

# Environmental Operators' Certification Program

201, 3833 Henning Drive, Burnaby, BC V5C 6N5

Ph: 604.874.4784 Fax: 604.874.4794 Toll Free 1.866.552.EOCP



## Application for Classification of Water Treatment Facility

Facility Classification Fee: \$50.00 + \$3.00 GST = \$53.00

Application Date: _____	Date Received: _____
Notes: Inline treatment such as chlorination and fluoridation are considered part of the water distribution system unless combined with other chemical or physical treatment processes.	
Please attach a schematic drawing or detailed explanation of your system	

Name of Facility: _____	Facility Number: _____			
Location: _____				
Street Address	City	Province	Postal Code	
Mailing Address: _____		_____		
(if different)	Street Address	City	Province	Postal Code
Phone: _____	Fax: _____			
Email: _____				

Chief Operator: _____	Certificate Number: _____		
First Name	Surname		
Name of Owner or Applicant: _____			
Municipality, Company, etc.			
Contact Person: _____	Title: _____		
First Name	Surname		
Mailing Address: _____			
Street Address	City	Province	Postal Code
Phone: _____	Fax: _____		
Email: _____			

OFFICE USE ONLY	
Total Points: _____	Facility Classification: _____
Date: _____	Signature: _____

# WATER TREATMENT FACILITY CLASSIFICATION

17/05/1999

Shaded areas on this form will be completed by the Certification Program during confirmation.  
Please print on the lines provided or place an "x" in the appropriate box.

## 1 SIZE

- |  |       |         |  |  |
|--|-------|---------|--|--|
| a) Maximum population served, peak day | _____ | persons |  |  |
| b) Design flow average day             | _____ | m3d     |  |  |
| c) Clearwell size                      | _____ | m3d     |  |  |


## 2 WATER SUPPLY SOURCES

- |   |     |    |  |
|---|-----|----|--|
| a) Ground water   | Yes | No |  |
| b) Surface water or groundwater under the direct influence of surface water | Yes | No |  |


## 3 VARIATIONS IN RAW WATER

- |  |     |    |  |
|--|-----|----|--|
| a) Little or no variation  | Yes | No |  |
| b) Moderate, requires treatment changes 10% to 50% of the time   | Yes | No |  |
| c) Severe, requires pronounced and/or frequent treatment changes | Yes | No |  |


## 4 RAW WATER QUALITY

- a) Raw water quality is subject to or has occasional:
- |                                   |     |    |  |
|-----------------------------------|-----|----|--|
| i) Taste and/or odour levels      | Yes | No |  |
| ii) Colour levels                 | Yes | No |  |
| iii) Iron and/or manganese levels | Yes | No |  |
| iv) Turbidity levels              | Yes | No |  |
| v) Coliform and/or fecal counts   | Yes | No |  |
| vi) Algae growths                 | Yes | No |  |


- b) Raw water quality is subject to occasional:
- |   |     |    |  |
|---|-----|----|--|
| i) Industrial and commercial waste pollution          | Yes | No |  |
| ii) Agricultural pollution                            | Yes | No |  |
| iii) Urban runoff, erosion, and storm water pollution | Yes | No |  |
| iv) Recreational use (boating, fishing, etc.)         | Yes | No |  |


## 5 PRE-TREATMENT

- |                               |     |    |  |
|-------------------------------|-----|----|--|
| a) Screening, coarse (>5mm)   | Yes | No |  |
| b) Screening, fine (<5mm)     | Yes | No |  |
| c) Plant pumping of main flow | Yes | No |  |


## 6 CHEMICAL TREATMENT/ADDITION

- |                                   |     |    |  |
|-----------------------------------|-----|----|--|
| a) Fluoridation                   | Yes | No |  |
| b) pH adjustment                  | Yes | No |  |
| c) Stability or corrosion control | Yes | No |  |


7 COAGULATION AND FLOCCULATION

a) Chemical coagulant addition	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
b) Rapid mix units			
i) Mechanical mixers	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
ii) Injection mixers	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
iii) In-line blender mixers	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
c) Flocculation tanks			
i) Hydraulic flocculators	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
ii) Mechanical flocculators	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>

8 CLARIFICATION/SEDIMENTATION

a) Horizontal flow (rectangular basins)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
b) Horizontal flow (round basins)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
c) Up-flow solids contact sedimentation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
d) Inclined plate sedimentation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
e) Tube sedimentation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
f) Dissolved air floatation	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>

9 FILTRATION

a) Single media filtration	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
b) Dual or mixed media filtration	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
c) Microscreens	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
d) Diatomaceous earth filters	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
e) Cartridge filters	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
f) Slow sand filters	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
g) Direct filtration	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
h) Catalytic oxidation, absorption filtration (includes greensand, birm and others)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>

10 ADDITIONAL TREATMENT PROCESSES

a) Aeration	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
b) Packed tower aeration	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
c) Ion exchange	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
d) Chemical precipitation softening	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
e) Copper sulphate treatment	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
f) Powdered activated carbon	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
g) Reverse osmosis, electrodialysis	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>

11 DISINFECTION

a) Gaseous chlorine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
b) Liquid or powdered chlorine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
c) Chlorine dioxide	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
d) Ozonization	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
e) Ultraviolet	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>
f) On-site generation of chlorine	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/>

12 RESIDUALS DISPOSAL

a) Discharge to lagoons	Yes	No	
b) Discharge to lagoons and then raw water source	Yes	No	
c) Discharge to raw water	Yes	No	
d) Disposal to sanitary sewer	Yes	No	
e) Mechanical dewatering	Yes	No	
f) On-site disposal	Yes	No	
g) Solids composting	Yes	No	

13 LABORATORY CONTROL BY PERSONNEL

a) Bacteriological/Biological

i) Lab work done outside the plant	Yes	No	
ii) Membrane filter procedures	Yes	No	
iii) Use of fermentation tubes or any dilution method, fecal coliform determination	Yes	No	
iv) Biological identification	Yes	No	
v) Virus studies or similarly complex work conducted on site	Yes	No	

b) Chemical/Physical

i) Lab work done outside the plant	Yes	No	
ii) Push button or colourimetric methods for simple test such as chlorine residual, pH	Yes	No	
iii) Additional procedures - titration, jar tests, alkalinity, hardness	Yes	No	
iv) More advanced determinations such as numerous inorganics	Yes	No	
v) Highly sophisticated instrumentation such as atomic absorption and gas chromatography	Yes	No	

14 OTHER

a) Flow measurement

i) Weir/flume (visual only)	Yes	No	
ii) Mechanical/magnetic	Yes	No	
iii) Ultrasonic	Yes	No	

b) Instrumentation (SCADA)

i) System to provide data with no process operation	Yes	No	
ii) System to provide data with limited process operation	Yes	No	
iii) System to provide data with moderate process operation	Yes	No	
iv) System to provide data with extensive or total process operation	Yes	No	

Total Points

COMMENTS BY OPERATOR:

---

---

---

---

---

FOR OFFICE USE ONLY:

Flow Schematics Received

Yes

No

Date entered: \_\_\_\_\_

Comments:

---

---

---

---

---