



Class IV Wastewater Treatment Examination Review Checklist

Applicant Name:

Submittal No. 1 2 3

Date of Council Review:

Reviewer Initials:

Evaluation Results: Pass Return

I. Experience

(Do not attach formal position/job descriptions; provide a detailed explanation of your duties in your own words.)

- | | <u>Yes</u> | <u>No</u> |
|--|--------------------------|--------------------------|
| 1. Describe in detail your experience using the format given. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Describe your duties and give dates of promotions. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Described related experience which may be relevant. Cover your entire experience related to the wastewater field. (Include past jobs, training, schooling, or volunteer experiences. Include skills acquired and licenses/certifications obtained.) | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Experience Section

II. Administration

Provide details of administrative experience.

- | | <u>Yes</u> | <u>No</u> |
|--|--------------------------|--------------------------|
| 1. Discuss how many people are working at your facility. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Explain their duties and responsibilities. | <input type="checkbox"/> | <input type="checkbox"/> |
| (Do not attach formal position/job descriptions.) | | |
| 3. Discuss the manner in which you supervise their daily activities. | | |
| a. Describe how you assign duties and responsibilities. | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Discuss how you provide feedback to your employees. | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Discuss how you ensure that information is exchanged between you and other staff and shifts, including units that do not directly report to you. | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Discuss how you motivate employees (financial and non-financial incentives). | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Provide Table of Organization with names & job titles including upper management not in the treatment plant (mayor, council, board of directors, etc.). | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. All positions at your facility should be discussed. Be sure to include discussion on how laboratory, maintenance, and operational duties are completed. | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Administrative Section

III. Budget

- | | <u>Yes</u> | <u>No</u> |
|--|--------------------------|--------------------------|
| 1. Provide a copy of the most recent budget for your plant(s). | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Describe and discuss the budget process and your personal involvement: | | |
| a. Explain the various steps of the budget process. | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Explain how budget amounts are developed. | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Describe who is responsible for submitting what information. | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Discuss who reviews and approves the budget at each step in the process. | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Discuss the purchasing process. | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Discuss any long-term budgeting processes, such as capital improvement budgeting and 2-, 5-, or 10-year budget forecasting. | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Describe how expenditures are tracked. | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Discuss how emergency purchases are made; including spending limits. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Provide a brief explanation of the budget accounts, how they are developed and how you prioritize expenditures from year to year. | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Budget Section

IV. Plant

- | | <u>Yes</u> | <u>No</u> |
|--|--------------------------|--------------------------|
| 1. Describe and discuss all treatment process units and compare their operation with respect to design vs. actual hydraulic and organic loadings. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Discuss and compare how the plant was designed to operate and how it is currently operating. (The discussion should include process control methodologies and any additional loadings such as I & I flows, industrial, septage, leachate, side streams, etc.) | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Discuss how you would like the plant to operate. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Describe your greatest challenges in meeting your effluent permit limits and operational goals. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Describe any need for operational and mechanical improvements. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Describe and discuss the effects (including biological, chemical, or physical impacts) of the effluent discharge on receiving waters. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Describe and discuss residuals reuse/disposal practices. (Include the operation of the liquid and solids handling processes and a discussion on compliance with pertinent Ohio Administrative Code requirements.) | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Provide a plant flow diagram. | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Provide a summary, by month, for the last 12 months of actual operating data. [This should include items such as the monthly averages of plant flows, process control flow rates and solids concentrations, chemical doses, % removals, sludge volume index (SVI), mean cell residence time (MCRT), settleable solids, influent and effluent quality, etc.] Do not include copies of monthly operating reports. | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Provide any additional information related to the plant and its performance which may be pertinent. | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Provide a plant flow diagram that clearly shows the path of the wet stream, the solids stream, and any side stream. | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Provide a discussion on the data, including discussion on any values that do not meet your operational targets or permit requirements. | <input type="checkbox"/> | <input type="checkbox"/> |

- | | | |
|---|--------------------------|--------------------------|
| 13. Discuss your facility's cybersecurity protocol as it relates to your automated treatment processes and SCADA. Please discuss any training or programs that are in place for the employees related to cybersecurity. | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|

General Comments on Plant Section

V. Collection System

- | | <u>Yes</u> | <u>No</u> |
|---|--------------------------|--------------------------|
| 1. Describe and discuss the wastewater collection system and how it operators. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Submit a system map that clearly shows the major service areas, trunk lines, pump stations, and significant problem areas. Provide a discussion of all of the above as well as routine maintenance, emergency response, etc. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Provide a discussion on: | | |
| a. major piping sizes | <input type="checkbox"/> | <input type="checkbox"/> |
| b. piping material | <input type="checkbox"/> | <input type="checkbox"/> |
| c. flow rates | <input type="checkbox"/> | <input type="checkbox"/> |
| d. inflow and infiltration (I & I) | <input type="checkbox"/> | <input type="checkbox"/> |
| e. odor/corrosion problems | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Describe and discuss sanitary sewer overflows (SSOs) | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Discuss problem areas. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Describe the need for collection system improvements. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Discuss programs for the reduction of SSOs, water in basement (WIB), CSO long term control plans, I & I reduction programs, and their current status. | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Describe and discuss collection system pump stations. (Limit to the 5 largest.) Provide a detailed discussion on: | <input type="checkbox"/> | <input type="checkbox"/> |
| a. collection areas | <input type="checkbox"/> | <input type="checkbox"/> |
| b. type of station | <input type="checkbox"/> | <input type="checkbox"/> |
| c. number of pumps | <input type="checkbox"/> | <input type="checkbox"/> |
| d. types of pumps | <input type="checkbox"/> | <input type="checkbox"/> |
| e. level control devices | <input type="checkbox"/> | <input type="checkbox"/> |
| f. force main size | <input type="checkbox"/> | <input type="checkbox"/> |
| g. flow rates | <input type="checkbox"/> | <input type="checkbox"/> |
| h. emergency power supply | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Discuss pump station problem areas. | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Describe the need for pump station improvements. | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Collection System Section

VI. Safety Program

- | | <u>Yes</u> | <u>No</u> |
|---|--------------------------|--------------------------|
| 1. Describe and discuss the safety program at your facility. (Include a discussion of the risk management plan, if required.) | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Discuss your involvement in the development and implementation of the safety program. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Include a listing of personal safety equipment for the plant. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. List other safety equipment available at the plant. | <input type="checkbox"/> | <input type="checkbox"/> |

- | | | |
|---|--------------------------|--------------------------|
| 5. Include a copy of the minutes from the most recent safety committee meeting. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Provide a summary or outline of your safety manual. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Indicate how your facility's safety program addresses provisions of the general OSHA standards. (Code of Federal Regulations 29-1910 and 1926) such as chemical safety, confined space, hazard communication, lock/tag out, personal protective equipment. | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Safety Section

VII. Planning

If you have no direct experience in planning for a plant change then describe a plant/system related event that required you to use planning skills such as plant shutdown/start-up, emergency planning, etc.

Providing a list of projects without description and discussion is not acceptable. A thorough description of one topic is preferred over short descriptions of multiple topics.

- | | <u>Yes</u> | <u>No</u> |
|---|--------------------------|--------------------------|
| 1. Describe and discuss your experience related to planning for a plant or system related project. Include planning for a new plant, improvements or expansions, any plans for future regulatory compliance and equipment or process changes. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Discuss the various steps in the planning process. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Discuss the end result of your planning efforts. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Discuss the extent of your responsibilities for the planning. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Discuss any 5- to 10-year plans for your plant and collection systems. | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Planning Section

VIII. Research

The projects could be completed or currently underway. If the project is still in progress, discuss what you think the outcome will be based on current data. Research experience may include anything from full scale studies to minor process modifications related to the treatment facility.

This section should follow the format of developing a hypothesis (goal), experimentation, analyzing results and developing conclusions. Providing a list of projects without description and discussion is not acceptable. A thorough description of one topic is preferred over short descriptions of multiple topics.

- | | <u>Yes</u> | <u>No</u> |
|--|--------------------------|--------------------------|
| 1. Describe or discuss any investigations or research programs you participate in related to wastewater treatment. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Show the following: | <input type="checkbox"/> | <input type="checkbox"/> |
| a. your degree of responsibility | <input type="checkbox"/> | <input type="checkbox"/> |
| b. dates | <input type="checkbox"/> | <input type="checkbox"/> |
| c. results and conclusions of research | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Submit abstracts of reports if any | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Research Section

XI. Design

Providing a list of projects without description and discussion is not acceptable. A thorough description of one topic is preferred over short descriptions of multiple topics.

- | | <u>Yes</u> | <u>No</u> |
|--|--------------------------|--------------------------|
| 1. Describe and discuss your personal involvement in plant/system design. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Discuss minor improvements suggested and/or implemented by you and/or your involvement on plant and system improvements. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Discuss your involvement with consulting engineers on major plant improvements, including how they are selected and your interaction with them. | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Design Section

X. Staff Training and Development

- | | <u>Yes</u> | <u>No</u> |
|--|--------------------------|--------------------------|
| 1. Describe and discuss how and by whom employees are trained to operate and maintain your plant. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is training provided in-house? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Do employees attend outside training? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. How have you assisted your co-workers in furthering their advancement in the field? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Give names and Ohio EPA certificates obtained for persons you have assisted in their advancement. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Describe your related teaching experience. | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Staff Training and Development Section

XI. Publications

Publications could include consumer confidence reports, brochures, standard operating procedures, annual reports, etc.

- | | <u>Yes</u> | <u>No</u> |
|--|--------------------------|--------------------------|
| 1. Describe publications you prepared, presented and/or published, when and where, co-authors, if any. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Discuss your degree of contribution to the publication. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Submit abstracts of papers. | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Publications Section

XII. Additional Information

Applicant should submit 3 references.

(The forms may be reviewed in the Class IV Exam & Guidance document.)