Ohio EPA Class IV Drinking Water Examination Review Checklist

Applicant: ___________________ Submittal No.  1___ 2___ 3___
Date of Council Review:__________ Reviewer:   DB VC BD CC RL TM RR JS
Evaluation Results:   Pass: ___  Return:____

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

1. Describe in detail your experience using the format given.  
   Yes  No  
2. Describe your duties and give dates of promotions.  
   Yes  No  
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.)  
   Yes  No

General Comments on Experience Section
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II. Administration

Provide details of administrative experience.

1. Discuss how many people work for you.  
   Yes  No  
2. Explain their duties and responsibilities.  
   Yes  No  
(Do not attach formal position/job descriptions.)
3. Discuss the manner in which you supervise their daily activities.  
   Yes  No  
   a. Describe how you assign duties and responsibilities.  
   Yes  No  
   b. Discuss how you provide feedback to your employees.  
   Yes  No  
   c. Discuss how you exchange information between you and other staff and shifts.  
   Yes  No  
   d. Discuss how you motivate employees (financial and non-financial incentives).  
   Yes  No  
4. Provide Table of Organization with names & job titles.  
   Yes  No

General Comments on Administrative Section
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Revised 8/18/09
III. Budget

1. Provide a copy of the most recent budget for your plant(s). ___ ___

2. Describe and discuss the budget preparation process and your personal involvement:
   a. Explain the various steps of the budget process. ___ ___
   b. Explain how budget amounts are developed. ___ ___
   c. Describe who is responsible for submitting what information. ___ ___
   d. Discuss who reviews and approves the budget at each step in the process. ___ ___
   e. Discuss the purchasing process. ___ ___
   f. Discuss any long term budgeting processes, such as capital improvement budgeting and 2, 5 or 10 year budget forecasting. ___ ___
   g. Describe how expenditures are tracked. ___ ___

3. Provide a brief explanation of the budget accounts. ___ ___

General Comments on Budget Section
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IV. Plant

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.) ___ ___

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.] ___ ___

3. Discuss how plant is designed to operate. ___ ___

4. Discuss how it is operating. ___ ___

5. Discuss how you would like it to operate. ___ ___

6. Describe your greatest challenges in meeting water quality and/or operational goals. ___ ___

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). ___ ___

8. Describe any current or future need for operational and mechanical improvements or concerns about water quality or
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.)

10. Provide a flow diagram.

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.

12. Provide any other information related to the plant and its performance.

General Comments on Plant Section
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V. Distribution System

1. Describe and discuss water distribution system and how it operates.

2. Submit a system map.  
   (In lieu of submitting a map, you may discuss how and where the system map is maintained.)

3. Provide information on:
   a. major piping sizes
   b. piping material
   c. pumping rates
   d. system pressures(pressure districts/zones)
   e. consumption rates(for example residential, industrial and seasonal demands)
   f. fire flow
   g. disinfection residuals
   h. backflow prevention
   i. metering
   j. percent of unaccounted for water

4. Discuss any affects the distribution system has on water quality.  (Disinfection byproducts, lead, copper, taste and odor, discolored water.)

5. Discuss dist. system problem areas (quality and quantity).

6. Describe need for improvements.  Include improvements necessary due to new regulatory requirements.
7. Describe and discuss booster pumping stations. (Limit to the 5 largest)  
   a. Provide information on:  
      i. areas served  
      ii. rechlorination  
      iii. number of pumps  
      iv. types of pumps  
      v. flow rates  
      vi. system pressures  
      vii. control devices  
      viii. emergency power supply  
   b. Discuss problem areas  
   c. Describe the need for improvements to the booster stations.  

8. Storage Facilities  
   a. Describe and discuss the following:  
      i. number and types of storage facilities  
      ii. storage capacity  
      iii. tank turnover  
      iv. monitoring and control devices  
      v. supervisory control and data acquisition (SCADA) system(s).  
      vi. routine maintenance or inspection programs  

General Comments on Distribution System Section  
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VI. Safety Program  

1. Describe and discuss the safety program at your facility. (Include a discussion of the risk management plan, if required.)  
2. Discuss your personal involvement in the development & implementation of the safety program.  
3. Include a listing of personal safety equipment for the plant.  
4. List other safety equipment available at the plant.  
5. Include a copy of the minutes from the most recent safety committee meeting.  
6. Provide a summary or outline of your safety manual.  

Revised 08/18/09
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. ___   ___

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.

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. ___   ___
2. Discuss the various steps in the planning process. ___   ___
3. Discuss the end result of your planning efforts. ___   ___
4. Discuss the extent of your responsibilities for the planning. ___   ___
5. Discuss any 5 to 10 year plans. ___   ___

General Comments on Planning Section
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VIII. Research

The projects could be completed or currently underway. 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.

1. Describe or discuss any investigations or research programs you participate in related to water
2. Show
   - Your degree of responsibility
   - dates
   - results and conclusions of research
3. Submit abstracts of reports, if any.

General Comments on Research Section

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IX. 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.

1. Describe and discuss your personal involvement in plant/system design.
2. Discuss minor improvements suggested or implemented.
3. Discuss your involvement with consulting engineers on major plant improvements.

General Comments on Design Section

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X. Staff Training and Development

1. Describe and discuss how and by whom employees are trained to operate and maintain your plant.
2. Is training provided in-house?
3. Do employees attend outside training?
4. How have you assisted your co-workers in furthering their
advancement in the field?  

Yes  No

5. Give names and Ohio EPA certificates obtained for persons you have assisted in their advancement. ___  ___

6. Describe your related teaching experience. ___  ___

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.

1. Describe publications you prepared, presented and/or published. ___  ___

2. Discuss your degree of contribution to the publication. ___  ___

3. Submit abstracts of papers. ___  ___

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.)