- D. Numeric limitations and standards
- E. Pretreatment Standards for New Sources
- F. None of the Above

4. The standards for direct dischargers are assimilated into National Pollutant Discharge Elimination System (NPDES) permits issued by States and EPA regional offices, and permits or other control mechanisms for\_\_\_\_\_.

- A. Industrial point sources
- B. Most stringent controls
- C. Indirect dischargers
- D. Somewhat general, national standards
- E. Control mechanisms for indirect dischargers
- F. None of the Above

5. Which of the following terms are defined at CWA section 304(b)(4), addresses conventional pollutants from existing industrial point sources. In addition to considering the other factors specified in section 304(b)(4)(B), EPA establishes BCT limitations after consideration of a two part "cost-reasonableness" test?

- A. Industrial point sources
- B. Most stringent controls
- C. NSPS
- D. Best Conventional Pollutant Control Technology
- E. Control mechanisms for indirect dischargers
- F. None of the Above

6. Which of the following terms are defined at CWA section 306, apply to direct dischargers. NSPS reflect effluent decreases that are possible based on the "best available demonstrated control technology."

- A. Effluent reduction
- B. New indirect dischargers
- C. POTW
- D. New Source Performance Standards
- E. Pretreatment Standards for New Sources
- F. None of the Above

7. New sources have the opportunity to install the best and most efficient production processes and \_\_\_\_\_. As a result, NSPS should represent the most stringent controls attainable through the application of the best available demonstrated control technology for all pollutants (i.e., conventional, non-conventional, and priority pollutants).

- A. Industrial point sources
- B. Most stringent controls
- C. Control mechanisms
- D. Somewhat general, national standards
- E. Wastewater treatment technologies
- F. None of the Above

8. In establishing NSPS, EPA is directed to take into consideration the cost of achieving the effluent reduction and any \_\_\_\_\_ and energy requirements.

- A. Effluent reduction
- B. New indirect dischargers
- C. NSPS
- D. Non-water quality environmental impacts
- E. Pretreatment Standards for New Sources
- F. None of the Above

9. Pretreatment Standards for New Sources is defined at CWA section 307(c). PSNS are national, uniform, technology-based standards that apply to dischargers to publicly owned treatment works (POTWs) from \_\_\_\_\_ (i.e., indirect dischargers).

- A. Industrial point sources
- B. Most stringent controls
- C. Specific industrial categories
- D. Somewhat general, national standards
- E. Control mechanisms for indirect dischargers
- F. None of the Above

10. Best Management Practices (BMPS) are defined as a \_\_\_\_\_ used in place of, or in conjunction with effluent limitations, to prevent or control the discharge of pollutants. BMPs may include a schedule of activities, prohibition of practices, maintenance procedure, or other management practice.

- A. Industrial point sources
- B. Most stringent controls
- C. NSPS
- D. Permit condition
- E. Control mechanisms for indirect dischargers
- F. None of the Above

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

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

- A. Sewer system infiltration
- B. POTW's requirement(s)
- C. Customer(s) Inflow
- D. Septic Tanks
- E. Food Service Establishments (FSEs)
- F. None of the Above

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

- A. CSO/SSO
- B. POTWs
- C. Customer service
- D. POTW Commercial FOG Program
- E. Capacity, Management, Operations, and Maintenance
- F. None of the Above

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

- A. True
- B. False

14. 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
- B. POTW's requirement(s)
- C. POTW's sewer system
- D. Most management practices (MMPs)
- E. Honey pumpers
- F. None of the Above

15. Because our sewer collection system is fragile, \_\_\_\_\_ is an example of a waste that the sewer system cannot handle, and therefore should not be put down the drain.

- A. Liquid
- B. Grinder pump extract
- C. Overflow(s)
- D. Grease
- E. Solids
- F. None of the Above

16. All types of businesses and individuals to need to be responsible in maintaining the POTW system because repeated repairs are disruptive to residences and businesses alike. Proper sewer disposal by commercial establishments is required by \_\_\_\_\_.

- A. Law
- B. POTW's recommendations
- C. Sewer system
- D. Best management advice (BMAs)
- E. Food Service Establishments (FSEs)
- F. None of the Above

### **Environmental problem with FOG sewers**

17. Grease balls are formed by \_\_\_\_\_ that enters the sewer collection system eventually solidifies. The various sizes of these grease balls can range in size from marbles to the size of cantaloupes and must be removed periodically.

- A. FOG
- B. Sewer backup(s)
- C. Overflow(s)
- D. Solids
- E. Liquid
- F. None of the Above

18. \_\_\_\_\_ on the maintenance of the collection systems and/or treatment plants that in turn lead to higher customer rates are because the sewer system is unable to handle or treat these substances effectively.

- A. Customer(s) complaints
- B. POTW's recommendations
- C. Administrative controls
- D. Least management practices (LMPs)
- E. Food Service Establishments (FSEs)
- F. None of the Above

19. The repair or replacement of damaged property caused by FOG creating \_\_\_\_\_ can also cost customers thousands of dollars for the repair or replacement of their damaged property.
- A. Infiltration
  - B. Sewer backup(s)
  - C. Overflow(s)
  - D. Jump joints
  - E. Hydraulic under conditions
  - F. None of the Above

### Controlling FOG discharges

20. According to the text, FOG wastes and damages are generated at \_\_\_\_\_ as byproducts from food preparation activities.

- A. CSO/SSO
- B. POTWs
- C. FSEs
- D. Customer service
- E. Capacity, Management, Operations, and Maintenance (CMOM)
- F. None of the Above

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

- A. Yellow grease and grease trap waste
- B. White grease and grease trap waste
- C. Overflow(s) and Interflow
- D. Soft and Hard
- E. Threat and Non-threat
- F. None of the Above

22. Food service establishment(s) collect and separate grease and from this procedure, \_\_\_\_\_ is derived from used cooking oil and waste greases.

- A. Interceptor grease
- B. Interceptor/collector device(s)
- C. Inflow
- D. Tallow
- E. Yellow grease
- F. None of the Above

23. Food service establishment(s) or FSE can adopt a variety of best management practices or install interceptor/collector devices to control and capture the \_\_\_\_\_ before discharge to the POTW collection system.

- A. BMPs
- B. Grease interceptor and trap
- C. FOG
- D. Interceptor/collector device(s)
- E. FOG material
- F. None of the Above

24. The POTW collection system(s) will require that certain food service establishments install interceptor/collector devices (e.g., grease traps) in order to accumulate grease on-site and prevent it from entering the \_\_\_\_\_

- A. Kitchen drain(s)
- B. Interceptor/collector device(s)
- C. BMPs
- D. POTW collection system(s)
- E. Food service establishment(s) or FSE
- F. None of the Above

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

25. 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 EPA violation. FOG discharged into septic systems and drain fields can cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

- A. True
- B. False

26. \_\_\_\_\_ will back up into homes and commercial businesses, resulting in high costs for cleanup and restoration. This is general because FOG is poured down kitchen drains accumulates inside sewer pipes. As the FOG builds up, it restricts the flow in the pipe and can cause this overflow and clogging.

- A. Dye
- B. Interceptor/collector device(s)
- C. Camera
- D. Smoke
- E. Untreated wastewater
- F. None of the Above

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

27. There are many different devices, methods and procedures i.e., Proper design, installation, and maintenance procedures are critical for these devices to\_\_\_\_\_.

- A. Control and capture the Yard waste
- B. Control and capture the FOG
- C. Control and capture the Water
- D. Petroleum-based oil(s)
- E. Your negligence
- F. None of the Above

28. FOG must be able to cool and separate in a non-turbulent environment, therefore. \_\_\_\_\_ must be designed and sized appropriately.

- A. Kitchen drain(s)
- B. Interceptor/collector device(s)
- C. BMPs
- D. POTW collection system(s)
- E. Food service establishment(s) or FSE
- F. None of the Above

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

- A. BMPs
- B. Service crews
- C. Employees
- D. Honey Pumps
- E. FSE
- F. None of the Above

**Best Management Practices (BMPs)**

30. The amount of FOG a business generates as well as any best management practices (BMPs) that the establishment implements to reduce the FOG discharged into its sanitary sewer system is dependent upon the required maintenance frequency for interceptor/collector devices depends upon.

- A. True
- B. False

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

- A. Financial
- B. Grease interceptor and trap
- C. FOG
- D. Interceptor/collector device(s)
- E. Odor reduction
- F. None of the Above

**Using best management practices can:**

32. Expensive repair bills for plumbing and \_\_\_\_\_ 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. Sewage backups
- B. Trash and debris
- C. Property repairs
- D. FOG
- E. Health hazard(s)
- F. None of the Above

33. \_\_\_\_\_ is the primary cause of sewer problems; this in turn causes the likelihood of lawsuits by nearby businesses over sewer problems.

- A. Backup            D. Crime
- B. Violation(s)    E. Negligence
- C. Problem        F. None of the Above

34. Operators, worker or the public can be exposed to \_\_\_\_\_ during a problem, it is best to Reduce exposure, thus limiting some lawsuits.

- A. Backup            D. Crime
- B. FOG buildup    E. Negligence
- C. Raw sewage    F. None of the Above

35. It is best that the customer increases the number of times you have to pump and clean their \_\_\_\_\_.

- A. Pipes            D. Grease interceptors or traps
- B. FOG buildup    E. Sewer
- C. Self            F. None of the Above

36. In order to lessen the likelihood of surcharges from your local sewer authority, or chargebacks for repairs to sewer pipes attributable to customer's \_\_\_\_\_.

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

## Topic 2 - Pretreatment Program Development

37. EPA's General Pretreatment Regulations require POTWs to utilize a \_\_\_\_\_ that ensures that SIUs meet all pertinent Pretreatment Standards and Requirements.

- A. Permit modification            D. Pretreatment requirements
- B. Permit issuance process        E. Permit conditions to determine compliance
- C. Control mechanism            F. None of the Above

38. At the discretion of the \_\_\_\_\_, the control may include the use of general control mechanisms (general permits) and individual control mechanisms (individual permits).

- A. POTW            D. Mechanism for the Control Authority
- B. Industrial User        E. General Pretreatment Regulation(s)
- C. Permit condition(s)    F. None of the Above

39. Before implementing general control mechanisms, the \_\_\_\_\_ must ensure that it has the legal authority to implement general control mechanisms.

- A. Industrial User(s)        D. An extra jurisdictional IU
- B. POTW            E. Control Authority
- C. SIU            F. None of the Above

40. Even though the federal regulations state that POTWs can use permits, orders, or other similar means to control \_\_\_\_\_ discharges, it is EPA's experience that the permit is the most effective means of ensuring that industrial users are aware of all pertinent pretreatment requirements.

- A. Industrial User(s)        D. An extra jurisdictional IU
- B. POTW            E. Control Authority
- C. SIU's            F. None of the Above



41. Which of the following terms allow for the systematic assimilation of all pertinent requirements and, if properly structured, can greatly facilitate enforcement if noncompliance occurs?
- A. Permit modification
  - B. Permit issuance process
  - C. Permits
  - D. Pretreatment requirements
  - E. Permit conditions to determine compliance
  - F. None of the Above

42. Regardless of the type of control mechanism, the \_\_\_\_\_ uses, each control mechanism issued to an SIU must contain all the minimum federal requirements. Throughout this document, the terms permit and control mechanism are used interchangeably.
- A. Approved POTW program(s)
  - B. Industrial User
  - C. Permit condition(s)
  - D. POTW
  - E. General Pretreatment Regulation(s)
  - F. None of the Above

### Individual Permits or General Control Mechanisms

43. POTWs are required to issue control mechanisms to SIUs [as defined at 40 CFR 403.3(v)(1)]. Individual permits or general control mechanisms authorize the discharge of wastewater to a \_\_\_\_\_ upon condition that the discharger complies with the permit terms.
- A. POTW
  - B. Industrial User
  - C. Permit condition(s)
  - D. Mechanism for the Control Authority
  - E. General Pretreatment Regulation(s)
  - F. None of the Above

44. An SIU permit is effective for only a limited period and should be revocable by the issuing authority at any time for just cause. In addition, the \_\_\_\_\_ will typically include a provision that forbids the discharge of industrial wastewater from an SIU without a current Industrial User permit.
- A. Industrial User(s)
  - B. POTW
  - C. SIU
  - D. An extra jurisdictional IU
  - E. Control Authority's legal authority
  - F. None of the Above

45. An individual permit or general control mechanism should describe, in a single document, all the duties and obligations of the permittee including all pertinent \_\_\_\_\_ and Requirements.
- A. Permit modification
  - B. Permit issuance process
  - C. A permit
  - D. Pretreatment Standards
  - E. Permit conditions to determine compliance
  - F. None of the Above

46. In many \_\_\_\_\_, permittees are given an opportunity to review and comment on draft permits or challenge permit terms administratively within a specified period.
- A. Approved POTW program(s)
  - B. Industrial User permit programs
  - C. Permit condition(s)
  - D. Applicable BMPs
  - E. General Pretreatment Regulation(s)
  - F. None of the Above

47. If the \_\_\_\_\_ is not challenged upon issuance, or if all opportunities for challenge of the final permit are exhausted, in most states, it becomes binding on the permittee.
- A. Permit modification
  - B. Permit issuance process
  - C. Permit
  - D. Pretreatment requirements
  - E. Permit conditions to determine compliance
  - F. None of the Above

48. Which of the following terms is enforceable simply by proving that the permit included a certain term and that the term was violated?

- A. Permit modification
- B. Permit issuance process
- C. Any violation of the permit
- D. Pretreatment requirements
- E. Permit conditions to determine compliance
- F. None of the Above

49. The POTW should determine the appropriate administrative appeals procedures as allowed under their \_\_\_\_\_.

- A. Industrial User(s)
- B. POTW
- C. SIU's
- D. State and local law
- E. Control Authority
- F. None of the Above

### **POTW Pretreatment Program Requirements**

50. The actual requirement for a POTW to develop and implement a local pretreatment program is a condition of its \_\_\_\_\_.

- A. NPDES permit
- B. Industrial User
- C. Permit condition(s)
- D. Mechanism for the Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

51. Once the Approval Authority determines that a POTW needs a pretreatment program, the \_\_\_\_\_ is modified to require development of a local program and submission of the program to the Approval Authority for review and approval.

- A. Permit modification
- B. Permit issuance process
- C. POTW's NPDES permit
- D. Pretreatment requirements
- E. Permit conditions to determine compliance
- F. None of the Above

52. Pretreatment program submissions found to be complete proceed to the public notice process, Public Participation and POTW Reporting. Upon program approval, the Approval Authority is responsible for modifying the \_\_\_\_\_ to require implementation of the approved pretreatment program.

- A. Permit modification
- B. Permit issuance process
- C. POTW's NPDES permit
- D. Pretreatment requirements
- E. Permit conditions to determine compliance
- F. None of the Above

53. Once approved, the Approval Authority oversees POTW pretreatment program implementation via receiving \_\_\_\_\_ and conducting periodic audits and inspections.

- A. Permit modification
- B. Permit issuance process
- C. Annual reports
- D. Pretreatment requirements
- E. Permit conditions to determine compliance
- F. None of the Above

### **Who Issues Permits?**

54. POTWs with approved pretreatment programs are required to issue Industrial User permits or other authorized control mechanisms to their Industrial Users. Such POTWs are Control Authorities in the \_\_\_\_\_.

- A. Approved POTW program(s)
- B. National Pretreatment Program
- C. Permit condition(s)
- D. Mechanism for the Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

55. In states with approved state pretreatment programs, the state may assume responsibility for implementing POTWs' local pretreatment programs [40 CFR 403.10(e)]. In such cases, the state is the \_\_\_\_\_ and is required to issue Industrial User permits or other authorized control mechanisms to the Industrial Users.

- A. Approved POTW program(s)
- B. Industrial User
- C. Permit condition(s)
- D. Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

56. In other cases, where the approved state pretreatment program selectively requires certain POTWs to develop approved POTW programs and assumes the responsibility for implementing other municipal programs, the state remains the Control Authority and issues the \_\_\_\_\_ to those facilities where it has retained that responsibility [40 CFR 403.10(e) and (f)].

- A. Permit modification
- B. Permit issuance process
- C. A permit
- D. Pretreatment requirements
- E. Industrial User permits
- F. None of the Above

57. Consequently, \_\_\_\_\_ may be issued by those states rather than by POTWs. Of course, all states are free to issue such permits or other control mechanisms as they deem necessary to carry out the requirements of state law; this might be particularly appropriate where SIUs are discharging to a POTW that does not have an approved pretreatment program.

- A. Approved POTW program(s)
- B. An Industrial User permit
- C. Permit condition(s)
- D. Mechanism for the Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

### **Why Permits are Recommended**

58. The Control Authority must be able to regulate through \_\_\_\_\_ the contributions of its Industrial Users to ensure that the requirements of the General Pretreatment Regulations are met [40 CFR 403.8(f)(l)(iii)].

- A. Permit modification
- B. Permit issuance process
- C. A permit
- D. Permits, orders, or similar means
- E. Permit conditions to determine compliance
- F. None of the Above

59. A permit system provides a mechanism for the \_\_\_\_\_ to control the discharges of Industrial Users to the POTW through an administrative process that facilitates understanding of Pretreatment Standards and Requirements.

- A. Approved POTW program(s)
- B. Industrial User
- C. Permit condition(s)
- D. Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

60. The permitting process allows the Control Authority to clearly communicate and address issues with an Industrial User before \_\_\_\_\_.

- A. Permit modification
- B. Permit issuance
- C. A permit
- D. Pretreatment requirements
- E. Permit conditions to determine compliance
- F. None of the Above

### Permittee's Responsibilities

61. A permit clearly identifies all the permittee's responsibilities and obligations in a single document, thereby increasing the understanding of the \_\_\_\_\_ with regard to pretreatment requirements.

- A. Approved POTW program(s)
- B. Industrial User
- C. Permit condition(s)
- D. Mechanism for the Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

62. The \_\_\_\_\_ itself leads to greater understanding and increased compliance rates by fostering dialogue and development of a one-on-one relationship between the POTW and an Industrial User.

- A. Permit modification
- B. Permit issuance process
- C. A permit
- D. Pretreatment requirements
- E. Permit conditions to determine compliance
- F. None of the Above

63. Which of the following terms can be established to provide flexibility to accommodate changes initiated by the Control Authority or by the Industrial User?

- A. Approved POTW program(s)
- B. Industrial User
- C. Permit condition(s)
- D. Permit modification procedures
- E. General Pretreatment Regulation(s)
- F. None of the Above

64. The ability to modify or revoke and reissue a permit also enables the \_\_\_\_\_ to accommodate changes in federal, state, and local requirements.

- A. Approved POTW program(s)
- B. Industrial User
- C. Permit condition(s)
- D. Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

### Permit Issuance Process

65. Before a Control Authority can begin issuing individual permits or general control mechanisms to Industrial Users, it must have \_\_\_\_\_ to do so, and it must make some basic policy decisions regarding how to identify possible Industrial Users.

- A. Approved POTW program(s)
- B. Adequate legal authority
- C. Permit condition(s)
- D. Mechanism for the Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

### The General Pretreatment Regulations

66. The General Pretreatment Regulations establish responsibilities of Federal, State, and local government, industry and the public to implement \_\_\_\_\_ to control pollutants which pass through or interfere with POTW treatment processes or which may contaminate sewage sludge.

- A. Approved POTW program(s)
- B. Industrial User
- C. Pretreatment Standards
- D. Mechanism for the Control Authority
- E. General Regulation(s)
- F. None of the Above

67. The \_\_\_\_\_ apply to all non-domestic sources which introduce pollutants into a POTW. These sources of "indirect discharge" are more commonly referred to as industrial users (IUs).

- A. Permit modification
- B. Permit issuance process
- C. A permit
- D. General Pretreatment Regulations
- E. Permit conditions to determine compliance
- F. None of the Above

68. Since IUs can be as simple as an unmanned coin operated car wash to as complex as an automobile manufacturing plant or a synthetic organic chemical producer, \_\_\_\_\_ developed four criteria that define a Significant Industrial User (SIU).

- A. Approved POTW program(s)
- B. Industrial User
- C. EPA
- D. Mechanism for the Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

69. Many of the \_\_\_\_\_ apply to SIUs as opposed to IUs, based on the fact that control of SIUs should provide adequate protection of the POTW.

- A. Permit modification
- B. Permit issuance process
- C. A permit
- D. General Pretreatment Regulations
- E. Permit conditions to determine compliance
- F. None of the Above

70. The General Pretreatment Regulations define the term “\_\_\_\_\_” as a POTW that administers an approved pretreatment program since it is the entity authorized to control discharges to its system.

- A. Approved POTW program(s)
- B. Industrial User
- C. Permit condition(s)
- D. Control Authority
- E. General Pretreatment Regulation(s)
- F. None of the Above

### Topic 3 - Identifying Industrial Users

#### Legal Authority

71. POTWs seeking \_\_\_\_\_ must develop policy and procedures for program implementation and establish the legal authority to implement and enforce program requirements.

- A. Legal authority
- B. Assistance
- C. Pretreatment program approval
- D. Legally enforcement
- E. Operation
- F. None of the Above

72. The General Pretreatment Regulations do not provide \_\_\_\_\_ with the legal authority to carry out their pretreatment programs; rather, the regulations set forth the minimum requirements for POTWs with pretreatment programs.

- A. Control Authorities
- B. EPA
- C. POTW
- D. General Pretreatment Regulation(s)
- E. Categorical Industrial Users (CIUs)
- F. None of the Above

73. In order to apply regulatory authority provided by State law, it is generally necessary for the \_\_\_\_\_ to establish local regulations to legally implement and enforce pretreatment requirements. Where the Control

- A. Legal authority
- B. Solicit assistance
- C. Control Authority
- D. Law
- E. POTW's operation
- F. None of the Above

#### Contracts

74. A Control Authority may enter into a contract with \_\_\_\_\_, although contracts generally limit the enforcement capabilities of the Control Authority. As such, contracts should only be pursued when all other means fail.

- A. Industrial User(s)
- B. General control mechanism
- C. SIU
- D. An extra jurisdictional IU
- E. Control Authority's authorized representative(s)
- F. None of the Above

### Industrial Waste Surveys

75. Control Authorities must ensure that the entire service area is reviewed. This may include IUs located outside the jurisdictional boundaries of the \_\_\_\_\_. In these instances, it may be appropriate to solicit assistance from other jurisdictions in developing the list of potential dischargers.

- A. Legal authority
- B. Solicit assistance
- C. Apply for and obtain
- D. Legally implement and enforce
- E. POTW
- F. None of the Above

76. Typically, the Control Authority \_\_\_\_\_ an Industrial Waste Survey (IWS) questionnaire to the identified IUs. The IWS questionnaire requests information regarding IU activities and the nature of wastes discharged.

- A. Develops and distributes
- B. Solicits assistance
- C. Applies for and obtain
- D. Legally implement and enforce
- E. Adversely affect the POTW's operation
- F. None of the Above

### Who Needs a Permit?

77. One of the first decisions to be made when establishing a permit program is to determine which Industrial Users will be required to obtain a permit. At a minimum, EPA requires that permits be issued to all \_\_\_\_\_.

- A. Industrial User(s)
- B. General control mechanism
- C. SIU's
- D. Local limits or BMPs
- E. Control Authority's authorized representative(s)
- F. None of the Above

78. The Control Authority must establish a definition of an SIU to clearly establish which Industrial Users are required to apply for and \_\_\_\_\_.

- A. Legal authority
- B. Solicit assistance
- C. Apply for and obtain
- D. Obtain permits to discharge
- E. Adversely affect the POTW's operation
- F. None of the Above

### EPA has defined Significant Industrial Users as the following:

79. Which of the following terms is subject to categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Topic I, subchapter N.—known as Categorical Industrial Users (CIUs)?

- A. Control Authority
- B. All Industrial Users
- C. POTW
- D. General Pretreatment Regulation(s)
- E. Categorical Industrial Users (CIUs)
- F. None of the Above

80. Any other Industrial User that discharges an average of 25,000 gallons per day (gpd) or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blowdown wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry-weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential to adversely affect the POTW's operation; or for \_\_\_\_\_ any Pretreatment Standard or Requirement.

- A. Legal authority
- B. Violating
- C. Apply for and obtain
- D. Legally implement and enforce
- E. Adversely affect the POTW's operation
- F. None of the Above

81. As defined in the Pretreatment Regulations at 40 CFR 403.3(v)(2), an NSCIU is a discharger that, among other things, never discharges more than 100 gpd of total categorical wastewater to the \_\_\_\_\_ and never discharges any untreated concentrated wastes.
- A. Control Authority
  - B. EPA
  - C. POTW
  - D. General Pretreatment Regulation(s)
  - E. Categorical Industrial Users (CIUs)
  - F. None of the Above

82. If an Industrial User is determined to be \_\_\_\_\_, the user is no longer an SIU and is therefore not required to be controlled through a permit or other control mechanism although the Control Authority, of course, may choose to do so.
- A. Control Authority
  - B. EPA
  - C. An NSCIU
  - D. General Pretreatment Regulation(s)
  - E. Categorical Industrial Users (CIUs)
  - F. None of the Above

### Non-SIUs

83. Many POTWs also control contributions from non-SIUs using various means, such as through general permits issued to an entire industrial sector. These types of control mechanisms may not necessarily require compliance with \_\_\_\_\_.
- A. Control Authority
  - B. EPA
  - C. POTW
  - D. General Pretreatment Regulation(s)
  - E. Specific pollutant limitations
  - F. None of the Above

### Industrial Sector

84. Industrial sector \_\_\_\_\_ are common where a real or potential POTW problem is linked to a particular pollutant discharged (e.g., collection system blockages caused by the discharge of excess oils and grease from food establishments).
- A. Control Authority
  - B. General permitting programs
  - C. POTW
  - D. General Pretreatment Regulation(s)
  - E. Categorical Industrial Users (CIUs)
  - F. None of the Above

85. Which of the following terms have authority to enforce their SUO or rules or regulations against non-SIUs without the need for any type of individual control mechanism?
- A. Non-SIUs
  - B. SIUs
  - C. Potential permittees
  - D. POTW(s)
  - E. Control Authority personnel
  - F. None of the Above

86. Control Authorities have the authority to require non-SIUs to comply with \_\_\_\_\_ and requirements contained in their local regulations and then take appropriate actions against IUs as noncompliance is identified.
- A. Control Authority
  - B. EPA
  - C. Pretreatment standards
  - D. General Pretreatment Regulation(s)
  - E. Categorical Industrial Users (CIUs)
  - F. None of the Above

### Inspections

87. Which of the following terms are required to inspect and sample all SIUs a minimum of once per year pursuant to 40 CFR §403.8(f)(2)(v)?
- A. Non-SIUs
  - B. SIUs
  - C. Potential permittees
  - D. POTW(s)
  - E. Control Authorities
  - F. None of the Above

88. The frequency with which a \_\_\_\_\_ actually inspects an SIU may vary depending on issues such as the variability of an SIU's effluent, the impact of their discharge on the POTW, and their compliance history. Inspection considerations will hinge upon the type of inspection performed (i.e., scheduled, unscheduled or demand).

- A. SIU(s)
- B. IU(s)
- C. POTW
- D. Specific standards and requirements
- E. Control Authority
- F. None of the Above

89. Which of the following terms are must evaluate, at least once every two years, whether each SIU needs a plan to control slug discharges (i.e., a discharge of a non-routine, episodic nature, including but not limited to an accidental spill or non-customary batch discharge)?

- A. Non-SIUs
- B. SIUs
- C. Potential permittees
- D. POTW(s)
- E. Control Authority personnel
- F. None of the Above

90. To accurately evaluate the slug potential, Control Authorities likely will have to examine the \_\_\_\_\_ during normal operating conditions. If undetected, slug discharges can have serious impacts on the POTW.

- A. SIU
- B. Permit issuance
- C. POTW
- D. Control Authority
- E. Nondomestic dischargers
- F. None of the Above

91. Demand inspections are non-routine in nature and occur in response to a concern (e.g., POTW collection problems downstream from an \_\_\_\_\_, elevated enforcement actions against an IU, suspicious IU behavior, or an informer complaint).

- A. Non-SIUs
- B. IU
- C. Potential permittees
- D. POTW(s)
- E. Control Authority personnel
- F. None of the Above

92. Routine Control Authority inspections of \_\_\_\_\_ typically consist of three activities; preparation, on-site assessment, and follow-up.

- A. SIU(s)
- B. IU(s)
- C. POTW
- D. Specific standards and requirements
- E. Control Authority
- F. None of the Above

### Preparation

93. Control Authority personnel should review POTW records for \_\_\_\_\_ to be inspected to familiarize themselves with the facility. Information reviewed may include compliance status, compliance schedule activities, reports and plans, upcoming report and plan due dates, enforcement activities, permit applications, waste surveys, previous inspection summaries, categorical regulations, water use/billing records, and POTW collection system maps.

- A. Non-SIUs
- B. SIUs
- C. Potential permittees
- D. POTW(s)
- E. Control Authority personnel
- F. None of the Above

94. Control Authority personnel should also be familiar with any specific issues and concerns regarding the POTW treatment plant or collection system problems receiving the \_\_\_\_\_.

- A. SIUs
- B. Permit issuance
- C. POTW
- D. SIU's discharge
- E. Nondomestic dischargers
- F. None of the Above



### When to Issue a Permit

95. Once all \_\_\_\_\_ have been identified, the permits should be issued as soon as possible.

- A. Non-SIUs
- B. SIUs
- C. Potential permittees
- D. POTW(s)
- E. Control Authority personnel
- F. None of the Above

96. If the \_\_\_\_\_ will be permitting several SIUs, it might be helpful to issue the permits with staggered expiration dates to balance the permit reissuance workload in the future. Control Authorities should plan to reissue permits before they expire.

- A. SIU(s)
- B. IU(s)
- C. POTW
- D. Specific standards and requirements
- E. Control Authority
- F. None of the Above

### What Types of Permits to Use

97. Keeping in mind that the purpose of \_\_\_\_\_ is for the Control Authority to notify Industrial Users of the specific standards and requirements that they must meet, the Control Authority could choose to develop and issue different types of permits for different reasons.

- A. SIU(s)
- B. IU(s)
- C. POTW
- D. Specific standards and requirements
- E. Issuing permits
- F. None of the Above

### Individual Control Mechanisms

98. The most traditional type of control mechanism is the individual, facility-specific permit. Although this permit might contain general and \_\_\_\_\_, categorical standards, and local limits that are very similar or the same as those issued to other facilities in the Control Authority service area, the bases of the standards and requirements are individually considered and determined.

- A. Control Authority
- B. Specific prohibitions
- C. An Industrial User permit
- D. General control mechanisms
- E. Individual, facility-specific permit
- F. None of the Above

### General Control Mechanisms

99. Using general control mechanisms allows the Control Authority to allocate resources more efficiently and to provide timelier permit coverage. \_\_\_\_\_ would be an available tool for permitting similar SIUs that are subject to concentration-based standards or BMPs (or both).

- A. Control Authority
- B. SIUs
- C. An Industrial User permit
- D. General control mechanisms
- E. Individual, facility-specific permit
- F. None of the Above

### Permit or Discharge Terminations or Suspensions

100. Situations could arise during the effective period of a permit that require the Control Authority to suspend or terminate the \_\_\_\_\_ to discharge into the sewer system.

- A. POTW
- B. Control Authority
- C. BMP(s)
- D. Industrial User's authorization
- E. An individual control mechanism
- F. None of the Above

### Legal Authority for a Permit Program

101. The legal authority of a \_\_\_\_\_ or other local Control Authority to administer a permit program is derived from state law and local ordinance.

- A. POTW
- B. Control Authority
- C. Permit program
- D. State law and local ordinance
- E. Pretreatment Standard(s)
- F. None of the Above

### Signature

102. The use of contracts or contractual agreements as a control mechanism does not provide a \_\_\_\_\_ with the requisite penalty authority for an approved program and are not an adequate control mechanism for POTWs with an approved program.

- A. POTW
- B. Control Authority
- C. Permit program
- D. State law and local ordinance
- E. Pretreatment Standard(s)
- F. None of the Above

### Legal Authority

103. Under general principles of administrative law, \_\_\_\_\_ and other interested parties typically may challenge the Control Authority's permit decisions.

- A. Industrial User(s)
- B. General control mechanism
- C. Permit applicants
- D. Local limits or BMPs
- E. Control Authority's authorized representative(s)
- F. None of the Above

### Requiring Industrial Users to Obtain Permits

104. The legal authority for a permit system, whether in a local sewer ordinance or state law, must make it clear that \_\_\_\_\_ covered by the permit program must obtain a permit or be subject to control under some general control mechanism.

- A. POTW
- B. Control Authority
- C. Industrial Users
- D. State law and local ordinance
- E. Pretreatment Standard(s)
- F. None of the Above

### Submitting Data

105. Which of the following terms that are requesting monitoring waivers for pollutants neither present nor expected to be present might still qualify for coverage under a general control mechanism?

- A. SIU's
- B. CWA
- C. State law
- D. Control Authority
- E. Other Industrial Users
- F. None of the Above

### Entering and Inspecting

106. EPA regulations require the Control Authority to have the authority to enter and inspect Industrial Users' facilities. This authority must be at least as extensive as \_\_\_\_\_ own broad authority under section 308 of the CWA.

- A. SIU
- B. CWA
- C. State law
- D. Control Authority
- E. EPA's
- F. None of the Above

### **Imposing Local Limits (including BMPs)**

107. The legal authority must state that such local limits or BMPs or both may be imposed on Industrial Users directly through the legal authority, through Industrial User permits, and through additional control mechanisms that the \_\_\_\_\_ intends to use as part of its pretreatment program.

- A. Industrial User(s)
- B. General control mechanism
- C. SIU
- D. Local limits or BMPs
- E. Control Authority
- F. None of the Above

### **Imposing Federal and State Requirements**

108. Which of the following terms is responsible for enforcing federal and state Pretreatment Standards and Requirements as well as local limits? The legal authority must specifically require compliance with the general and specific prohibitions [40 CFR 403.5] and any other requirements mandated under state law.

- A. SIU
- B. CWA
- C. State law
- D. Control Authority
- E. Other Industrial Users
- F. None of the Above

### **Requiring Industrial Users to Self-Monitor, Keep Records, and Report**

109. Which of the following terms must have the legal authority to impose and enforce such requirements in Industrial User permits? In addition, the ordinance should authorize the Control Authority to impose and enforce those or similar obligations on other Industrial Users. Furthermore, for any user determined by the Control Authority to be an NSCIU, the Control Authority must require an annual certification requirement in accordance with 40 CFR 403.12(q).

- A. SIU
- B. CWA
- C. State law
- D. Control Authority
- E. Other Industrial Users
- F. None of the Above

### **Imposing Other Conditions based on State or Local Requirements**

110. In many instances, the \_\_\_\_\_ will have developed other local requirements or conditions pertinent to Industrial User discharges. These conditions are in addition to those required by the National Pretreatment Program.

- A. Industrial User(s)
- B. General control mechanism
- C. SIU
- D. Local limits or BMPs
- E. Control Authority
- F. None of the Above

## **Topic 4- Permit Applications**

### **What Information to Collect and How to Collect it**

111. Which of the following terms enables the Control Authority to obtain the information necessary to evaluate the quality and quantity of wastewater to be discharged and to determine what controls are necessary for the Control Authority to accept the wastewater?

- A. Industrial User's BMR
- B. Potential pollutants
- C. Any existing BMPs
- D. An Industrial User
- E. A permit application
- F. None of the Above

112. The Control Authority should have the legal authority to require an Industrial User to complete and file a permit application to receive a \_\_\_\_\_.

- A. Draft permit
- B. Permit application
- C. The permit application format
- D. Permit
- E. Plumbing schematics
- F. None of the Above

113. Control Authority should consider requiring an existing permittee to submit an application with updated information for a\_\_\_\_\_. The permit application serves as the formal request from the Industrial User to the Control Authority to connect or discharge to the sewer system.

- A. Draft permit
- B. Permit application
- C. The permit application format
- D. Permit
- E. Reissued permit
- F. None of the Above

114. The permit application format should be standardized so that all necessary information is requested but should also allow the applicant the leeway to include narrative information. The Industrial User should be required to provide manufacturing process flow and wastewater characteristics, and information regarding any\_\_\_\_\_.

- A. Existing BMPs
- B. Permit application
- C. The permit application format
- D. Appropriate permit conditions
- E. Plumbing schematics
- F. None of the Above

115. Other information, such as number of employees, list of chemicals used or stored, and \_\_\_\_\_, is also vital to the permit writer.

- A. Draft permit
- B. Permit application
- C. The permit application format
- D. Appropriate permit conditions
- E. Plumbing schematics
- F. None of the Above

116. The number of employees can indicate the estimated volume of sanitary flow, and the list of chemicals used by the facility can indicate potential pollutants present in the \_\_\_\_\_.

- A. Industrial User's BMR
- B. Potential pollutants
- C. Any existing BMPs
- D. Industrial User
- E. Wastestream
- F. None of the Above

117. This information can lead to a better understanding of the facility's operations, which, in turn, enables the permit writer to evaluate the Industrial User's discharge comprehensively and to develop adequate and \_\_\_\_\_.

- A. Draft permit
- B. Permit application
- C. The permit application format
- D. Appropriate permit conditions
- E. Plumbing schematics
- F. None of the Above

118. If the Control Authority does not require an Industrial User to complete a permit application to receive a permit, the Control Authority could compile the necessary information to draft a permit by reviewing the \_\_\_\_\_ (if the user is a CIU), reviewing historical effluent data, or conducting a site inspection of the user's facility.

- A. Industrial User's BMR
- B. Potential pollutants
- C. Any existing BMPs
- D. An Industrial User
- E. Control Authority
- F. None of the Above

### Application Review Process

119. After receiving the completed application, the review process begins. First, the Control Authority should review the application for completeness and accuracy. Because the \_\_\_\_\_ is based on the information in the application, it is imperative that the permit writer use all means possible, including inspecting the facility.

- A. Draft permit
- B. Permit application
- C. The permit application format
- D. Appropriate permit conditions
- E. Plumbing schematics
- F. None of the Above

120. Instructions provided to the Industrial User on how to complete the \_\_\_\_\_ should state that all items must be completed and that the term not applicable should be used to show that the item was considered but was not pertinent to the facility.

- A. Appropriate permit limits
- B. Accurate flow data
- C. Incomplete application
- D. Application
- E. Adequate sampling data
- F. None of the Above

121. If changes or corrections to any application are extensive, the Control Authority should exercise its information gathering authority to request a revised, complete application instead of an incomplete application that is later augmented with \_\_\_\_\_.

- A. Multiple attachments
- B. Accurate flow data
- C. Incomplete application
- D. Monitoring requirement for that pollutant
- E. Adequate sampling data
- F. None of the Above

122. In some cases, such as where significant dilution is thought to occur, data on the characteristics of internal wastestreams, particularly treatment unit effluents, might be needed to assess the adequacy of existing pollution controls and the feasibility of achieving greater decreases of pollutants in the effluent. In addition, data on flows of \_\_\_\_\_ must be known if the permit writer is applying the CWF [40 CFR 403.6(e)].

- A. Toxic substances
- B. Effluent limits
- C. Water balance
- D. Internal wastestreams
- E. Raw materials
- F. None of the Above

123. Pollutant data on the final effluent might not always be adequate for complex facilities where internal wastestreams can be diluted by large volumes of \_\_\_\_\_ before the sampling point. Waste characterization (through sampling and analysis) of individual wastestreams might be necessary.

- A. Toxic substances
- B. Cooling water
- C. Water balance
- D. Trade name products
- E. Raw materials
- F. None of the Above

124. Where an Industrial User discloses that a pollutant is present in the effluent, the permit writer should include a \_\_\_\_\_ for that pollutant.

- A. Appropriate permit limits
- B. Categorical wastestreams
- C. Pollutant(s)
- D. Trade name products or compounds
- E. Monitoring requirement
- F. None of the Above

125. A review of \_\_\_\_\_ will allow the permit writer to decide what pollutants warrant limits or monitoring requirements or both. The permit writer should not hesitate to require any supplementary information (such as more detailed production information or monitoring data) needed to develop the permit.

- A. Toxic substances
- B. Effluent limits
- C. Water balance
- D. Trade name products
- E. All raw materials
- F. None of the Above

### Accuracy

126. A permit application must be accurate. In other words, not only should the application be complete and contain all \_\_\_\_\_, but it must also be correct.

- A. Appropriate permit limits
- B. Accurate flow data
- C. The necessary information
- D. Monitoring requirement for that pollutant
- E. Adequate sampling data
- F. None of the Above

127. The permit writer should also verify schematic diagrams of facility operations and internal wastewater streams by inspecting the facility. If the facility is subject to categorical Pretreatment Standards, the permit writer should pay attention to identifying which wastestreams are regulated by the \_\_\_\_\_, which wastestreams are not, and where any wastestreams might combine.

- A. Categorical standards
- B. Categorical wastestreams
- C. Pollutant(s)
- D. Trade name products or compounds
- E. Monitoring requirement for that pollutant
- F. None of the Above

128. Developing a \_\_\_\_\_ using the water and wastewater flow data provided by the Industrial User can determine whether all wastestreams have been accounted for and whether flow data are accurate. If discrepancies exist, the Control Authority should collect actual flow measurements to gather more accurate data.

- A. Toxic substances
- B. Effluent limits
- C. Water balance
- D. Trade name products
- E. Raw materials
- F. None of the Above

### Current permit and rationale for the current permit

129. The permit writer should be aware of the parameters regulated, the basis for setting effluent limits (i.e., any change in processes or categorical wastestreams), and any \_\_\_\_\_ required of the discharger.

- A. BMPs
- B. Categorical wastestreams
- C. Pollutant(s)
- D. Trade name products or compounds
- E. Monitoring requirement for that pollutant
- F. None of the Above

### Topic 5 - Permitting Considerations

130. The permit writer should also avoid long and confusing requirements. However, the permit writer should not be so brief as to leave out vital specifics. A permit frequently acts as the \_\_\_\_\_ to the Industrial User of its responsibilities for compliance. Therefore, permit requirements must be clear and simple to understand.

- A. Appropriate permit limits
- B. Accurate flow data
- C. Principal notification
- D. Application
- E. Adequate sampling data
- F. None of the Above

### Common Permitting Errors and Omissions

The permit writer should keep in mind that any of the following errors and omissions in the permit might cause it to be susceptible to legal challenge, to fail to properly regulate the Industrial User, or to be misleading or confusing to the permittee:

131. Failure to correctly \_\_\_\_\_ effluent limitations from pertinent Pretreatment Standards.

- A. Failure to identify
- B. Where applicable
- C. Simple to understand
- D. Calculate and apply
- E. Could need permit conditions
- F. None of the Above

132. Failure to apply the \_\_\_\_\_ (federal categorical Pretreatment Standard, state requirement, or local limit)

- A. Analyze comments
- B. Predictable variations
- C. Most stringent limit
- D. Not flexible and cannot be modified
- E. Specific citations to requirements
- F. None of the Above

133. Failure to \_\_\_\_\_ or analytical requirements, including a failure to identify specific monitoring locations.

- A. Specify adequate monitoring
- B. Launch
- C. Simply to understand
- D. Calculate and apply
- E. Need permit conditions
- F. None of the Above

134. Failure to incorporate specific citations to requirements contained in an ordinance or regulation, where the requirements are not otherwise \_\_\_\_\_.

- A. Analyze comments
- B. Predictable variations
- C. Set forth in the permit
- D. Not flexible and cannot be modified
- E. Specific citations to requirements
- F. None of the Above

135. \_\_\_\_\_ the signatory requirements for self-monitoring reports and other notification requirements.

- A. Failure to identify
- B. Where applicable
- C. Simple to understand
- D. Calculate and apply
- E. Failure to specify
- F. None of the Above

136. Failure to account for \_\_\_\_\_ or other predictable variations in the effluent.

- A. Analyze comments
- B. Predictable variations
- C. Most stringent limit
- D. Any known seasonal changes
- E. Specific citations to requirements
- F. None of the Above

### Flexibility

137. Specific conditions within each permit element should be tailored to the Industrial User for which the permit is intended. While it might be obvious that very dissimilar Industrial Users will need different \_\_\_\_\_, even similar Industrial Users could need permit conditions tailored to site-specific discharge situations.

- A. Predictable variations
- B. Where applicable
- C. Simple to understand
- D. Calculations and applications
- E. Permit conditions
- F. None of the Above

138. \_\_\_\_\_ are not flexible and cannot be modified. For example, the permit writer cannot modify categorical Pretreatment Standards and Requirements or the general and specific prohibitions in 40 CFR 403.5.

- A. Analyze comments
- B. Predictable variations
- C. Most stringent limit
- D. Certain permit conditions
- E. Specific citations to requirements
- F. None of the Above

The following are federal requirements that must be imposed on Industrial Users where they apply:

139. Those conditions based on federal Pretreatment Standards and Requirements, including any \_\_\_\_\_.

- A. BMP requirements
- B. MTCIU
- C. Permit terms
- D. NSCIU classification
- E. Maximum allowable headworks loading (MAHL)
- F. None of the Above

140. Use of the \_\_\_\_\_ formula to derive appropriate limits for CIUs where pertinent.

- A. BMP requirements
- B. MTCIU
- C. Permit terms
- D. NSCIU classification
- E. CWF or flow-weighted averaging
- F. None of the Above

141. Requirement to follow analytical methods in 40 CFR Part 136 or other EPA-approved methods for \_\_\_\_\_.

- A. BMP requirements
- B. Wastewater analyses
- C. Permit terms
- D. NSCIU classification
- E. Maximum allowable headworks loading (MAHL)
- F. None of the Above

142. Flexibility is provided, however, in the drafting process allowing the permit writer to analyze comments and modify portions of the \_\_\_\_\_.

- A. Draft permit
- B. Permit application
- C. The permit application format
- D. Permit
- E. Reissued permit
- F. None of the Above

Situations (depending on legal authority) that could result in modified permit conditions include the following:

143. Wastewater flow rate [Note: Modifications to the wastewater flow rate must not exceed the flow used in the development of the approved \_\_\_\_\_].

- A. POTW
- B. MTCIU
- C. Permit terms
- D. NSCIU classification
- E. Maximum allowable headworks loading
- F. None of the Above

In addition, if an Industrial User is classified as an MTCIU, its flow rate modification must not exceed the following:

144. 0.01 percent of the design dry-weather hydraulic capacity of the \_\_\_\_\_, or 5,000 gpd, whichever is smaller,

- A. POTW
- B. MTCIU
- C. Permit terms
- D. NSCIU classification
- E. Maximum allowable headworks loading (MAHL)
- F. None of the Above



145. 0.01 percent of the design dry-weather organic capacity of the \_\_\_\_\_.
- A. POTW
  - B. MTCIU
  - C. Permit terms
  - D. NSCIU classification
  - E. Maximum allowable headworks loading (MAHL)
  - F. None of the Above

146. 0.01 percent of the maximum allowable headworks loading (MAHL) for any pollutant regulated by the pertinent categorical Pretreatment Standard for which approved local limits were developed by the \_\_\_\_\_ in accordance with 40 CFR 403.5(c).]
- A. POTW
  - B. MTCIU
  - C. Permit terms
  - D. NSCIU classification
  - E. Maximum allowable headworks loading (MAHL)
  - F. None of the Above

### **Documenting Permit Decisions**

147. Throughout the permit drafting process, the permit writer should carefully and thoroughly document each step for several reasons. First, it will help the permit writer develop the \_\_\_\_\_ thoroughly and logically.

- A. Draft permit
- B. Permit application
- C. The permit application format
- D. Permit
- E. Reissued permit
- F. None of the Above

148. Second, it will facilitate defending any challenges that the \_\_\_\_\_ terms and conditions were developed arbitrarily or capriciously.

- A. Draft permit
- B. Permit application
- C. The permit application format
- D. Permit
- E. Reissued permit
- F. None of the Above

149. Third, it will provide the required documentation in the permit record of any relief from otherwise pertinent requirements (i.e., pollutants not expected to be present, equivalent limits, decisions on general control mechanisms, decisions on \_\_\_\_\_, and decisions on reduced monitoring requirements). Finally, careful documentation makes future permit reissuance easier, particularly if a new permit writer is responsible for permit reissuance.

- A. POTW
- B. MTCIU
- C. Permit terms
- D. NSCIU classification
- E. Maximum allowable headworks loading (MAHL)
- F. None of the Above

### **Topic 6 - Effluent Limitations**

#### **Selecting Pollutants to be Regulated**

150. To identify pollutants to be regulated, the permit writer must first determine whether the Industrial User is subject to \_\_\_\_\_. Next, the permit writer should determine what pollutants are present or suspected of being present in the wastewater.

- A. Categorical standard
- B. Permit
- C. Wastewater
- D. Categorical Pretreatment Standards
- E. Standards in the user's permit
- F. None of the Above

### **Categorical Pretreatment Standards**

151. Categorical Pretreatment Standards are technology-based standards for a selected group of industries established by EPA under authority of the CWA. These standards are developed on the basis of industry-wide studies of current \_\_\_\_\_ (e.g., treatment technology) and, therefore, establish national baseline pollution control requirements for the regulated industrial categories.

- A. Daily maximum
- B. Pretreatment Standards
- C. Monthly average limits
- D. Treatment practices for pollution control
- E. Applicable effluent limitations for the pollutants
- F. None of the Above

152. Pretreatment Standards are generally declared for both existing sources and new sources. These standards could be the same or different. If an Industrial User is subject to categorical Pretreatment Standards, the permit writer must include \_\_\_\_\_ based on these standards in the user's permit.

- A. Effluent limits
- B. Permit
- C. Wastewater
- D. Flow and concentration
- E. Standards in the user's permit
- F. None of the Above

153. If the Control Authority has determined that a monitoring waiver is appropriate, the permit must still contain the pertinent \_\_\_\_\_ with waived monitoring requirements.

- A. Daily maximum
- B. Pretreatment Standards
- C. Monthly average limits
- D. National baseline pollution control requirements
- E. Effluent limitations for the pollutants
- F. None of the Above

### **Rules for Applying Categorical Pretreatment Standards**

154. Categorical standards apply directly to specific wastestream or at the end of treatment of that wastestream. When the designated sampling location described in the permit contains a \_\_\_\_\_ and one or more other wastestreams not regulated by the same categorical standard, an alternative categorical limit must be calculated.

- A. Categorical standard
- B. Permit
- C. Wastewater
- D. Flow and concentration
- E. Categorically-regulated wastestream
- F. None of the Above

155. If effluent limits have both the daily maximum and the \_\_\_\_\_ Pretreatment Standards, both limits must be included in the permit.

- A. Daily maximum
- B. Pretreatment Standards
- C. Monthly average limits
- D. Monthly average categorical
- E. Applicable effluent limitations for the pollutants
- F. None of the Above

156. Limitations on all pollutants regulated by the \_\_\_\_\_ must be included in the permit.

- A. Categorical standard
- B. Permit
- C. Wastewater
- D. Categorical Pretreatment Standards
- E. Standards in the user's permit
- F. None of the Above

### Rules for Production-Based Categorical Pretreatment Standards

157. Incorporating production-based categorical Pretreatment Standards in permits involves \_\_\_\_\_. The standards are expressed in terms of an allowable pollutant mass discharge per unit of production, such as pounds of pollutant per 1,000 pounds of product produced.

- A. Daily maximum
- B. Special considerations
- C. Monthly average limits
- D. National baseline pollution control requirements
- E. Applicable effluent limitations for the pollutants
- F. None of the Above

158. The standards can be placed in the permit verbatim from the regulations. The permit should then require the Industrial User to submit actual production data from the date(s) on which the compliance samples were collected and to calculate the actual mass of pollutant(s) discharged, on the basis of \_\_\_\_\_, to evaluate compliance for that specific day.

- A. Categorical standard
- B. Permit
- C. Wastewater
- D. Flow and concentration
- E. Standards in the user's permit
- F. None of the Above

159. Often, it might be impractical or difficult for the Control Authority to independently determine or verify compliance because the production rate and the \_\_\_\_\_ and pollutant concentration must be known. The Control Authority has the option of using equivalent mass or concentration limits [40 CFR 403.6(c)].

- A. Daily maximum
- B. Wastestream flow
- C. Monthly average limits
- D. National baseline pollution control requirements
- E. Applicable effluent limitations for the pollutants
- F. None of the Above

160. Such limits use an industry's long-term average daily production and flow rates to derive the corresponding daily maximum and \_\_\_\_\_.

- A. Daily maximum
- B. Pretreatment Standards
- C. Monthly average limits
- D. National baseline pollution control requirements
- E. Applicable effluent limitations for the pollutants
- F. None of the Above

161. The Industrial User permit may function as the \_\_\_\_\_ for the conversion of production-based standards to equivalent mass or concentration limits. These equivalent limits are deemed Pretreatment Standards under section 307(b) of the CWA and are federally enforceable.

- A. Legal document
- B. Pretreatment Standards
- C. Monthly average limits
- D. National baseline pollution control requirements
- E. Applicable effluent limitations for the pollutants
- F. None of the Above

162. It is critical when converting production-based standards to \_\_\_\_\_ that the permit writer correctly calculate the equivalent limits and document the calculations.

- A. Daily maximum
- B. Pretreatment Standards
- C. Monthly average limits
- D. Equivalent mass or concentration limits
- E. Applicable effluent limitations for the pollutants
- F. None of the Above

**A Permit Containing Equivalent Limits Must Clearly Specify:**

The flow and production rates upon which the limits are based;

163. The requirement that the Industrial User report a reasonable measure of its \_\_\_\_\_ in each periodic compliance report.

- A. Daily flow rates
- B. Dilution
- C. Data
- D. Long-term production rate
- E. Equivalent mass limits for concentration limits
- F. None of the Above

164. Determining the \_\_\_\_\_ is one of the critical factors in deriving equivalent limits. EPA recommends using a production figure that approximates the long-term average.

- A. Long-term average
- B. Appropriate production rate
- C. Water conservation methods
- D. Flow and production rates
- E. Long-term average production rate
- F. None of the Above

165. Which of the following terms is for a day, week, month, or year that are unusually high or low should not be used; 3 to 5 years of data should be reviewed to determine the appropriate long-term average?

- A. Daily flow rates
- B. Dilution
- C. Data
- D. Periodic compliance report
- E. Equivalent mass limits for concentration limits
- F. None of the Above

**Rules for Applying Equivalent Mass Limits for Concentration Limits**

166. Before establishing \_\_\_\_\_, the Control Authority must have the legal authority to implement such a provision.

- A. Long-term average
- B. Equivalent mass limits
- C. Water conservation methods
- D. Flow and production rates
- E. Long-term average production rate
- F. None of the Above

167. Where a program has been modified to do so, the Control Authority has the option of establishing equivalent mass limits for \_\_\_\_\_ [40 CFR 403.6(c)(5)].

- A. Daily flow rates
- B. Dilution
- C. Data
- D. Periodic compliance report
- E. Concentration limits
- F. None of the Above

For an Industrial User to be eligible for equivalent mass limits, the user must do the following:

168. Employ or demonstrate that it will employ \_\_\_\_\_ and technologies that substantially reduce water use during the term of its permit.

- A. Long-term average
- B. Equivalent mass limits
- C. Water conservation methods
- D. Flow and production rates
- E. Long-term average production rate
- F. None of the Above

169. Currently use control and treatment technologies adequate to achieve compliance with the pertinent categorical Pretreatment Standards and not have used \_\_\_\_\_ as a substitute for treatment.

- A. Daily flow rates
- B. Dilution
- C. Data
- D. Periodic compliance report
- E. Equivalent mass limits for concentration limits
- F. None of the Above

170. Provide sufficient information to establish the facility's actual average daily flow rate for all wastestreams, on the basis of data from a \_\_\_\_\_, as well as the facility's long-term average production rate. Both the actual average daily flow rate and long-term production rate must be representative of current operation conditions.

- A. Long-term average
- B. Equivalent mass limits
- C. Water conservation methods
- D. Continuous effluent flow monitoring device
- E. Long-term average production rate
- F. None of the Above

171. Not have daily flow rates, production levels, or pollutant levels that vary so significantly that equivalent mass limits are not appropriate to control the \_\_\_\_\_.

- A. Actual daily flow rate
- B. Production levels
- C. Discharge
- D. Interference
- E. Alternate temperature limits
- F. None of the Above

172. If the Control Authority chooses to establish equivalent mass limits, it may retain the same equivalent mass limit in subsequent permit terms if the user's actual average daily flow rate was reduced solely as a result of implementing water-conservation methods and the actual average daily flow rate used in the original calculation of the equivalent mass limit was not based on the use of \_\_\_\_\_.

- A. Long-term average
- B. Equivalent mass limits
- C. Water conservation methods
- D. Dilution as a substitute for treatment
- E. Long-term average production rate
- F. None of the Above

173. The Control Authority must do the following:

Calculate the equivalent mass limits by multiplying the actual daily flow rate of the regulated process(es) of the user by the \_\_\_\_\_ and the appropriate conversion factors.

- A. Actual daily flow rate
- B. Production levels
- C. Discharges
- D. Interference
- E. Concentration-based categorical Pretreatment Standards
- F. None of the Above

174. Reassess the \_\_\_\_\_ and recalculate the limit as necessary to reflect changed conditions at the facility.

- A. Long-term average
- B. Equivalent mass limit
- C. Water conservation methods
- D. Flow and production rates
- E. Long-term average production rate
- F. None of the Above

### Specific Prohibitions:

The following pollutants must not be introduced into a POTW:

175. Which of the following terms may create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 262.21 [40 CFR 403.5(b)(1)]

- A. Interference
- B. Pollutants
- C. Local Limits
- D. Oxygen demanding pollutants
- E. Contaminates
- F. None of the Above

176. Pollutants that will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the POTW is specifically designed to accommodate such \_\_\_\_\_ [40 CFR 403.5 (b) (2)]

- A. Actual daily flow rate
- B. Production levels
- C. Discharges
- D. Interference
- E. Alternate temperature limits
- F. None of the Above

177. Which of the following terms in amounts that will cause obstruction to the flow in the POTW resulting in interference [40 CFR 403.5(b)(3)]?

- A. Interference
- B. Pollutants
- C. Solid or viscous pollutants
- D. Oxygen demanding pollutants
- E. Contaminates
- F. None of the Above

178. Any pollutant, including oxygen demanding pollutants (BOD, and the like) released in a discharge at a flow rate or \_\_\_\_\_ that will cause interference with the POTW [40 CFR 403.5(b)(4)]

- A. Interference
- B. Pollutants
- C. Local Limits
- D. Oxygen demanding pollutants
- E. Pollutant concentration
- F. None of the Above

179. Heat in amounts that will inhibit biological activity in the POTW resulting in \_\_\_\_\_, but in no case heat in such quantities that the temperature at the POTW exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits [40 CFR 403.5(b)(5)]

- A. Actual daily flow rate
- B. Production levels
- C. Discharges
- D. Interference
- E. Alternate temperature limits
- F. None of the Above

### **Topic 7 - Monitoring and Reporting Requirements**

#### **Identify the Missing Term –Compliance Glossary**

180. Any discharge of a non-routine, episodic nature, including but not limited to, an accidental spill or a noncustomary batch discharge.

- A. Slug Discharge
- B. Non-Regulated Wastestream
- C. Interference
- D. Significant Industrial User (SIU)
- E. Time Proportional Composite Sample
- F. None of the Above

181. A sample consisting of a series of aliquots collected from a representative point in the discharge stream at equal time intervals over the entire discharge period on the sampling day.

- A. Slug Discharge
- B. Non-Regulated Wastestream
- C. Interference
- D. Significant Industrial User (SIU)
- E. Time Proportional Composite Sample
- F. None of the Above

182. A discharge that occurs without interruption during the operating hours of a facility, except for infrequent shutdowns for maintenance, process changes or similar activities.

- A. Compliance Schedule
- B. Continuous Discharge
- C. Nonconventional Pollutants
- D. Pretreatment Requirements
- E. Monthly Average
- F. None of the Above

183. A codification of Federal rules published annually by the Office of the Federal Register National Archives and Records Administration. Title 40 of the CFR contains the regulations for Protection of the Environment.

- A. Detection Limit
- B. Clean Water Act (CWA)
- C. Chronic
- D. Code of Federal Regulations (CFR)
- E. Baseline Monitoring Report (BMR)
- F. None of the Above

184. A stimulus that lingers or continues for a relatively long period of time, often one-tenth of the life span or more.

- A. Detection Limit
- B. Clean Water Act (CWA)
- C. Chronic
- D. Code of Federal Regulations (CFR)
- E. Baseline Monitoring Report (BMR)
- F. None of the Above

185. For purposes of applying the combined wastestream formula, a wastestream from an industrial process that is regulated by a categorical standard.

- A. Grab Sample
- B. Fundamentally Different Factors
- C. Flow Weighted Average Formula (FWA)
- D. Regulated Wastestream
- E. Self-Monitoring
- F. None of the Above

186. A record of each person involved in the possession of a sample from the person who collects the sample to the person who analyzes the sample in the laboratory.

- A. Combined Sewer Overflow (CSO)
- B. Chain of Custody (COC)
- C. Best Professional Judgment (BPJ)
- D. Combined Wastestream Formula (CWF)
- E. Periodic Compliance Report
- F. None of the Above

187. A limit based upon the relative strength of a pollutant in a wastestream, usually expressed in mg/l.

- A. Point Source
- B. Non-Contact Cooling Water
- C. Local Limits
- D. Concentration-based Limit
- E. 90-Day Final Compliance Report
- F. None of the Above

188. No user shall introduce into a POTW any pollutant(s) which cause pass through or interference.

- A. Chain of Custody (COC)
- B. General Prohibitions
- C. Indirect Discharge or Discharge
- D. Best Management Practices (BMPs)
- E. Flow Proportional Composite Sample
- F. None of the Above

189. A sample which is taken from a wastestream on a one-time basis with no regard to the flow of the wastestream and without consideration of time.

- A. Combined Sewer Overflow (CSO)
- B. Grab Sample
- C. Best Professional Judgment (BPJ)
- D. Combined Wastestream Formula (CWF)
- E. Periodic Compliance Report
- F. None of the Above

190. The intentional diversion of wastestreams from any portion of an Industrial User's treatment facility.

- A. Combined Sewer Overflow (CSO)
- B. Bypass
- C. Best Professional Judgment (BPJ)
- D. Combined Wastestream Formula (CWF)
- E. Periodic Compliance Report
- F. None of the Above

191. An industrial user subject to National categorical pretreatment standards.

- A. Categorical Industrial User (CIU)
- B. Bypass
- C. Self-Monitoring
- D. Sanitary Sewer Overflow (SSO)
- E. Categorical Industrial User (CIU)
- F. None of the Above

192. A discharge of untreated wastewater from a combined sewer system at a point prior to the headworks of a publicly owned treatment works. CSOs generally occur during wet weather (rainfall or snowfall).

- A. Combined Sewer Overflow (CSO)
- B. Approval Authority
- C. Best Professional Judgment (BPJ)
- D. Combined Wastestream Formula (CWF)
- E. Periodic Compliance Report
- F. None of the Above

193. The Director in an NPDES State with an approved State Pretreatment Program and the appropriate EPA Regional Administrator in a non-NPDES State or State without an approved pretreatment program.

- A. Combined Sewer Overflow (CSO)
- B. Approval Authority
- C. Best Professional Judgment (BPJ)
- D. Combined Wastestream Formula (CWF)
- E. Periodic Compliance Report
- F. None of the Above

194. Any substantive or procedural requirement related to Pretreatment, other than a National Pretreatment Standard, imposed on an Industrial User.

- A. Categorical Industrial User (CIU)
- B. Bypass
- C. Self-Monitoring
- D. Sanitary Sewer Overflow (SSO)
- E. Pretreatment Requirements
- F. None of the Above

195. Limitations on pollutant discharges to POTWs declared by the EPA in accordance with Section 307 of the Clean Water Act, that apply to specific process wastewater discharges of particular industrial categories.

- A. Combined Sewer Overflow (CSO)
- B. Approval Authority
- C. Best Professional Judgment (BPJ)
- D. Categorical Pretreatment Standards
- E. Periodic Compliance Report
- F. None of the Above

196. A report submitted by categorical industrial users (CIUs) within 180 days after the effective date of a pertinent categorical standard, or at least 90 days prior to commencement of discharge for new sources, which contains specific facility information.

- A. Detection Limit
- B. Clean Water Act (CWA)
- C. Chronic
- D. Code of Federal Regulations (CFR)
- E. Baseline Monitoring Report (BMR)
- F. None of the Above

197. Procedure for calculating alternative discharge limits at industrial facilities where a regulated wastestream from a categorical industrial user is combined with other wastestreams prior to treatment.

- A. Combined Sewer Overflow (CSO)
- B. Approval Authority
- C. Best Professional Judgment (BPJ)
- D. Combined Wastestream Formula (CWF)
- E. Periodic Compliance Report
- F. None of the Above

198. The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW.

- A. Daily Maximum Limitations
- B. Control Authority
- C. Pretreatment
- D. Industrial Waste Survey
- E. Enforcement Response Plan
- F. None of the Above



199. Sample composed of two or more discrete samples. The aggregate sample will reflect the average water quality covering the compositing or sample period.

- A. Inhibition Concentration
- B. Existing Source
- C. Effluent Limitations Guideline
- D. Conventional Pollutants
- E. Composite Sample
- F. None of the Above

200. Unregulated and dilute wastestreams (not regulated by categorical standards).

- A. Slug Discharge
- B. Non-Regulated Wastestream
- C. Interference
- D. Significant Industrial User (SIU)
- E. Time Proportional Composite Sample
- F. None of the Above

201. A source of indirect discharge.

- A. Industrial User (IU)
- B. Fundamentally Different Factors
- C. Flow Weighted Average Formula (FWA)
- D. Regulated Wastestream
- E. Self-Monitoring
- F. None of the Above

202. Any pollutant that is neither a toxic pollutant nor a conventional pollutant (e.g., manganese, ammonia, etc.)

- A. Compliance Schedule
- B. Continuous Discharge
- C. Nonconventional Pollutants
- D. Pretreatment Requirements
- E. Monthly Average
- F. None of the Above

203. Water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product, or finished product. The only pollutant contributed from the discharge is heat.

- A. Point Source
- B. Non-Contact Cooling Water
- C. Local Limits
- D. Concentration-based Limit
- E. 90-Day Final Compliance Report
- F. None of the Above

204. A discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

- A. Slug Discharge
- B. Non-Regulated Wastestream
- C. Interference
- D. Pass Through
- E. Time Proportional Composite Sample
- F. None of the Above

205. All users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW.

- A. Slug Discharge
- B. Non-Regulated Wastestream
- C. Interference
- D. Significant Industrial User (SIU)
- E. Time Proportional Composite Sample
- F. None of the Above

206. A POTW with an approved pretreatment program or the approval authority in the absence of a POTW pretreatment program.

- A. Daily Maximum Limitations
- B. Control Authority
- C. Pretreatment
- D. Industrial Waste Survey
- E. Enforcement Response Plan
- F. None of the Above

207. BOD, TSS, fecal coliform, oil and grease, and pH

- A. Inhibition Concentration
- B. Existing Source
- C. Effluent Limitations Guideline
- D. Conventional Pollutants
- E. Composite Sample
- F. None of the Above

208. Estimate of the toxicant concentration that would cause a given percent reduction (e.g., IC25) in a nonlethal biological measurement of the test organisms, such as reproduction or growth.

- A. Inhibition Concentration
- B. Existing Source
- C. Effluent Limitations Guideline
- D. Conventional Pollutants
- E. Composite Sample
- F. None of the Above

209. A discharge which, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal.

- A. Slug Discharge
- B. Non-Regulated Wastestream
- C. Interference
- D. Significant Industrial User (SIU)
- E. Time Proportional Composite Sample
- F. None of the Above

210. The minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure set forth in 40 CFR Part 136, Appendix B.

- A. Detection Limit
- B. Clean Water Act (CWA)
- C. Chronic
- D. Code of Federal Regulations (CFR)
- E. Baseline Monitoring Report (BMR)
- F. None of the Above

211. Specific discharge limits developed and enforced by POTWs upon industrial or commercial facilities to implement the general and specific discharge prohibitions listed in 40 CFR §§403.5(a)(1) and (b).

- A. Point Source
- B. Non-Contact Cooling Water
- C. Local Limits
- D. Concentration-based Limit
- E. 90-Day Final Compliance Report
- F. None of the Above

212. A schedule of remedial measures included in a permit or an enforcement order, including a sequence of interim requirements (for example, actions, operations, or milestone events) that lead to compliance with the CWA and regulations.

- A. Compliance Schedule
- B. Continuous Discharge
- C. Nonconventional Pollutants
- D. Pretreatment Requirements
- E. Monthly Average
- F. None of the Above

213. The maximum allowable discharge of pollutants during a 24-hour period. Where daily maximum limitations are expressed in units of mass.

- A. Daily Maximum Limitations
- B. Control Authority
- C. Pretreatment
- D. Industrial Waste Survey
- E. Enforcement Response Plan
- F. None of the Above

214. A sample from a wastestream that is as nearly identical as possible in composition to that in the larger volume of wastewater being discharged and typical of the discharge from the facility on a normal operating day.

- A. Grab Sample
- B. Fundamentally Different Factors
- C. Flow Weighted Average Formula (FWA)
- D. Representative Sample
- E. Self-Monitoring
- F. None of the Above

215. A procedure used to calculate alternative limits where wastestreams regulated by a categorical pretreatment standard and nonregulated wastestreams combine after treatment but prior to the monitoring point.

- A. Grab Sample
- B. Fundamentally Different Factors
- C. Flow Weighted Average Formula (FWA)
- D. Regulated Wastestream
- E. Self-Monitoring
- F. None of the Above

216. Combination of individual samples proportional to the flow of the wastestream at the time of sampling.

- A. Chain of Custody (COC)
- B. General Prohibitions
- C. Indirect Discharge or Discharge
- D. Best Management Practices (BMPs)
- E. Flow Proportional Composite Sample
- F. None of the Above

217. Case-by-case variance from categorical pretreatment standards based on the factors considered by the EPA in developing the pertinent category/subcategory being fundamentally different than factors relating to a specific industrial user.

- A. Grab Sample
- B. Fundamentally Different Factors
- C. Flow Weighted Average Formula (FWA)
- D. Regulated Wastestream
- E. Self-Monitoring
- F. None of the Above

218. Untreated or partially treated sewage overflows from a sanitary sewer collection system.

- A. Categorical Industrial User (CIU)
- B. Bypass
- C. Self-Monitoring
- D. Sanitary Sewer Overflow (SSO)
- E. Blowdown
- F. None of the Above

219. Sampling and analyses performed by a facility to ensure compliance with a permit or other regulatory requirements.

- A. Grab Sample
- B. Fundamentally Different Factors
- C. Flow Weighted Average Formula (FWA)
- D. Regulated Wastestream
- E. Self-Monitoring
- F. None of the Above

220. These regulations are published to adopt or revise a national standard prescribing restrictions on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources, in specific industrial categories (e.g., metal finishing, metal molding and casting, etc.).

- A. Inhibition Concentration
- B. Existing Source
- C. Effluent Limitations Guideline
- D. Conventional Pollutants
- E. Composite Sample
- F. None of the Above

221. Step-by-step enforcement procedures followed by Control Authority staff to identify, document, and respond to violations.

- A. Daily Maximum Limitations
- B. Control Authority
- C. Pretreatment
- D. Industrial Waste Survey
- E. Enforcement Response Plan
- F. None of the Above

222. The method used by a permit writer to develop technology-based limitations on a case-by-case basis using all reasonably available and relevant data.

- A. Combined Sewer Overflow (CSO)
- B. Approval Authority
- C. Best Professional Judgment (BPJ)
- D. Combined Wastestream Formula (CWF)
- E. Periodic Compliance Report
- F. None of the Above

223. The common name for the Federal Water Pollution Control Act. Public law 92-500; 33 U.S.C. 1251 et seq.; legislation which provides statutory authority for both NPDES and Pretreatment Programs.

- A. Detection Limit
- B. Clean Water Act (CWA)
- C. Chronic
- D. Code of Federal Regulations (CFR)
- E. Baseline Monitoring Report (BMR)
- F. None of the Above

224. The arithmetic average value of all samples taken in a calendar month for an individual pollutant parameter. The monthly average may be the average of all grab samples taken in a given calendar month, or the average of all composite samples taken in a given calendar month.

- A. Compliance Schedule
- B. Continuous Discharge
- C. Nonconventional Pollutants
- D. Pretreatment Requirements
- E. Monthly Average
- F. None of the Above

225. A report on compliance status submitted by categorical industrial users and significant noncategorical industrial users to the control authority at least semiannually (once every six months).

- A. Combined Sewer Overflow (CSO)
- B. Approval Authority
- C. Best Professional Judgment (BPJ)
- D. Combined Wastestream Formula (CWF)
- E. Periodic Compliance Report
- F. None of the Above

226. Any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fixture, container, rolling stock concentrated animal feeding operation vessel, or other floating craft from which pollutants are or may be discharged.

- A. Point Source
- B. Non-Contact Cooling Water
- C. Local Limits
- D. Concentration-based Limit
- E. 90-Day Final Compliance Report
- F. None of the Above

227. The introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c), or (d) of the Act.

- A. Chain of Custody (COC)
- B. General Prohibitions
- C. Indirect Discharge or Discharge
- D. Best Management Practices (BMPs)
- E. Flow Proportional Composite Sample
- F. None of the Above

228. Any source of discharge, the construction or operation of which commenced prior to the publication by the EPA of proposed categorical pretreatment standards.

- A. Inhibition Concentration
- B. Existing Source
- C. Effluent Limitations Guideline
- D. Conventional Pollutants
- E. Composite Sample
- F. None of the Above

229. The process of identifying and locating industrial users and characterizing their industrial discharge.

- A. Daily Maximum Limitations
- B. Control Authority
- C. Pretreatment
- D. Industrial Waste Survey
- E. Enforcement Response Plan
- F. None of the Above

230. Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water.

- A. Inhibition Concentration
- B. Existing Source
- C. Effluent Limitations Guideline
- D. Conventional Pollutants
- E. Pollutant
- F. None of the Above

**Topic 8 - Pretreatment and Wastewater Sampling Overview**  
**pH Section**

231. In chemistry, pH is a measure of the acidity or basicity of an aqueous solution. Solutions with a pH less than 7 are said to be acidic and solutions with a pH greater than 7 are basic or alkaline. Pure water has a pH very close to?

- A. 5
- B. 6
- C. 7
- D. 7.7
- E. 7.5
- F. None of the Above

232. Which of the following terms are determined using a concentration cell with transference, by measuring the potential difference between a hydrogen electrode and a standard electrode such as the silver chloride electrode?

- A. Primary pH standard values
- B. Alkalinity
- C. pH
- D. pH measurement(s)
- E. Measurement of pH
- F. None of the Above

233. Which of the following terms are important in medicine, biology, chemistry, agriculture, forestry, food science, environmental science, oceanography, civil engineering, chemical engineering, nutrition, water treatment & water purification, and many other applications?

- A. Primary pH standard values
- B. Alkalinity
- C. pH
- D. pH measurement(s)
- E. Measurement of pH
- F. None of the Above

234. Mathematically, pH is the negative logarithm of the activity of the (solvated) hydronium ion, more often expressed as the measure of the?

- A. Electrons
- B. Alkalinity
- C. Hydronium ion concentration
- D. Cation measurement(s)
- E. Ions
- F. None of the Above

235. 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
- B. Alkalinity
- C. pH
- D. Determining values
- E. Measurement of pH
- F. None of the Above

236. The pH scale is logarithmic and therefore pH is?

- A. Universal indicator
- B. A dimensionless quantity
- C. Spectrophotometer
- D. Excess of alkaline earth metal concentrations
- E. A set of non-linear simultaneous equations
- F. None of the Above

237. Measuring alkalinity is important in determining a stream's ability to neutralize acidic pollution from rainfall or wastewater. It is one of the best measures of the sensitivity of the stream to acid inputs. There can be long-term changes in the \_\_\_\_\_ of rivers and streams in response to human disturbances.

- A. Acid
- B. Alkalinity
- C. pH
- D. pH measurement(s)
- E. Bond formation
- F. None of the Above

238. pH is defined as the decimal logarithm of the reciprocal of the \_\_\_\_\_,  $a_{H^+}$ , in a solution.

- A. Hydrogen ion activity
- B. Ion-selective electrode(s)
- C. (Solvated) hydronium ion
- D. Brønsted–Lowry acid–base theory
- E. Acid-base behavior
- F. None of the Above

239. 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
- B. pH
- C. Spectrophotometer
- D. Excess of alkaline earth metal concentrations
- E. A set of non-linear simultaneous equations
- F. None of the Above

240. Alkalinity is the name given to the quantitative capacity of an aqueous solution to neutralize an?

- A. Acid
- B. Base
- C. pH
- D. pH measurement(s)
- E. Bond formation
- F. None of the Above

241. 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
- B. Colorwheel measurement
- C. Spectrophotometer
- D. Visual comparison
- E. A test
- F. None of the Above

242. The calculation of the pH of a solution containing acids and/or bases is an example of a chemical speciation calculation, that is, a mathematical procedure for calculating the concentrations of all chemical species that are present in the solution. The complexity of the procedure depends on the?

- A. Universal indicator
- B. pH
- C. Nature of the solution
- D. Excess of alkaline earth metal concentrations
- E. A set of non-linear simultaneous equations
- F. None of the Above

243. Under normal circumstances this means that the concentration of hydrogen ions in acidic solution can be taken to be equal to the concentration of the acid. The pH is then equal to minus the logarithm of?

- A. The concentration value
- B. The pH
- C. The Spectrophotometer
- D. Excess of alkaline earth metal concentrations
- E. A set of non-linear simultaneous equations
- F. None of the Above

244. Alkalinity of water is its acid-neutralizing capacity. It is the sum of all the titratable bases. The measured value may vary significantly with the?

- A. Acid
- B. Alkalinity
- C. pH
- D. pH measurement(s)
- E. End-point pH
- F. None of the Above

245. For strong acids and bases no calculations are necessary except in extreme situations. The pH of a solution containing a weak acid requires the solution of a quadratic equation. The pH of a solution containing a weak base may require the?

- A. Solution of a cubic equation
- B. pH
- C. Spectrophotometer
- D. Excess of alkaline earth metal concentrations
- E. A set of non-linear simultaneous equations
- F. None of the Above

246. Alkalinity is a measure of this missing term and can be interpreted in terms of specific substances only when the chemical composition of the sample is known.

- A. Universal indicator
- B. pH
- C. An aggregate property of water
- D. Excess of alkaline earth metal concentrations
- E. A set of non-linear simultaneous equations
- F. None of the Above

247. More precise measurements are possible if the color is measured spectro-photometrically, using a?

- A. Universal indicator
- B. Colorimeter of spectrophotometer
- C. Spectrophotometer
- D. Excess of alkaline earth metal concentrations
- E. A set of non-linear simultaneous equations
- F. None of the Above

248. Alkalinity is significant in many uses and treatments of natural waters and wastewaters. Because the alkalinity of this missing term it is taken as an indication of the concentration of these constituents.

- A. Acid
- B. Alkalinity
- C. pH
- D. pH measurement(s)
- E. Bond formation
- F. None of the Above

249. For strong acids and bases no calculations are necessary except in extreme situations. The pH of a solution containing a weak acid requires?

- A. The concentration value
- B. The solution of a quadratic equation
- C. The Spectrophotometer
- D. Excess of alkaline concentrations
- E. A set of simultaneous equations
- F. None of the Above

250. Alkalinity in excess of this term is significant in determining the suitability of water for irrigation.

- A. 8
- B. pH of 7
- C. 3
- D. Alkaline earth metal concentrations
- E. Non-linear simultaneous equations
- F. None of the Above

251. The calculation of the pH of a solution containing acids and/or bases is an example of a \_\_\_\_\_ calculation, that is, a mathematical procedure for calculating the concentrations of all chemical species that are present in the solution

- A. Universal indicator
- B. Colorwheel measurement
- C. Spectrophotometer
- D. Visual comparison
- E. Chemical speciation
- F. None of the Above

252. Since pH is a logarithmic scale, a difference of one pH unit is equivalent to a this term difference in hydrogen ion concentration

- A. 1
- B. 2
- C. 5
- D. 10
- E. 100
- F. None of the Above

253. Which of the following terms measurements are used in the interpretation and control of water and wastewater treatment processes?

- A. Acid
- B. Alkalinity
- C. pH
- D. Chemical ion
- E. Hydrogen bond formation
- F. None of the Above

254. Which of the following terms are compounds that, for practical purposes, are completely dissociated in water?

- A. Strong acids and bases
- B. Strong bases
- C. Chemical ions in chains
- D. Strong bases and weak acids
- E. Weak acids and weak bases
- F. None of the Above

255. The pH of a solution containing a \_\_\_\_\_ may require the solution of a cubic equation. The general case requires the solution of a set of non-linear simultaneous equations.

- A. Strong acids and bases
- B. Strong bases
- C. Weak bases
- D. Strong bases and weak acids
- E. Weak acids and weak bases
- F. None of the Above

256. Sodium hydroxide, NaOH, is an example of a?

- A. Strong acids and bases
- B. Strong base
- C. Weak base
- D. Strong bases and weak acids
- E. Weak acids and weak bases
- F. None of the Above

### **Topic 9 - Standard and Special Conditions Industrial User's Permit**

257. The standard conditions in \_\_\_\_\_ should set forth the administrative and procedural requirements that are pertinent to all Industrial Users and therefore should be repeated verbatim in every permit.

- A. An Industrial User's permit
- B. Standard conditions
- C. Control Authority
- D. Effluent data and upset
- E. All applicable federal Pretreatment Standards
- F. None of the Above

258. Which of the following terms are an essential element of every permit. Unless there are changes to the Control Authority's legal authority, the standard conditions might be developed only once?

- A. Evidence of fraud
- B. Control Authority
- C. General discharge prohibitions
- D. Standard conditions
- E. Control Authority's sewer use ordinance
- F. None of the Above

259. Standard conditions often reiterate many provisions contained in the sewer use ordinance. Such reiteration is the best way of notifying the Industrial User of its responsibilities and the procedural and \_\_\_\_\_.

- A. An Industrial User's permit
- B. Standard conditions
- C. Control Authority
- D. Administrative aspects of the permit program
- E. All applicable federal Pretreatment Standards
- F. None of the Above



260. Standard conditions outline the general duties and responsibilities of each Industrial User. The order, language, and format of the standard conditions in permits are a matter of the \_\_\_\_\_.

- A. Control Authority's discretion
- B. Control Authority
- C. General discharge prohibitions
- D. Standard conditions
- E. Control Authority's sewer use ordinance
- F. None of the Above

261. The Control Authority should have its attorney review the conditions before they are used in permits to ensure that there is adequate authority in the sewer use ordinance for each provision and that they are understandable and \_\_\_\_\_.

- A. An Industrial User's permit
- B. Standard conditions
- C. Free of legal loopholes
- D. Effluent data and upset
- E. All applicable federal Pretreatment Standards
- F. None of the Above

### Proper Disposal of Pretreatment Sludges and Hazardous Wastes

262. The Control Authority can also condense or expand provisions from its sewer use ordinance and use them as \_\_\_\_\_ as long as the conditions in the control mechanism are consistent with the provisions in the sewer use ordinance.

- A. Evidence of fraud
- B. Control Authority
- C. General discharge prohibitions
- D. Standard conditions
- E. Control Authority's sewer use ordinance
- F. None of the Above

Some of the standard conditions ordinarily contained in an Industrial User's permit are below.

263. Definitions of terms used in the permit. Terms that might need to be defined include composite and grab samples; instantaneous measurement; 4-day average, monthly average, or 30-day average; slug discharge; and \_\_\_\_\_.

- A. An Industrial User's permit
- B. Standard conditions
- C. Control Authority
- D. Effluent data and upset
- E. All applicable federal Pretreatment Standards
- F. None of the Above

264. The Industrial User's duty to comply with all provisions of the permit and the local sewer use ordinance, including the duty to comply with the \_\_\_\_\_. (In some cases, the general discharge prohibitions may be included verbatim as a separate standard condition.)

- A. Evidence of fraud
- B. Control Authority
- C. General discharge prohibitions
- D. Standard conditions
- E. Control Authority's sewer use ordinance
- F. None of the Above

265. The Industrial User's duty to comply with all valid federal Pretreatment Standards including those that become effective during the term of the permit and that compliance with the permit is not a defense for \_\_\_\_\_.

- A. An Industrial User's permit
- B. Standard conditions
- C. Control Authority
- D. Violation of applicable federal Pretreatment Standards
- E. All applicable federal Pretreatment Standards
- F. None of the Above

266. The Industrial User's duty to provide information to the \_\_\_\_\_. Within a reasonable time, the Industrial User is required to submit any information that the Control Authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit.

- A. Evidence of fraud
- B. Control Authority
- C. General discharge prohibitions
- D. Standard conditions
- E. Control Authority's sewer use ordinance
- F. None of the Above

267. The Industrial User's duty to mitigate or \_\_\_\_\_ to lessen the duration and severity of any permit violation.

- A. An Industrial User's permit
- B. Standard conditions
- C. To take all reasonable measures
- D. Effluent data and upset
- E. All applicable federal Pretreatment Standards
- F. None of the Above

268. The POTW's authority to modify or revise \_\_\_\_\_ at any time during the permit's effective term if certain conditions (such as new information, new federal standards, or evidence of fraud in the permit application) arise.

- A. Evidence of fraud
- B. An Industrial User's permit
- C. General discharge prohibitions
- D. Standard conditions
- E. Control Authority's sewer use ordinance
- F. None of the Above

269. Notice that the permit does not convey \_\_\_\_\_ of any sort, or any exclusive privilege.

- A. An Industrial User's permit
- B. Standard conditions
- C. Any property rights
- D. Effluent data and upset
- E. All applicable federal Pretreatment Standards
- F. None of the Above

270. Need to halt or reduce activity not a defense. It must not be a defense for an Industrial User in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain \_\_\_\_\_.

- A. Evidence of fraud
- B. Control Authority
- C. General discharge prohibitions
- D. Compliance with the conditions of the permit
- E. Control Authority's sewer use ordinance
- F. None of the Above

271. Notice that the permit can be revoked if violations of permit conditions or local ordinances are identified or the \_\_\_\_\_ by the Industrial User is determined.

- A. Violations of permit conditions
- B. Right to challenge
- C. Sampling events
- D. Falsification or misrepresentation of information
- E. Proper disposal or treatment of sludges
- F. None of the Above

272. Nontransferability of the permit if there is a change of owner or operator. The permit is issued to a specific entity and cannot be transferred by \_\_\_\_\_.

- A. A severability clause
- B. The Industrial User
- C. Effluent violation
- D. Dilution of Industrial User wastewaters
- E. Proper operation and maintenance
- F. None of the Above

273. Which of the following terms provided to the Industrial User within a limited period after permit issuance after which the right to challenge or appeal administratively or in a court of law is deemed waived?

- A. Violations of permit conditions
- B. Right to challenge
- C. Right of appeal
- D. Duty to reapply for a new permit
- E. Proper disposal or treatment of sludges
- F. None of the Above

274. A severability clause that allows the remaining parts of a permit to remain in force if any portion of the permit is found invalid and subsequently is suspended or \_\_\_\_\_.

- A. A severability clause
- B. Revoked by a court of law
- C. Effluent violation
- D. Dilution of Industrial User wastewaters
- E. Proper operation and maintenance
- F. None of the Above

275. \_\_\_\_\_ or duty to reapply for a new permit before expiration of the current permit.  
A. Violations of permit conditions                      D. Duty to reapply for a new permit  
B. Right to challenge    E. The Industrial User's responsibility  
C. Sampling events    F. None of the Above

276. Provisions requiring the installation and proper operation and maintenance of \_\_\_\_\_ by the Industrial User, including proper calibration and maintenance of all sampling equipment.  
A. Wastewater treatment facilities                      D. Dilution of Industrial User wastewaters  
B. Nontransferability of the permit                      E. Proper operation and maintenance  
C. Effluent violation    F. None of the Above

277. Provisions requiring the proper disposal or treatment of sludges and other wastes (e.g., spent chemicals) generated at \_\_\_\_\_ so as to prevent the discharge of such materials to the POTW.  
A. Violations of permit conditions                      D. Duty to reapply for a new permit  
B. Right to challenge    E. The Industrial User's facility  
C. Sampling events    F. None of the Above

278. A condition that prohibits the \_\_\_\_\_ as a partial or complete substitute for treatment of the wastewaters before discharge to the POTW.  
A. A severability clause    D. Dilution of Industrial User wastewaters  
B. Nontransferability of the permit                      E. Proper operation and maintenance  
C. Effluent violation    F. None of the Above

**Monitoring requirements (in addition to those specified in other portions of the permit) including:**

279. An outline of specific records to be maintained during \_\_\_\_\_ (i.e., name of individuals who performed the sampling; date, time, sample method used, and location of sampling; name of the individuals who performed the analysis; date and time of analyses; analytical method used; and the results of such analysis).  
A. Violations of permit conditions                      D. Duty to reapply for a new permit  
B. Right to challenge    E. Proper disposal or treatment of sludges  
C. Sampling events    F. None of the Above

280. The requirement to follow \_\_\_\_\_ in 40 CFR Part 136, or other EPA-approved methods.  
A. EPA-approved sampling methods                      D. Dilution of Industrial User wastewaters  
B. Nontransferability of the permit                      E. Proper operation and maintenance  
C. Effluent violation    F. None of the Above

**Topic 10 - Enforcement**

**IU Compliance and Enforcement**

281. In addition to requirements for permitting, sampling, and inspecting IUs, the General Pretreatment Regulations also require \_\_\_\_\_ to review IU reports and plans, and respond to instances of IU noncompliance in a timely, fair, and consistent manner.  
A. POTWs    D. An Enforcement Response Plan (ERP)  
B. Control Authorities    E. Instances of IU noncompliance  
C. General Pretreatment Regulations                      F. None of the Above

282. Enforcement of pretreatment requirements is a critical element of the Pretreatment Program, but in the past extenuating circumstances may have prevented \_\_\_\_\_ from taking adequate enforcement.

- A. Control Authorities
- B. EPA
- C. IU compliance
- D. IU noncompliance
- E. POTWs
- F. None of the Above

283. The EPA declared regulations in 1990 (55 FR 30082) that require all \_\_\_\_\_ with approved pretreatment programs to adopt and implement an Enforcement Response Plan (ERP).

- A. POTWs
- B. All violations
- C. General Pretreatment Regulations
- D. An Enforcement Response Plan (ERP)
- E. Instances of IU noncompliance
- F. None of the Above

284. ERP regulations, at 40 CFR §403.8(f)(5), established a framework for POTWs to formalize procedures for investigating and responding to instances of \_\_\_\_\_.

- A. Control Authorities
- B. EPA
- C. IU compliance
- D. IU noncompliance
- E. Extenuating circumstances
- F. None of the Above

285. With an approved \_\_\_\_\_ in place, POTWs can enforce against IUs on a more objective basis and minimize outside pressures.

- A. POTWs
- B. All violations
- C. General Pretreatment Regulations
- D. ERP
- E. Instances of IU noncompliance
- F. None of the Above

### **IU Compliance**

286. To evaluate IU compliance, Control Authorities must first identify pertinent requirements for each IU. In general, IU reports and \_\_\_\_\_ are the basis for POTW evaluation of IU compliance.

- A. Control Authorities
- B. EPA
- C. IU compliance
- D. IU noncompliance
- E. POTW monitoring activities
- F. None of the Above

287. Which of the following terms, discrepancies, deficiencies, and lateness are all violations that must be resolved?

- A. Discharge permit limit exceedances
- B. All violations
- C. General Pretreatment Regulations
- D. An Enforcement Response Plan (ERP)
- E. Instances of IU noncompliance
- F. None of the Above

288. To ensure enforcement response is appropriate and the \_\_\_\_\_ are not arbitrary or capricious, the EPA strongly recommends that an Enforcement Response Guide (ERG) be included as part of the approved ERP.

- A. Control Authorities
- B. Control Authority actions
- C. IU compliance
- D. IU noncompliance
- E. Extenuating circumstances
- F. None of the Above

### **Criminal Prosecution**

289. This type of enforcement is a \_\_\_\_\_ where sufficient admissible evidence exists to prove beyond a reasonable doubt that a person has willfully or negligently violated pretreatment standards or that a person has knowingly made a false statement regarding any report, application, record, or other document required by the General Pretreatment Regulations.

- A. Formal judicial process
- B. All violations
- C. General Pretreatment Regulations
- D. An Enforcement Response Plan (ERP)
- E. Instances of IU noncompliance
- F. None of the Above

290. Control Authorities must have the legal authority to seek or assess \_\_\_\_\_ of at least \$1,000 per day for each violation.

- A. Control Authorities
- B. Civil or criminal penalties
- C. IU compliance
- D. IU noncompliance
- E. Extenuating circumstances
- F. None of the Above

291. Examples of \_\_\_\_\_ include falsification of data and tampering with sampling results or equipment.

- A. Criminal violations
- B. All violations
- C. General Pretreatment Regulations
- D. An Enforcement Response Plan (ERP)
- E. Instances of IU noncompliance
- F. None of the Above

### **Termination of Service (Revocation of Permit)**

292. These actions may be pursued by Control Authorities to immediately halt an actual or threatened discharge to the POTW that may represent an endangerment to the public health, the environment, or the \_\_\_\_\_. Use of these remedies may also be used in bringing recalcitrant users into compliance.

- A. Approval Authority
- B. Recalcitrant users
- C. Control Authorities
- D. Future violations
- E. POTW
- F. None of the Above

293. Control Authority responses and IU responses (or lack thereof) should be documented and include a record of any direct contact with the IU to attempt to resolve the \_\_\_\_\_.

- A. Consent Order
- B. Noncompliance
- C. IU response(s)
- D. Continued, noncompliance
- E. Enforcing regulation(s)
- F. None of the Above

294. Control Authorities must take timely and effective enforcement against violators. \_\_\_\_\_ may result in the Approval Authority enforcing directly against the IU and/or the Control Authority.

- A. Approval Authority
- B. Recalcitrant users
- C. Control Authorities
- D. Future violations
- E. Unresolved IU noncompliance
- F. None of the Above

295. The EPA may also take enforcement action where it deems action by the State or the Control Authority is inappropriate. An Approval Authority will routinely review the overall performance of a Control Authority in monitoring IUs, identifying violations, and in \_\_\_\_\_.

- A. Consent Order
- B. Citizens
- C. IU response(s)
- D. Continued, noncompliance
- E. Enforcing regulation(s)
- F. None of the Above

296. Performance will be evaluated based on POTW self-monitoring data, written enforcement response plans, audits, inspections, and \_\_\_\_\_. Therefore, it is essential for Control Authorities to effectively manage program information to demonstrate proper implementation.

- A. Approval Authority
- B. Recalcitrant users
- C. Control Authorities
- D. Future violations
- E. Pretreatment program reports
- F. None of the Above

297. Section 505 of the CWA allows citizens to file suit against a Control Authority that has failed to implement its approved pretreatment program as required by its\_\_\_\_\_.

- A. Consent Order
- B. NPDES permit
- C. IU response(s)
- D. Continued, noncompliance
- E. Enforcing regulation(s)
- F. None of the Above

298. The Control Authority may be fined as well as required to enforce against violations of pretreatment standards and requirements in \_\_\_\_\_.

- A. A court order
- B. Recalcitrant users
- C. Control Authorities
- D. Future violations
- E. POTW self-monitoring data
- F. None of the Above

### **Administrative Tools**

299. Informal meetings - Used to obtain an IU's commitment to comply with their pretreatment obligations or to inform the IU of \_\_\_\_\_available for unresolved and/or continued, noncompliance.

- A. Consent Order
- B. Stronger enforcement mechanisms
- C. IU response(s)
- D. Continued, noncompliance
- E. Enforcing regulation(s)
- F. None of the Above

300. Warning letter or Notice of Violation (NOV) - Written notice to the IU in response to a \_\_\_\_\_ . These notices should request an explanation of the noncompliance and measures that will be taken to eliminate future violations.

- A. Approval Authority
- B. Recalcitrant users
- C. Control Authorities
- D. Future violations
- E. Violation of pretreatment standards or requirements
- F. None of the Above

301. Administrative orders and compliance schedules - These require an IU to "\_\_\_\_\_" to the Control Authority as to why formal enforcement action should not be taken and/or sewer service discontinued, or actions that will be taken to comply with pretreatment standards or requirements. Orders as such may be negotiated (i.e., Consent Order) or issued at the reasonable discretion of the Control Authority (i.e., Compliance Order).

- A. Consent Order
- B. Show cause
- C. Cease and Desist Order
- D. Continued, noncompliance
- E. Enforcing regulation(s)
- F. None of the Above

302. For more egregious or serious violations, the Control Authority may issue a \_\_\_\_\_.

- A. Consent Order
- B. Show cause
- C. Cease and Desist Order
- D. Continued, noncompliance
- E. Enforcing regulation(s)
- F. None of the Above

303. Administrative fines - Assessed by Control Authorities against IUs for violations and intended to recapture partial or full economic benefit for the \_\_\_\_\_.

- A. Consent Order
- B. Show cause
- C. Cease and Desist Order
- D. Continued, noncompliance
- E. Noncompliance and to deter future violations
- F. None of the Above

304. Civil suits - Formal process of filing lawsuits against IUs to correct violations and to obtain \_\_\_\_\_. Civil penalty amounts are generally limited through State or municipal laws. However, 40 CFR §403.8(f)(1)(vi) requires that Control Authorities have the legal authority to seek or assess civil or criminal penalties of at least \$1,000 per day for each violation.

- A. Consent Order
- B. Show cause
- C. Cease and Desist Order
- D. Penalties for violations
- E. Noncompliance and to deter future violations
- F. None of the Above

305. A civil suit for injunctive relief may be used when the IU is unlikely to successfully execute the steps that the Control Authority believes are necessary to achieve or maintain compliance, when the violation is serious enough to warrant \_\_\_\_\_ to deter future similar violations, or when the danger presented by an IU's lengthy negotiation of a settlement is intolerable.

- A. Compliance
- B. Cease and Desist Order
- C. Attaining final compliance
- D. Pretreatment effluent limit
- E. Court action
- F. None of the Above

306. Surcharges are not penalties or fines. Surcharges are intended to recoup the cost of treatment of wastes by the POTW and must not be used to allow \_\_\_\_\_ that cause interference or pass through.

- A. Interference or pass through
- B. Daily maximum
- C. Any discharge of a pollutant
- D. More egregious or serious violations
- E. Discharges of toxic pollutants
- F. None of the Above

**Definition of Significant Noncompliance (SNC) An IU is in SNC if its violation meets one or more of the following criteria (40 CFR 403.8(f)(2)(vii):**

307. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the \_\_\_\_\_.

- A. Compliance
- B. Same pollutant parameter
- C. Attaining final compliance
- D. Pretreatment effluent limit
- E. Local pretreatment program
- F. None of the Above

308. Which of the following terms is defined here as those in which thirty-three percent or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the daily maximum or the average limit multiplied by the pertinent TRC (TRC = 1.4 for BOD 5, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH)?

- A. Interference or pass through
- B. Daily maximum
- C. Any discharge of a pollutant
- D. Technical Review Criteria (TRC) violations
- E. Obtain penalties for violations
- F. None of the Above

309. Any other violation of a pretreatment effluent limit (daily maximum or longer-term average) that the Control Authority determines has caused, alone or in combination with other discharges, \_\_\_\_\_ (including endangering the health of POTW personnel or the general public).

- A. Compliance
- B. Cease and Desist Order
- C. Interference or pass through
- D. Pretreatment effluent limit
- E. Local pretreatment program
- F. None of the Above

310. Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or \_\_\_\_\_.

- A. Compliance
- B. Cease and Desist Order
- C. Attaining final compliance
- D. Pretreatment effluent limit
- E. Local pretreatment program
- F. None of the Above

311. Any discharge of a pollutant that has caused \_\_\_\_\_, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority under 40 CFR § 403.8(f)(1)(vi)(B) of this section to halt or prevent such a discharge.

- A. Interference or pass through
- B. Daily maximum
- C. Any discharge of a pollutant
- D. More egregious or serious violations
- E. Imminent endangerment to human health
- F. None of the Above

312. Which of the following terms in which the Control Authority determines will adversely affect the operation or implementation of the local pretreatment program?

- A. Compliance
- B. Cease and Desist Order
- C. Attaining final compliance
- D. Pretreatment effluent limit
- E. Any other violation or group of violations
- F. None of the Above

## Topic 11 - POTW Hauled & Hazardous Wastes Requirements

### Domestic Septage

313. Domestic septage can be partially digested, higher in metals concentrations than \_\_\_\_\_, or contain small amounts of household contaminants (e.g., cleaners).

- A. Normal domestic wastes
- B. Domestic sewage
- C. Hauled waste(s)
- D. NPDES permit requirement(s)
- E. Non-hazardous waste(s)
- F. None of the Above

314. Disinfectants used in portable toilets have the potential to impact POTW operations. Receipt of \_\_\_\_\_ (as defined in the Resource Conservation and Recovery Act (**RCRA**)) may not only impact POTW operations, but subject the POTW to additional reporting requirements.

- A. Hauled waste(s)
- B. Hazardous wastes
- C. Sewage or domestic waste
- D. Hauled process wastes
- E. Hauled hazardous waste
- F. None of the Above

315. The Domestic Sewage Exclusion, specified in 40 CFR §261.4 (a)(1)(ii), provides that hazardous wastes mixed with \_\_\_\_\_ are exempt from the RCRA waste regulations.

- A. Grease trap wastes
- B. Domestic sewage
- C. Hauled waste(s)
- D. NPDES permit requirement(s)
- E. Non-hazardous waste(s)
- F. None of the Above



316. Hazardous wastes received by truck or rail (or dedicated pipe) are not exempt from the regulations. POTWs that accept \_\_\_\_\_ from these sources are granted “permit by rule” status under RCRA (40 CFR §270.60(c)) provided that certain requirements are met.

- A. Hauled waste(s)
- B. Hazardous wastes
- C. Sewage or domestic waste
- D. Hauled process wastes
- E. Hauled hazardous waste
- F. None of the Above

317. The two most significant conditions are that the POTW must be in compliance with all of its NPDES permit requirements and the waste must comply with all Federal, State, and local pretreatment requirements. Nationwide, very few POTWs are knowingly accepting \_\_\_\_\_.

- A. Grease trap wastes
- B. Domestic sewage
- C. Hauled waste(s)
- D. Hauled hazardous waste
- E. Non-hazardous waste(s)
- F. None of the Above

318. POTWs should be aware that \_\_\_\_\_ from facilities subject to Federal categorical pretreatment standards are still subject to those standards. This condition highlights the need for POTWs to have a clear understanding of the source of the waste since pertinent standards may be based on the origin of that waste.

- A. Hauled waste(s)
- B. Hazardous wastes
- C. Sewage or domestic waste
- D. Hauled process wastes
- E. Hauled hazardous waste
- F. None of the Above

**Other concerns for POTWs that accept hauled wastes include:**

Illegal dischargers may be discharging toxic pollutants that can pass through or interfere with the POTW operations;

319. Which of the following terms can coat and inhibit POTW treatment operations?

- A. Grease trap wastes
- B. Domestic sewage
- C. Hauled waste(s)
- D. NPDES permit requirement(s)
- E. Non-hazardous waste(s)
- F. None of the Above

320. Local limits may not account for pollutants in \_\_\_\_\_.

- A. Hauled waste(s)
- B. Hazardous wastes
- C. Sewage or domestic waste
- D. Hauled process wastes
- E. Hauled hazardous waste
- F. None of the Above

321. Hauled wastes may contain pollutants for which local limits do not exist; thus, the impacts of this \_\_\_\_\_ are not readily identifiable.

- A. Grease trap wastes
- B. Domestic sewage
- C. Waste
- D. NPDES permit requirement(s)
- E. Non-hazardous waste(s)
- F. None of the Above

322. Which of the following terms may be unmixed and/or highly concentrated?

- A. Hauled waste(s)
- B. Hazardous wastes
- C. Sewage or domestic waste
- D. Hauled process wastes
- E. Hauled hazardous waste
- F. None of the Above

### Resource Conservation and Recovery Act Introduction

323. The Resource Conservation and Recovery Act (RCRA) authorizes EPA to control hazardous wastes, including the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also provides EPA a framework for managing of \_\_\_\_\_.

- A. Grease trap wastes
- B. Domestic sewage
- C. Hauled waste(s)
- D. NPDES permit requirement(s)
- E. Non-hazardous waste(s)
- F. None of the Above

324. POTWs and industrial users that generate \_\_\_\_\_ and POTWs accepting hazardous waste must comply with both CWA and RCRA requirements.

- A. Hauled waste(s)
- B. Hazardous waste
- C. Sewage or domestic waste
- D. Hauled process wastes
- E. Hauled hazardous waste
- F. None of the Above

### Biosolids – Sewage Sludge

325. Biosolids are treated sewage sludge and regulated by 40 CFR Part 503. The general pretreatment regulations, 40 CFR Part 403 establish standards and mechanisms for responsible entities to control \_\_\_\_\_ that might pass through or interfere with publicly owned treatment works (POTW) treatment processes or contaminate sewage sludge.

- A. New waste
- B. Pollutants
- C. Hauled waste
- D. Predetermined percentage of these wastes
- E. More consistent waste types
- F. None of the Above

### Hauled Waste Requirements

326. The term “hauled waste” refers to the wastes’ transportation method to the POTW. Hauled waste might be \_\_\_\_\_, or it might include non-domestic waste, or a combination of both types of waste. If an IU has its wastes hauled to the POTW, the waste must still comply with its pertinent pretreatment standards and requirements.

- A. Hauled waste(s)
- B. Hazardous wastes
- C. Sewage or domestic waste
- D. Hauled process wastes
- E. Hauled hazardous waste
- F. None of the Above

327. Wastes are hauled to POTWs for several reasons. By far, the majority of hauled waste is \_\_\_\_\_. Since these wastes are domestic in nature, treatment at a POTW is the most appropriate disposal method.

- A. Domestic septage
- B. Hazardous wastes
- C. More consistent waste types
- D. Hauled process wastes
- E. Hauled hazardous waste
- F. None of the Above

### POTW waste hauler control programs should address the following six elements:

328. POTWs may require haulers or generators of hauled waste to perform a treatability study to demonstrate the \_\_\_\_\_.

- A. Concentration of discharges
- B. Unanalyzed samples
- C. Illegal discharges
- D. Effectiveness of treatment on this waste
- E. Haulers or generators of hauled waste
- F. None of the Above

329. POTWs must evaluate the impacts of this waste when evaluating the \_\_\_\_\_ as well as when developing or revising local limits.

- A. New waste
- B. Local limits
- C. Hauled waste
- D. Predetermined percentage of these wastes
- E. Adequacy of local limits
- F. None of the Above

330. Permitting - A permit is the most direct and efficient method of regulating waste haulers. Permits provide the opportunity to monitor and regulate haulers based on the nature of the hauled waste and the potential impacts of that waste on the POTW. Unique permit conditions may include: right of refusal, \_\_\_\_\_, discharge time limitations, and manifesting requirements.

- A. Concentration of discharges
- B. Unanalyzed samples
- C. Illegal discharges
- D. Daily flow limitations
- E. Haulers or generators of hauled waste
- F. None of the Above

331. Discharge Point - As specified in the General Pretreatment Regulations, \_\_\_\_\_ can only be discharged at points designated by the POTW. This option is to provide the POTW with the ability to control and observe these discharges at specified locations, thereby minimizing the potential for adverse impacts.

- A. New waste
- B. Local limits
- C. Hauled waste
- D. Predetermined percentage of these wastes
- E. More consistent waste types
- F. None of the Above

332. Monitoring - The POTW should institute a monitoring program to evaluate the nature and \_\_\_\_\_.

- A. Concentration of discharges
- B. Unanalyzed samples
- C. Illegal discharges
- D. Discharge time limitations
- E. Haulers or generators of hauled waste
- F. None of the Above

333. Both POTW monitoring and hauler self-monitoring may be appropriate. Many POTWs require that \_\_\_\_\_ must be sampled, but analyses are only performed on a predetermined percentage of these wastes or when problems occur.

- A. New waste
- B. Local limits
- C. Hauled waste
- D. Predetermined percentage of these wastes
- E. All loads of hauled waste
- F. None of the Above

334. Unanalyzed samples are refrigerated and kept for several weeks or months until the POTW is certain that the \_\_\_\_\_.

- A. Concentration of discharges
- B. Unanalyzed samples
- C. Illegal discharges
- D. Waste has not impacted the POTW
- E. Haulers or generators of hauled waste
- F. None of the Above

335. Which of the following terms may also be dependent on the variability of the waste? Each load from a hauler that delivers highly variable loads may have to be sampled and analyzed; whereas, a much smaller percentage may be appropriate for more consistent waste types.

- A. New waste
- B. The frequency of sampling
- C. Hauled waste
- D. Predetermined percentage of these wastes
- E. More consistent waste types
- F. None of the Above

336. Hauler Documentation - The POTW should require waste haulers to document the source of wastes being discharged, potentially including \_\_\_\_\_.

- A. Concentration of discharges
- B. Manifests
- C. Illegal discharges
- D. Discharge time limitations
- E. Haulers or generators of hauled waste
- F. None of the Above

337. Manifests should include general hauler information, information on the waste generator (e.g., name, address, and phone number), the type of wastes collected, volumes, known or suspected pollutants, and certification that the load is not a \_\_\_\_\_.

- A. New waste
- B. Local limits
- C. Hauled waste
- D. Predetermined percentage of these wastes
- E. Hazardous waste
- F. None of the Above

338. Legal Authority - POTWs should implement procedures to identify and eliminate illegal discharges. Procedures may include \_\_\_\_\_, surveillance of suspected illegal discharge points, education of industries regarding hauled waste, increased enforcement, and public awareness of illegal dumping.

- A. Concentration of discharges
- B. Unanalyzed samples
- C. Illegal discharges
- D. Discharge time limitations
- E. Periodic sewer line sampling
- F. None of the Above

### **Solid Waste**

339. A POTW can assume that it is receiving \_\_\_\_\_ by truck or rail if the wastes are accompanied by the hazardous waste manifest used in the RCRA program.

- A. Hazardous wastes
- B. Federal regulations
- C. Only domestic waste
- D. Characteristic waste and a nonhazardous solid waste
- E. RCRA requirements
- F. None of the Above

340. If the waste hauler does not provide such a manifest, the POTW might still wish to determine if the hauled wastes are considered \_\_\_\_\_ because RCRA responsibilities apply even if the POTW accepts such wastes unknowingly.

- A. RCRA requirement(s)
- B. Industrial process wastes
- C. Hazardous
- D. Household and industrial septage wastes
- E. Any hauled wastes
- F. None of the Above

341. To be considered a hazardous waste, a waste must first be considered a \_\_\_\_\_ as defined in 40 CFR 261.2. To determine if a solid waste is regulated under federal regulations as a hazardous waste, the POTW must determine whether the waste in question is excluded from regulation under 40 CFR 261.4(b).

- A. RCRA program
- B. Federal regulations
- C. Only domestic waste
- D. Characteristic waste and a nonhazardous solid waste
- E. Solid waste
- F. None of the Above

If it is not excluded, the POTW must then determine whether the waste in question falls into one of the following categories:

342. It is listed as \_\_\_\_\_ in Subpart D of 40 CFR Part 261 (unless it has been specifically delisted.)

- A. RCRA requirement(s)
- B. Industrial process wastes
- C. A listed hazardous waste
- D. Household and industrial septage wastes
- E. A hazardous waste
- F. None of the Above

343. It is a mixture of a listed waste and a nonhazardous waste or is derived from the treatment of a listed hazardous waste (unless it has been specifically excluded under 40 CFR 261.3). (Note: A mixture of a characteristic waste and a nonhazardous solid waste, or the residue from the treatment of a characteristic waste, is considered hazardous only if it exhibits one or more of the \_\_\_\_\_.)

- A. RCRA program
- B. Federal regulations
- C. Only domestic waste
- D. Characteristic waste and a nonhazardous solid waste
- E. Hazardous waste characteristics
- F. None of the Above

POTWs can choose not to accept the delivery of hazardous wastes by truck rail or dedicated pipeline by \_\_\_\_\_.

344. Strictly prohibiting the discharge of any hauled wastes.

- A. RCRA requirement(s)
- B. Industrial process wastes
- C. A listed hazardous waste
- D. Household and industrial septage wastes
- E. Any hauled wastes
- F. None of the Above

345. Prohibiting the discharge of \_\_\_\_\_ (i.e., accepting only domestic waste from haulers or dedicated pipelines).

- A. RCRA program
- B. Federal regulations
- C. Only domestic waste
- D. Characteristic waste and a nonhazardous solid waste
- E. Any industrial process wastes
- F. None of the Above

346. Prohibiting the discharge of hazardous waste (e.g., accept hauled or dedicated pipeline industrial process wastes but only if accompanied by sufficient documentation to demonstrate that wastes are \_\_\_\_\_.)

- A. Not hazardous
- B. Industrial process wastes
- C. A listed hazardous waste
- D. Household and industrial septage wastes
- E. Any hauled wastes
- F. None of the Above

347. Reliable monitoring must be conducted to ensure that such conditions are met. \_\_\_\_\_ should evaluate each of these methods before making a decision as to which method is the most appropriate for its treatment plant.

- A. RCRA program
- B. Federal regulations
- C. Only domestic waste
- D. The Control Authority
- E. RCRA requirements
- F. None of the Above

348. Considerations such as local community practices should be taken into account (e.g., is contract hauling of household and industrial septage wastes common in the community, or are most locations serviced by \_\_\_\_\_).

- A. RCRA requirement(s)
- B. Industrial process wastes
- C. A listed hazardous waste
- D. Municipal sewer collection systems
- E. Any hauled wastes
- F. None of the Above

349. In addition to the RCRA requirements assimilated by reference into the \_\_\_\_\_, there might be other requirements that apply as a matter of law.

- A. RCRA program
- B. Federal regulations
- C. Only domestic waste
- D. Characteristic waste and a nonhazardous solid waste
- E. Permit-by-rule requirements for POTWs
- F. None of the Above

350. In summary, the Control Authority should determine the applicability of RCRA requirements and responsibilities if its treatment plant accepts hauled wastes, especially if any of the hauled wastes are known or suspected to have been collected from \_\_\_\_\_.
- |                              |  |
|------------------------------|--|
| A. Industrial sites          | D. Household and industrial septage wastes |
| B. Industrial process wastes | E. Any hauled wastes                       |
| C. A listed hazardous waste  | F. None of the Above                       |

## Topic 12 – Confined Space

### Confined Space Entry Program

#### Purpose

351. The Confined Space Entry Program is provided to protect authorized employees that will enter confined spaces from safety or health hazards associated with confined spaces.
- |         |          |
|---------|----------|
| A. True | B. False |
|---------|----------|

#### Scope

352. According to the text, you are required to recognize \_\_\_\_\_ associated with confined spaces.
- |                                    |  |
|------------------------------------|--|
| A. Internal configurations         | D. The dangers and hazards                 |
| B. Hazardous atmospheres           | E. Atmospheric factors and physical agents |
| C. Permit-Required Confined Spaces | F. None of the Above                       |

#### Definitions

##### Confined space:

353. A confined space is large enough or so configured that an employee can \_\_\_\_\_.
- |                                   |   |
|-----------------------------------|---|
| A. Have sufficient oxygen         | D. Recognize serious safety or health hazards |
| B. Bodily enter and perform work  | E. Continuously occupy the space              |
| C. See the internal configuration | F. None of the Above                          |
354. A confined space has limited or restricted means for \_\_\_\_\_.
- |                               |  |
|-------------------------------|--|
| A. An internal configuration  | D. Entry or exit                           |
| B. Hazardous atmosphere       | E. Atmospheric factors and physical agents |
| C. A safe working environment | F. None of the Above                       |
355. A confined space is not designed for \_\_\_\_\_.
- |                              |  |
|------------------------------|--|
| A. Engulfing an entrant      | D. Recognized serious safety or health hazards |
| B. Hazardous atmospheres     | E. Continuous employee occupancy               |
| C. An internal configuration | F. None of the Above                           |

356. A permit required confined space (permit space) contains or has a potential to contain a \_\_\_\_\_.
- |                                      |                      |
|--------------------------------------|----------------------|
| A. Recognized internal configuration | D. Entry or exit     |
| B. Hazardous atmosphere              | E. Physical agent    |
| C. Permit-Required Confined Space    | F. None of the Above |

357. A permit required confined space (permit space) contains a material that has \_\_\_\_\_.
- |   |                                     |
|---|-------------------------------------|
| A. Authorized entrants                    | D. Serious safety or health hazards |
| B. Hazardous atmospheres                  | E. Continuous employee occupancy    |
| C. The potential for engulfing an entrant | F. None of the Above                |

358. A permit required confined space (permit space) has an internal configuration such that \_\_\_\_\_ could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section.

A. An internal configuration                      D. An entrant  
B. Hazardous atmosphere                      E. Atmospheric factors and physical agents  
C. Equipment                                      F. None of the Above

359. A permit required confined space (permit space) contains any other recognized serious safety or \_\_\_\_\_.

A. Engulfing an entrant                      D. Health hazard  
B. Hazardous atmospheres                      E. Continuous employee occupancy  
C. Internal configuration                      F. None of the Above

360. Each \_\_\_\_\_ must be marked "Confined Space - Entry Permit Required".

A. Internal configuration                      D. Entry or exit  
B. Hazardous atmosphere                      E. Atmospheric factor and physical agent  
C. Permit-Required Confined Space                      F. None of the Above

### Confined Space Hazards

361. Fatalities and injuries constantly occur among construction workers who are required to enter \_\_\_\_\_.

A. An internal configuration                      D. Trenches  
B. Hazardous atmosphere                      E. Confined spaces  
C. Ventilation ducts                              F. None of the Above

362. Workers encounter both inherent and \_\_\_\_\_ within confined workspaces.

A. An internal configuration                      D. Induced hazards  
B. Hazardous atmosphere                      E. Atmospheric factors and physical agents  
C. Permit-Required Confined Spaces                      F. None of the Above

### Inherent Hazards

363. \_\_\_\_\_ are associated with specific types of equipment and the interactions among them. These hazards can be electrical, thermal, chemical, mechanical, etc.

A. Inherent hazards                              D. Recognized serious safety or health hazards  
B. Hazardous atmospheres                      E. Continuous employee occupancies  
C. Internal configurations                      F. None of the Above

364. Inherent hazards include high voltage, radiation generated by equipment, \_\_\_\_\_, omission of protective features, high or low temperatures, high noise levels, and high-pressure vessels and lines.

A. An internal configuration                      D. Defective design  
B. Hazardous atmosphere                      E. Atmospheric factors and physical agents  
C. Permit-Required Confined Spaces                      F. None of the Above

365. Inherent hazards usually cannot be eliminated without degrading or shutting down the system or equipment. Therefore, emphasis must be placed on \_\_\_\_\_.

A. Hazard control methods                      D. Recognized serious safety or health hazards  
B. Hazardous atmospheres                      E. Continuous employee occupancy  
C. Internal configurations                      F. None of the Above

### Induced Hazards

366. \_\_\_\_\_ result from a multitude of incorrect decisions and actions that occur during the actual construction process.

- A. Induced hazards
- B. Below-grade locations
- C. Vibrations
- D. Build-up of explosive gases
- E. Oxygen-deficient atmospheres
- F. None of the Above

367. Some examples of induced hazards are: omission of protective features, physical arrangements that may cause unintentional worker contact with electrical energy sources, oxygen-deficient atmospheres created at the bottom of pits or shafts, lack of safety factors in structural strength, and \_\_\_\_\_.

- A. Common confined spaces
- B. Hazards
- C. Vaults
- D. Extreme temperatures
- E. Flammable atmospheres
- F. None of the Above

### Typical Examples of Confined Workspaces

368. Confined workspaces in construction contain \_\_\_\_\_.

- A. Purging agents
- B. Below-grade location
- C. Vibration
- D. Both inherent and induced hazards
- E. Pollution
- F. None of the Above

### Vaults

369. Workers must enter \_\_\_\_\_ found on the construction jobsite to perform a number of functions.

- A. Common confined spaces
- B. Hazards
- C. A variety of vaults
- D. Oxygen-deficient atmospheres
- E. Low-voltage systems
- F. None of the Above

370. The restricted nature of vaults and their frequently \_\_\_\_\_ are reasons that vaults have an assortment of safety and health problems.

- A. Purged atmosphere
- B. Below-grade location
- C. Above-ground location
- D. Explosive atmosphere
- E. Oxygen-deficient atmosphere
- F. None of the Above

### Oxygen-Deficient Atmosphere

371. The ever-present possibility of \_\_\_\_\_ is one of the major problems confronting construction workers while working in vaults.

- A. A common confined space
- B. Hazards
- C. Vaults
- D. An oxygen-deficient atmosphere
- E. Low-voltage systems
- F. None of the Above

### Explosive or Toxic Gases, Vapors, or Fumes

372. \_\_\_\_\_ produce toxic fumes which are confined in the limited atmosphere of a confined space.

- A. Purging agents
- B. Below-grade locations
- C. Welding and soldering
- D. Build-up of explosive gases
- E. Oxygen-deficient atmospheres
- F. None of the Above



### Electrical Shock

373. \_\_\_\_\_ results because the contractor has not provided an approved grounding system or the protection afforded by ground-fault circuit interrupters or low-voltage systems.
- A. Common confined space
  - B. Hazard
  - C. Electrical shock
  - D. An oxygen-deficient atmosphere
  - E. A low-voltage system
  - F. None of the Above

### Purging

374. Purging agents such as nitrogen and argon may enter a vault from adjacent areas. These agents may displace the oxygen in the vault and asphyxiate workers almost immediately.
- A. True
  - B. False

### Materials Falling In and On

375. According to the text, a \_\_\_\_\_ normally considered a problem associated with confined spaces is material or equipment which may fall into the vault.
- A. Common confined space
  - B. Hazard
  - C. Vault
  - D. Oxygen-deficient atmosphere
  - E. Rare occurrence
  - F. None of the Above

376. If the \_\_\_\_\_ were removed, materials could fall into the vault, causing injury to the workers inside.
- A. Purging agents
  - B. Below-grade locations
  - C. Manhole covers
  - D. Explosive gases
  - E. Oxygen-deficient atmospheres
  - F. None of the Above

### Condenser Pits

377. Because of their large size, condenser pits found in the construction of nuclear power plants are often overlooked as \_\_\_\_\_.
- A. Common confined spaces
  - B. Hazards
  - C. Vaults
  - D. Oxygen-deficient atmospheres
  - E. Potentially hazardous confined spaces
  - F. None of the Above

378. Condenser pits create large containment areas for the accumulation of toxic fumes and gases, or for the creation of \_\_\_\_\_ when purging with argon, Freon, and other inert gases.
- A. Purging agents
  - B. Below-grade locations
  - C. Vibrations
  - D. Build-up of explosive gases
  - E. Oxygen-deficient atmospheres
  - F. None of the Above

379. Workers above will create other \_\_\_\_\_ by dropping equipment, tools, and materials into the condenser pit.
- A. Hazards
  - B. Collection places
  - C. Heat sources
  - D. Problems with the pumps
  - E. Oxygen deficiencies
  - F. None of the Above

## Manholes

380. Manholes are necessary to provide a means of entry into and exit from vaults, tanks, and pits, but these confined spaces may present \_\_\_\_\_ which could cause injuries and fatalities.

- A. Electrical shock
- B. Ventilation ducts
- C. Serious hazards
- D. Welding fumes
- E. Sumps
- F. None of the Above

381. \_\_\_\_\_ are associated with manholes. For example, workers could fall into manholes when covers are missing.

- A. Nitrogen purges
- B. Collection places
- C. A variety of hazards
- D. Problems with the pumps
- E. Oxygen deficiencies
- F. None of the Above

## Pipe Assemblies

382. The pipe assembly is one of the \_\_\_\_\_ encountered throughout the construction site.

- A. Electrical shock risks
- B. Ventilation ducts
- C. Workspaces
- D. Sources of welding fumes
- E. Most frequently unrecognized types of confined spaces
- F. None of the Above

383. Once inside a pipe assembly, workers are faced with \_\_\_\_\_, often caused by purging with argon or another inert gas.

- A. Nitrogen purge or dry air
- B. Collection places
- C. Heat prostration
- D. Potential oxygen-deficient atmospheres
- E. Polluted air
- F. None of the Above

384. The worker in a pipe may be subject to toxic atmospheres from \_\_\_\_\_ generated by the worker in the pipe, or by other workers operating outside the pipe at either end.

- A. Electrical shock
- B. Ventilation ducts
- C. Confined workspaces
- D. Welding fumes
- E. Sumps
- F. None of the Above

385. Pipes have \_\_\_\_\_ which provide little room for the workers to move about and gain any degree of comfort while performing their tasks.

- A. Nitrogen purge or dry air
- B. Collection places
- C. Water sources
- D. Problems with the pumps
- E. Generally restricted dimensions
- F. None of the Above

386. \_\_\_\_\_ is another problem to which the worker is exposed when inside a pipe assembly.

- A. Electrical shock
- B. Ventilation ducts
- C. Confined workspace
- D. Welding fumes
- E. Sumps
- F. None of the Above

387. The worker may suffer \_\_\_\_\_ caused by heat within the pipe run.

- A. Nitrogen purge or dry air
- B. Exposure to toxic gases
- C. Heat prostration
- D. Problems with the pumps
- E. Burns
- F. None of the Above

### Ventilation Ducts

388. Ventilation ducts create a \_\_\_\_\_ which moves heated and cooled air and exhaust fumes to desired locations in the plant.

- A. Collection place
- B. Complex network
- C. Workspace
- D. Shortcut to other areas
- E. Sump
- F. None of the Above

389. Depending on where the ventilation ducts are located, \_\_\_\_\_.

- A. Nitrogen purge or dry air may be found
- B. Collection places could exist
- C. Cold air may be found
- D. Oxygen deficiency could exist
- E. Sumps may be encountered
- F. None of the Above

390. Other problems associated with work inside ventilation ducts are electrical shock hazards and \_\_\_\_\_.

- A. Heat stress
- B. Water
- C. Confined workspaces
- D. Welding fumes
- E. Sumps
- F. None of the Above

### Tanks

391. Tanks are \_\_\_\_\_ that are used for a variety of purposes, including the storage of water and chemicals.

- A. Nitrogen purge locations
- B. Collection places
- C. Vaults
- D. Another type of confined workspace
- E. Sumps
- F. None of the Above

392. According to the text, oxygen-deficient atmospheres, along with toxic and explosive atmospheres created by the substances stored in the tanks, present hazards to workers.

- A. True
- B. False

393. Heat in tanks may cause \_\_\_\_\_, particularly on a hot day.

- A. Toxic fumes
- B. Equipment failure
- C. Heat prostration
- D. Problems with pumps
- E. Oxygen deficiency
- F. None of the Above

394. The \_\_\_\_\_ often requires workers to climb ladders to reach high places on the walls of the tank.

- A. Electrical shock potential
- B. Ventilation duct
- C. Confined workspace
- D. Nature of the tank's structure
- E. Sump
- F. None of the Above

### Sumps

395. Workers may encounter \_\_\_\_\_ when entering sumps.

- A. Nitrogen purge or dry air
- B. An oxygen-deficient atmosphere
- C. Heat prostration
- D. Problems with pumps
- E. Construction debris
- F. None of the Above

396. Because of the wet nature of the sump, the use of power tools inside may create \_\_\_\_\_ hazards.

- A. Electrical shock
- B. Inadequate lighting
- C. Confined workspace
- D. Tripping
- E. Falling
- F. None of the Above

### Containment Cavities

397. Containment cavities are characterized by little or no air movement. Ventilation is always a problem, and the possibility of oxygen deficiency exists.

- A. True                      B. False

398. Welding and other gases may easily collect in containment cavities, creating

- \_\_\_\_\_.
- A. Toxic atmospheres                      D. High temperatures  
B. Poor ventilation                        E. Low visibility  
C. Confined workspaces                  F. None of the Above

### Electrical Transformers

399. Before electrical transformers are opened, they must be \_\_\_\_\_ by pumping in air.

- A. Nitrogen purged                        D. Well vented  
B. Collection places                        E. Powered down  
C. Cooled down                            F. None of the Above

400. Before entering a transformer, testing for \_\_\_\_\_ is mandatory.

- A. Fumes                                      D. Oxygen deficiency and for toxic atmospheres  
B. Ventilation                                E. Hydrogen sulfide  
C. Confined workspace                    F. None of the Above