



## Class IV Drinking Water 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 (table format). Do not attach formal position/job descriptions   | <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 water 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

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### 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.<br><b>(Do not attach formal position/job descriptions.)</b>  | <input type="checkbox"/> | <input type="checkbox"/> |
| 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

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### 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

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### 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 performance. (Include raw water supply, recycled streams, etc.). Provide data on approved rates vs. what you actually run the unit daily).	<input type="checkbox"/>	<input type="checkbox"/>
2. Discuss specific water quality and operational goals and the plant performance relative to those goals. [For example, operational parameters (such as settled water turbidity or what determines when a filter is backwashed), finished water quality goals, etc.]	<input type="checkbox"/>	<input type="checkbox"/>
3. Discuss how the plant is designed to operate.	<input type="checkbox"/>	<input type="checkbox"/>
4. Discuss how it is operating.	<input type="checkbox"/>	<input type="checkbox"/>
5. Discuss how you would like it to operate.	<input type="checkbox"/>	<input type="checkbox"/>
6. Describe your greatest challenges in meeting water quality and/or operational goals.	<input type="checkbox"/>	<input type="checkbox"/>
7. Describe what information is utilized and how this information is gathered to make treatment chemical dosage adjustments and how these adjustments are determined and made (manually or automatic).	<input type="checkbox"/>	<input type="checkbox"/>
8. Describe any current or future need for operational and mechanical improvements or concerns about water quality or quantity.	<input type="checkbox"/>	<input type="checkbox"/>
9. Describe and discuss residuals reuse/disposal practices. (Include the operation of the liquid and solids handling processes and compliance with pertinent permits or regulations.)	<input type="checkbox"/>	<input type="checkbox"/>
10. Provide a flow diagram.	<input type="checkbox"/>	<input type="checkbox"/>
11. Provide a 12-month summary of actual operating data (i.e., monthly averages and/or ranges of data such as pumping, chemical dosages, treatment parameters, raw and finished water quality, etc.). Do not include copies of monthly operating reports.	<input type="checkbox"/>	<input type="checkbox"/>

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|---|--------------------------|--------------------------|
| 12. Provide any other information related to the plant and its performance.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Provide a detail discussion on filter operation, along with filter media specifications.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Discuss you SCADA system in detail and who maintains it.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Discuss your backup power situation and protocols. Provide generator specifications.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Summarize your contingency plan and discuss your biggest concerns.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Summarize your current year monitoring schedule.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. Summarize, if applicable, any NPDES permits/requirements.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Provide a discussion on the plant's source water. Provide specifics on size (area), capacities, pollution sources, SWAP, etc.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. 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

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V. Distribution System

- |   | <u>Yes</u>               | <u>No</u>                |
|---|--------------------------|--------------------------|
| 1. Describe and discuss water distribution system and how it operators.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Submit a system map. (In lieu of submitting a map, you may discuss how and where the system map is maintained.)                              | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Provide information on:  |                          |                          |
| a. major piping sizes (table format acceptable)   | <input type="checkbox"/> | <input type="checkbox"/> |
| b. piping material (table format acceptable)  | <input type="checkbox"/> | <input type="checkbox"/> |
| c. pumping rates  | <input type="checkbox"/> | <input type="checkbox"/> |
| d. system pressures (pressure districts/zones)  | <input type="checkbox"/> | <input type="checkbox"/> |
| e. consumption rates (for example residential, industrial, and seasonal demands)  | <input type="checkbox"/> | <input type="checkbox"/> |
| f. fire flow (provide and summarize the distribution system ISO rating-contact local Fire Chief, if necessary)                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| g. disinfection residuals   | <input type="checkbox"/> | <input type="checkbox"/> |
| h. backflow prevention (discuss your program, type used, requirements, enforcement, issues, etc.)   | <input type="checkbox"/> | <input type="checkbox"/> |
| i. metering (type used, sizes, discuss meter replacement program, issues, etc.)   | <input type="checkbox"/> | <input type="checkbox"/> |
| j. provide a discussion of results and improvement strategies for percent of unaccounted for water  | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Discuss any affects the distribution system has on water quality. (Disinfection byproducts, lead, copper, taste and odor, discolored water.) | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Discuss distribution system problem areas (quality and quantity).  | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Describe need for improvements. Include improvements necessary due to new regulatory requirements.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Describe and discuss booster pumping stations. (Limit to the 5 largest.)   | <input type="checkbox"/> | <input type="checkbox"/> |
| a. Provide information on:  |                          |                          |
| i. areas served   | <input type="checkbox"/> | <input type="checkbox"/> |
| ii. rechlorination  | <input type="checkbox"/> | <input type="checkbox"/> |
| iii. number of pumps  | <input type="checkbox"/> | <input type="checkbox"/> |
| iv. types of pumps  | <input type="checkbox"/> | <input type="checkbox"/> |
| v. flow rates   | <input type="checkbox"/> | <input type="checkbox"/> |

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|---|--------------------------|--------------------------|
| vi. system pressures  | <input type="checkbox"/> | <input type="checkbox"/> |
| vii. control devices  | <input type="checkbox"/> | <input type="checkbox"/> |
| viii. emergency power supply  | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Discuss problem areas  | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Describe the need for improvements to the booster stations.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Storage Facilities   |                          |                          |
| a. Provide information on:  |                          |                          |
| i. number and types of storage facilities   | <input type="checkbox"/> | <input type="checkbox"/> |
| ii. storage capacity  | <input type="checkbox"/> | <input type="checkbox"/> |
| iii. tank turnover  | <input type="checkbox"/> | <input type="checkbox"/> |
| iv. monitoring and control devices  | <input type="checkbox"/> | <input type="checkbox"/> |
| v. supervisory control and data acquisition (SCADA) system(s)   | <input type="checkbox"/> | <input type="checkbox"/> |
| vi. routine maintenance or inspection programs  | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Provide a detailed discussion about the prevalence of lead service lines in the Distribution System and how this is being handled. | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Distribution System Section

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#### 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 personal 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

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#### 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.                               | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Planning Section

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**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. Be sure to follow the format.

- |  | <b><u>Yes</u></b>        | <b><u>No</u></b>         |
|--|--------------------------|--------------------------|
| 1. Describe or discuss any investigations or research programs you participate in related to water | <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

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**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.

- |  | <b><u>Yes</u></b>        | <b><u>No</u></b>         |
|--|--------------------------|--------------------------|
| 1. Describe and discuss your personal involvement in plant/system design.            | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Discuss minor and/or your suggested and/or improvements suggested or implemented. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Discuss your involvement with consulting engineers on major plant improvements.   | <input type="checkbox"/> | <input type="checkbox"/> |

General Comments on Design Section

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**X. Staff Training and Development**

- |   | <b><u>Yes</u></b>        | <b><u>No</u></b>         |
|---|--------------------------|--------------------------|
| 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

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**XI. Publications**

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

- |  | <b><u>Yes</u></b>        | <b><u>No</u></b>         |
|--|--------------------------|--------------------------|
| 1. Describe publications you prepared, presented and/or published. | <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

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**XII. Additional Information**

Applicant should submit 3 references.

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