

WATER AND WASTEWATER



WATER AND WASTEWATER
OPERATORS' CERTIFICATION GUIDELINES

Additional copies of this document, or any comments, questions, or suggestions regarding the content of this document may be directed to:

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FOREWORD

The Alberta Water and Wastewater Operators' Certification Guidelines (Guidelines) outline the Certificate of Qualification requirements for operators of waterworks and wastewater systems as per the *Environmental Protection and Enhancement Act*. These guidelines provide municipal officials and facility managers with the information necessary to determine certification requirements, and provide operators the necessary details on applying for, and obtaining certification. Certification criteria are included so that operators will be able to assess their positions with respect to certification.

The Alberta Environment Operator Certification Program (Certification Program) is intended to ensure that qualified operators supervise the day-to-day operation of all municipal water and wastewater facilities. The Certification Program is for all municipal operators, however, certification is not always required for non-charge operators. The approval or registration issued by Alberta Environment will include a facility classification and will specify the requirements for certified operators.

The benefits of such a program are:

- assurance of a safe and adequate water supply;
- protection of the aquatic environment;
- optimum use of public funds and resources dedicated to water and wastewater facilities;
- best use of existing technology; and
- recognition of water and wastewater facility operators and their important role in their communities.

A brief outline of the Certification Program is provided in **PART I – PROGRAM SUMMARY**.

Details of the Certification Program are provided in **PART II – PROGRAM GUIDELINES**.

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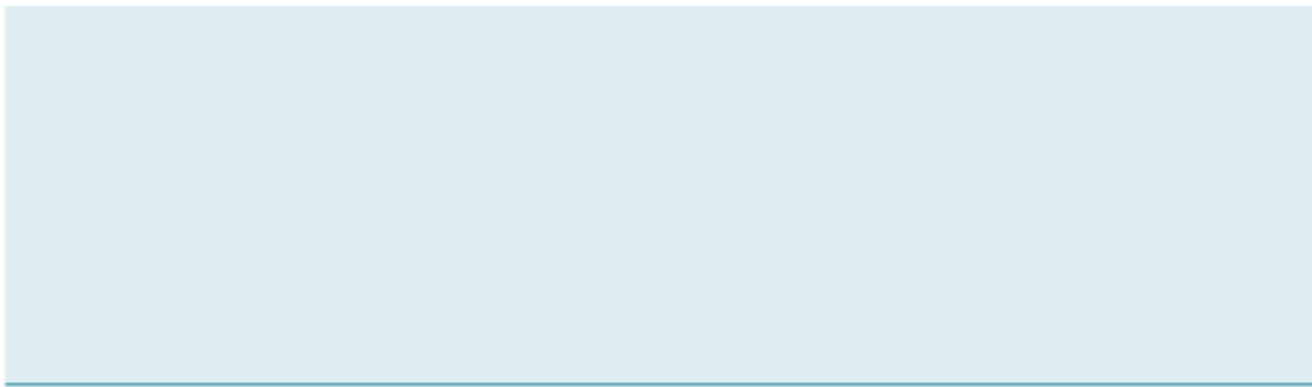
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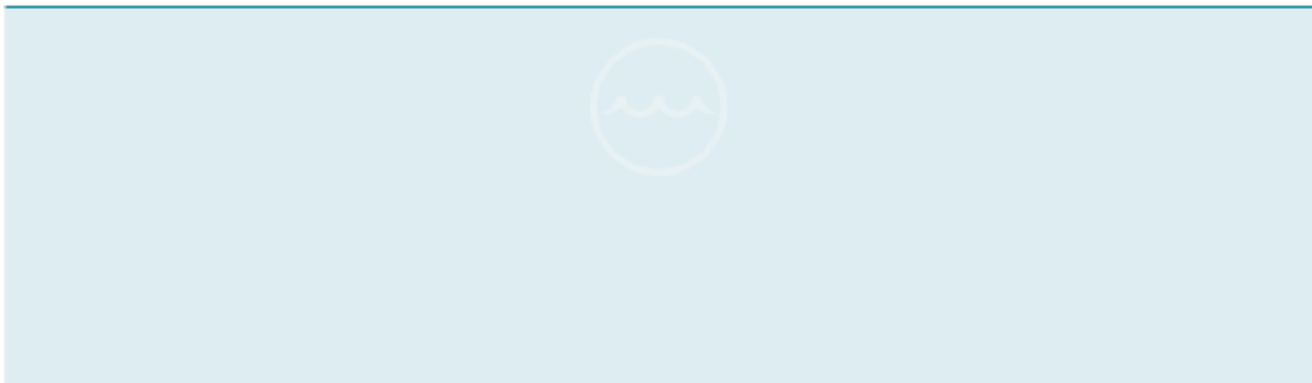
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PART I
PROGRAM SUMMARY



PART I – PROGRAM SUMMARY

SECTION I – PROGRAM BASICS

A. AUTHORIZATION

The *Alberta Environmental Protection and Enhancement Act (EPEA)* requires that specified water and wastewater facilities in the Province of Alberta have certified operators to supervise and/or carry out day-to-day operation. The approval or registration for each facility will specify the certified operator requirements.

B. FACILITIES REQUIRING CERTIFIED OPERATORS

The *Alberta Environmental Protection and Enhancement Act* and its regulations indicate which activities and facilities are required to be approved or registered under the Act, and therefore, which facilities require CERTIFIED Operators.

For the purposes of the Alberta Operator Certification Program (Certification Program), these facilities have been broken into two categories, Municipal and Public. This is a summary only. Detailed definitions can be found in the appropriate parts of the legislation noted above or in Part II, Section 2 of the Guidelines.

Municipal Facilities – Facilities serving residential hamlets, summer villages, villages, towns, cities and municipal developments that include:

- Water Treatment Plants (WT);
- Wastewater Treatment Plants or Wastewater Lagoons (WWT);
- Water Distribution Systems (WD);
- Wastewater Collection Systems (WWC).

Public Facilities – Non–municipal facilities that provide treatment for potable water or treat domestic wastewater are required to have an approval or registration from Alberta Environment. The types of facilities included are:

- Industrial facilities (only those with potable water and/or provide domestic wastewater treatment);
- Provincial Parks;
- recreation developments and,
- institutions/Government facilities;

Exclusions

Specifically excluded are hamlet and municipal development water systems that do not require treatment for health–effect parameters (high quality groundwater source), and have less than 15 service connections and less than 3 km of distribution system.

Public facilities that have only a water distribution system or a wastewater collection system are excluded.

Also excluded are wastewater systems that are regulated under the Safety Code Act.

C. FACILITY CLASSIFICATION

The level of operator certification is the same as the classification of the facility. For example, a Class II Water Treatment Plant requires a designated operator certified at Level II, Water Treatment.

All Alberta Environment approved classification of facilities are reviewed by the Alberta Operator Certification Advisory Committee. A classification review may be done at the written request of the facility owner or authorized representative.

D. TYPES OF CERTIFICATES AVAILABLE

1. Small System Certificate
2. Municipal Certificate
3. Public Certificate
4. Conditional Certificate

SECTION II – OBTAINING CERTIFICATION

To obtain certification at the required level, the operator/applicant must:

1. Meet the minimum requirements for each level as outlined below (Refer to Section 3 of the Certification Guidelines for the requirements for each level of certification).
2. Submit an application to write the certification exam(s) for that level.
3. Write and pass the appropriate certification exam.

The successful operator/applicant will then be issued the appropriate Certificate.

PART II
PROGRAM GUIDELINES



PART II – PROGRAM GUIDELINES

SECTION 1 – INTRODUCTION

Municipal governments and the Government of Alberta invest millions of dollars annually in water and wastewater facilities and have infrastructure worth billions of dollars. To help ensure proper operation and maintenance of these facilities, and to protect the health of its citizens and the environment, the Alberta Water and Wastewater Operator Certification Program (Certification Program) was developed.

A forerunner to the current Certification Program was established in 1969 in conjunction with the Western Canada Water and Sewage Conference (now the Western Canada Water and Wastewater Association). In 1974, a committee of the Federation of Associations on the Canadian Environment (subsequently the Canadian Water and Wastewater Association) was established to consider compatible certification programs for all provinces. This was done in conjunction with the Association of Boards of Certification, an international organization of certifying authorities, headquartered in Ames, Iowa. This allowed for standardization and recognition of the certification program across North America.

In 1975, a Voluntary Certification Program was started in Alberta. In February 1982, the Clean Water (Municipal Plants) Regulations were amended to require that the day-to-day operation of all municipal plants be supervised by a certified operator.

In 1993, *Alberta's Environmental Protection and Enhancement Act (EPEA)* was proclaimed to replace the existing environmental legislation including the Clean

Water Act. The Regulations under EPEA require that the operation of waterworks systems, which include water treatment plants and water distribution systems, and wastewater systems, which include wastewater treatment plants and wastewater collection systems, be supervised by one or more persons certified in accordance with the approval or registration and outlined in the Water and Wastewater Operators' Certification Guidelines (Guidelines).

Based on recommendations from the Alberta Certification Advisory Committee (see Section 7), further revisions, effective January 1, 2005, were implemented. The changes of significance include Mandatory Entry Level Training, CEU requirement for certification renewal, and the extension of renewal period.

SECTION 2 – FACILITY CLASSIFICATION

Alberta Environment classifies all water and wastewater facilities based on staff recommendations and review by the Alberta Operator Certification Advisory Committee. The owner or authorized representative may also request a review of a facility classification. The classification of Wastewater Collection (WWC) and Water Distribution (WD) systems is based upon the population served by the facilities while the classification of Water Treatment (WT) and Wastewater Treatment (WWT) facilities is based upon a range of points as determined by the degree of difficulty of operating a treatment facility. The Alberta system is similar to many used across Canada and the United States.

TABLE I – FACILITY CLASSIFICATION SYSTEM

FACILITY	BASED UPON	I	II	III	IV
Water Distribution (WD)*	Population Served	1500 or fewer	1501–15,000	15,001–50,000	50,001 or more
Water Treatment (WT)**	Range of Points	Based on degree of difficulty to operate the facility			
Wastewater Collection (WWC)*	Population Served	1500 or fewer	1501–15,000	15,001–50,000	50,001 or more
Wastewater Treatment (WWT)	Range of Points	Based on degree of difficulty to operate the facility			

Notes:

Alberta Environment may adjust the classification of a facility if justified.

Water transmission and storage may be part of either water treatment or water distribution but, alone, it is not considered to be either water treatment or water distribution.

Wastewater pumping and transmission may be part of either wastewater treatment or wastewater collection but, alone, it is not considered to be either wastewater treatment or wastewater collection.

A Class I facility may be designated as a small water or wastewater system if it is an approved ‘municipal’ or privately owned ‘public’ facility **servicing a population of less than 500**. Small Water systems include water distribution systems or Class I water treatment plants such as iron and manganese removal facilities, water softening facilities using ion-exchange, or filtration/ chlorination facilities. Surface water treatment facilities (or Groundwater under the influence) are specifically excluded from Small system category. Small Wastewater systems include wastewater stabilization pond facilities with no discharge or seasonal discharge.

**Simple “in-line” treatment (such as booster pumping, preventive chlorination, or odour control) is considered an integral part of the distribution or collection system.*

***A groundwater supply with only preventative chlorination is not considered a water treatment plant.*

SECTION III – CERTIFICATION: REQUIREMENTS & RESPONSIBILITIES

3.1 REQUIREMENT FOR HAVING CERTIFIED OPERATORS

The *Environmental Protection and Enhancement Act* requires that the day-to-day operation of specified **municipal and public water and wastewater facilities** be supervised by one or more persons who hold a valid certificate of qualification for the type and class of facility concerned. The approval or registration for each facility will state the required number of certified operators and their required level of certification.

3.1.1 Municipal Facilities

Facilities included are water treatment plants, wastewater treatment plants, water distribution

systems, and wastewater collection systems that serve residential type developments such as hamlets, summer villages, villages, towns, cities, and municipal developments. All require certified operators except where specifically excluded in the approval or registration or by Alberta Environment. (See Section 3.1.3)

3.1.2 Public Facilities

These are facilities that do not serve residential developments but do provide treatment for potable water or treat domestic wastewater and are required by their approval or registration under the *Environmental Protection and Enhancement Act* to have a certified operator. See Section 3.1.3 for exclusions. The types of developments that are considered to have Public Facilities are:

- industrial facilities (potable water and/or domestic sewage treatment only);
- Provincial Parks;
- institutions/Government facilities;
- recreation developments.

The water and wastewater systems serving Public Facilities that are affected by these Guidelines are:

- surface water treatment plants;
- groundwater treatment plants with treatment processes for health-effect parameters;
- mechanical wastewater treatment plants;
- aerated lagoons with continuous discharge; and
- other facilities designated by Alberta Environment.

3.1.3 Exclusions

Water Facilities

Specifically excluded are hamlets and municipal developments that utilize a high quality groundwater source with no treatment for health-effect parameters and have less than 15 service connections and less than 3 km of distribution line.

Public facilities with only a water distribution system are excluded and operators working in such facilities do not qualify for certification.

Wastewater Facilities

Specifically excluded are wastewater systems that are regulated under the Safety Codes Act.

Public facilities that have only a wastewater collection system are excluded and operators working in such facilities do not qualify for certification.

3.2 RESPONSIBILITY OF OPERATORS

It is the responsibility of certified operators to know the terms and conditions in the approval or registration for their facility. It is also their responsibility to understand the certification requirements for operators of their facilities as indicated by the approval or registration or by the Certification Guidelines.

Certified operators are also responsible to establish or understand contingency plans for each facility that ensure that the approval or registration requirements, with respect to certified operators, are met at all times. This is important during normal operation or in the cases of planned absences (e.g. vacation), unplanned absences (e.g. illness), or change of staff (e.g. retirement).

3.3 RESPONSIBILITY OF FACILITY OWNERS

It is the legal responsibility of the owner or manager of each facility to be aware of the requirements for certified operators and to ensure that the requirements are met. The approval or registration issued by Alberta Environment will designate the minimum number and level of certification of key operations personnel. It is important that facility owners or managers develop an internal program so that substitute or replacement personnel are available when necessary.

It is also important that each facility must have a contingency plan so that certified operator requirements are met in cases of planned absences (e.g., vacation), unplanned absences (e.g. illness), or change of staff (e.g. retirement).

3.4 FACILITY STAFFING REQUIREMENTS: CERTIFIED OPERATORS

The approval or registration issued by Alberta Environment will specify the minimum number and level of certified operators required for each facility.

For **Class I facilities**, there **must** be a certified Level I (or higher) operator in charge of the day-to-day operation of that facility. A back-up certified operator is **recommended**. The exception to this is when the approval or registration states that an operator with a Small Systems certificate is acceptable.

For **Class II facilities**, there **must** be a certified Level II (or higher) operator in charge of the day-to-day operation of that facility. It is **recommended** that an assistant operator with Level I or II certification be available.

For **Class III facilities serving a population under 1,500**, there **must** be a certified Level III (or higher) operator in charge of the day-to-day operation. It is further **recommended** that other operators be certified.

For **Class III facilities serving a population of 1,501 – 15,000**, there **must** be a certified Level III (or higher) operator in charge of the day-to-day operation. There **must** also be at least one other operator certified at Level I or higher. It is further **recommended** that other operators be certified.

For **Class III facilities serving a population of 15,001 – 50,000**, there **must** be a certified Level III (or higher) operator in charge of the day-to-day operation. There **must** also be at least one other operator certified at Level II or higher. It is **recommended** that other operators be certified.

For **Class III facilities serving a population over 50,000**, there **must** be a certified Level III (or higher) operator in charge of the day-to-day operation. There **must** also be another operator certified at Level II or higher to act in the absence of the charge operator and at least one other operator certified at Level I or higher. There **must** be at *least* one certified operator (any level) for each shift when shift operation is required. It is **recommended** that other operators be certified.

For Class IV facilities serving a population up to 200,000, there **must** be a Level IV operator in charge of the day-to-day operation. There **must** also be two Level III (or higher) operators to act in the absence of the Level IV operator. There **must** be at least one Level II or higher certified operator for each shift when shift operation is required. It is **recommended** that other operators be certified.

For Class IV facilities serving a population over 200,000, there **must** be a certified Level IV operator in charge of the day-to-day operation. There **must** be at least one other certified Level IV operator to act in the absence of the charge operator. There **must** be a third operator who is certified at either Level III or IV and there **must** be at least one Level II (or higher) certified operator for each shift when shift operation is required. It is **recommended** that other operators be certified.

SECTION 4 – QUALIFYING FOR CERTIFICATION

4.1 CERTIFICATE TYPE

Application forms for certification are available from Alberta Environment.

Small Water and Wastewater System Certificates

This certificate is issued to an operator who meets the training, experience and examination requirements for a small water system or small wastewater system certificate.

Small system certificates are valid for Class I facilities that serve a population of less than 500. Surface water treatment facilities (or Groundwater under the influence) are specifically excluded from the Small Systems category.

Municipal Certificates

This is a certificate issued when an operator meets the complete education, municipal experience and examination requirements of the Certification Program.

Municipal certificates are valid for Municipal or Public facilities as defined in Section 3.1.

Public Certificates

This certificate is issued to a person who meets the education and examination requirements of the Certification Program and has operating experience only in a public facility as defined in Section 3.1. This certificate will have a “P” designation in front of the certificate number.

The Public Certificate is *not valid* for Municipal facilities. It may be upgraded, upon application, to a Municipal Certificate after at least 6 months of approved current municipal facility operating experience.

Conditional Certificates

Conditional Certification of an operator may be considered when there is **no other alternative** for the facility owner to meet the requirements of the approval or registration. The certificate is issued only to the operator(s) designated by the owner as responsible for the facilities as required by the approval or registration and is valid only for those facilities. Conditional Certification is temporary, once only, and intended mainly for small systems where a special need can be shown.

A Conditional Certificate will be valid for a specific time period to allow a facility owner to either hire a fully certified operator or to permit an operator to upgrade to the required level. Conditional Certification will be issued as a letter. Applications for Conditional Certification must be submitted jointly by the operator applicant and by the facility owner (or representative).

4.2 OPERATOR QUALIFICATIONS

To qualify for writing certification exams, the applicants must meet minimum education, experience and training requirements for each level as indicated in the following sections.

Substitutions, with limitations, are allowed for both experience and education in Levels II, III and IV (see Sections 4.3.3 and 4.4.2).

Small System

- six hours of applicable approved training; and
- six months of acceptable operating experience in a small system.

Level I

- High School Diploma, GED (General Educational Development) transcript or High School Equivalency Diploma;
- one year of acceptable operating experience in a Class I or higher facility; and
- 1.2 CEUs of applicable approved entry-level training.

Level II

- High School Diploma, GED (General Educational Development) transcript or High School Equivalency Diploma; and
- three years of acceptable operating experience in a Class I or higher facility.

Level III

- High School Diploma, GED (General Educational Development) transcript or High School Equivalency Diploma;
- two years or 90 CEUs of approved post secondary education in the environmental field, engineering, or related science; and
- four years of acceptable operating experience, at least two of which must be in a Class II or higher facility including at least two years of DRC experience. Operators working in Class IV Water Treatment or Wastewater Treatment Plants do not require DRC experience. DRC is not required for Water Distribution or Wastewater Collection systems.

Level IV

- High School Diploma, GED (General Educational Development) transcript or High School Equivalency Diploma;
- four years or 180 CEUs, of approved post secondary education in the environmental field, engineering, or related science; and
- four years of acceptable operating experience, at least two of which must be in a Class III or IV facility including at least two years of DRC experience in a Class III or IV facility. DRC is not required for Water Distribution or Wastewater Collection systems.

A minimum of one year must have elapsed between writing and passing one level of certification exam and applying to write the next level of certification (i.e., one year between Levels I and II).

Operators may qualify for certification at **one** Level above the class of the facility where operating experience is gained. The **exception** is that operators with wastewater treatment operations experience at lagoon facilities only do **not** qualify for Level II wastewater treatment certification.

Operators of Class I or Class II water distribution systems may qualify for Level I Water Treatment Certification **after** obtaining Level I Water Distribution Certification and accumulating an additional one year of experience.

TABLE 2 – SUMMARY OF EDUCATION AND EXPERIENCE REQUIREMENTS

OPERATOR LEVEL	REQUIREMENTS	WT	WD	WWT	WWC
Small Systems	Training (CEUs)	0.6 CEUs approved applicable training		0.6 CEUs approved applicable training	
	Experience	6 months		6 months	
Level I	Education (years)	12	12	12	12
	Experience (years)	1	1	1	1
	Training (CEUs)	1.2	1.2	1.2	1.2
Level II	Education (years)	12	12	12	12
	Experience (years)	3	3	3	3
Level III	Education (years)	14	14	14	14
	Experience (years)	4*	4	4*	4
Level IV	Education (years)	16	16	16	16
	Experience (years)	4*	4	4*	4

Notes:

**For Level III and IV Certification in Water Treatment and Wastewater Treatment, the 4 years of experience must include at least 2 years of DRC experience (except for operators applying for Level III Certification working in Class IV plants).*

Substitutions, with limitations, are allowed for both experience and education in Levels II, III and IV.

4.3 EXPERIENCE REQUIREMENTS

4.3.1 Operating Experience

Operating experience is defined as the time spent working at a water or wastewater facility in satisfactory performance of operation duties or in supervision of persons performing operation duties.

In order to qualify to challenge a certification examination, an operator will be required to meet the minimum **OPERATING** experience requirements.

For the purposes of the Certification Program experience gained while in remote process control cannot be used towards the experience requirement for Certification Levels I, II, or III. For Level IV Certification a maximum of 1/3 of experience gained through remote process control may be used towards the Level IV experience requirement.

Limited substitution of post secondary education for experience applies only to Levels II, III, or IV.

Small Water and Wastewater Systems

Six months of current applicable experience in an approved or registered water or wastewater system.

Level I

Minimum of 1 year of current operating experience in an approved or registered water or wastewater facility.

Level II

Minimum of 3 years current operating experience in an approved **or** registered water or wastewater facility, or, 2 years of operating experience plus 1 year post secondary education (45.0 CEUs). You must also obtain at least one year of experience after obtaining your Level I certification.

Level III

For Water Treatment/Wastewater Treatment certification, minimum of 4 years current operating experience in a treatment plant, at least two of which must be in a Class II or higher facility including at least two years of DRC experience. No DRC experience required if working in a Class IV plant. You must also obtain at least one year of experience after obtaining your Level II certification.

For Water Distribution/Wastewater Collection certification, minimum of 4 years current operating experience, at least two of which must be in a Class II or higher facility. You must also obtain at least one year of experience after obtaining your Level II certification. No DRC experience is required.

Level IV

For Water Treatment/Wastewater Treatment certification, minimum of 4 years current operating experience, at least two of which must be in a Class III or IV facility, including at least 2 years of DRC experience in a Class III or IV facility. You must also obtain at least one year of experience after obtaining your Level III certification.

For Water Distribution/Wastewater Collection certification, minimum of 4 years current operating experience, at least two of which must be in a Class III or IV facility. You must also obtain at least one year of experience after obtaining your Level III certification. No DRC experience is required.

4.3.2 Direct Responsible Charge (DRC) Experience Requirements

Direct Responsible Charge (DRC) experience means experience gained through accountability for and:

- a) performance of, or
- b) supervision of

daily, on-site operational duties for a plant (facility) or operating shift, but can only occur when the Operator has been authorized or identified by the Owner as being in control of the facility or operating shift.

An operator will gain DRC when he/she has been authorized to perform, on a day-to-day basis, the following types of duties:

1. Review and establish operational parameters for the facility, or
2. Control the on-site operations of the facility including monitoring, evaluation, and adjustment of the facility or process, or
3. Provide on-site supervision of operators performing either #1 or #2 above.

Notes:

When shift operation is required, DRC experience can be earned in accordance with the above requirements for each operating shift.

*DRC experience is a function of the **position** within the employing organization. An operator*

can gain DRC during a temporary (e.g. vacation/illness replacement) assignment that meets the above requirements.

*More than one person can gain DRC during an operating shift if **each** person meets the above requirements.*

DRC Experience may only be gained after an operator obtains Level II Certification.

There are no DRC experience requirements for Small Systems, Level I, Level II, or Level III and IV wastewater collection and water distribution certification.

Level III

For Level III water treatment and wastewater treatment certification, at least one year of DRC must be gained after obtaining a Level II certificate, and at least two years DRC experience must be gained in a Class II or higher facility. DRC experience is not required for operators working in Class IV facilities.

Level IV

For Level IV water treatment and wastewater treatment certification, at least one year of DRC experience must be gained after receiving a Level III certificate, and at least two years DRC experience must be gained in a Class III or IV facility.

4.3.3 Substitutions of Education for Experience

Level I

No substitution for the experience requirement is permitted.

Level II, III, or IV

Post secondary education may be substituted for required experience for Levels II, III, and IV, but with the limitation that 50 per cent of any stated experience requirement (both operating and DRC) must be met by actual on-site operating experience in a plant or system. Minimum experience requirements must also be met.

Formal Education Substituted for Experience

School – High school education cannot be credited for substitution value toward any experience requirement since high school education is a basic requirement for certification Levels I to IV.

Post Secondary – One year of approved relevant formal academic education at the post secondary or college/university level may be substituted for a maximum of one year of operating experience except for Level I and Small Systems certification within the limitation noted above.

Note:

Education applied in substitution for an experience requirement cannot also be applied to the education requirement.

Operator Training Substituted for Experience

Approved specialized operator training courses, seminars, workshops, technical conferences, etc., may be substituted for operating experience requirements, subject to the minimum experience requirements previously described. Calculation will be based on Continuing Education Units (CEUs) with 45 considered equal to 1 year.

4.3.4 Other Experience

PARTIAL credit toward operating or DRC experience requirements MAY be approved by Alberta Environment for other related experience. Examples of “related experience” may include work in maintenance, laboratories, different utilities, different certification categories, other related occupations or trades, etc.

4.4 EDUCATION REQUIREMENTS

Minimum education requirements are specified for all levels. Other than for Small Systems Certification, the minimum requirement is Grade 12. Subsequent levels require Post Secondary Education and/or additional CEU’s (See Table 2 – Summary of Education and Experience Requirements). Limited substitution using DRC experience or specialized operator training

courses are outlined in Section 4.4.2.

4.4.1 Formal Education

Grade 12 (12 Years) – High School Diploma, General Educational Development (GED) transcript or High School Equivalency Diploma. Equivalencies may be approved by Alberta Learning. It is the responsibility of the applicant to obtain an evaluation of equivalency from Alberta Learning (Phone 780–422-5713).

14 Years – The formal education requirement of 14 years for Level III Certification includes the basic 12 years plus an additional 2 years of approved related, relevant post secondary formal education, or specialized training (90 CEUs), or a combination of formal education and training.

16 Years – The formal education requirement of 16 years for Level IV includes the basic 12 years plus an additional 4 years of approved related, relevant post secondary formal education, or specialized training (180 CEUs), or a combination of formal education and training.

Approved Post Secondary – Alberta Environment may approve related or relevant post–secondary programs. These could include degree, diploma and certificate programs from recognized post–secondary institutions. Degrees, diplomas, or certificates from institutions outside of Canada may be compared to similar Canadian programs. Partial degrees or diplomas are not necessarily approved based number of completed years. It is the responsibility of the applicant to have such post secondary education evaluated. Applicants can contact the following organization for more information.

International Qualifications Assessment Service (IQAS)

Ministry of Learning, Government of Alberta
4th Floor, Sterling Place, 9940 – 106 Street
Edmonton, Alberta
CANADA T5K 2N2

IQAS Telephone: (780) 427–2655

IQAS Fax: (780) 422–9734

Website: www.learning.gov.ab.ca/iqas

Specialized Training – Applicants lacking in formal post secondary education can take advantage of specialized operator training courses, or other courses, which have been evaluated and accepted as relevant, and assigned CEU’s by the Certification Advisory Committee.

Alberta Environment maintains a list of such courses. Other courses will be evaluated on request and may be assigned CEUs if they are applicable to the Program. Requests for evaluations are available from Alberta Environment and must include the following information:

- sponsor;
- certificate, degree or diploma awarded;
- topics covered;
- hours per topic; and
- facilitator or instructor (Name and/or position description – institution programs may provide generic instructor position descriptions).

One Continuing Education (CEU) Unit is defined as ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction.

- An **approved** operator training course of 36 contact hours = 3.6 CEUs.
- Forty-five CEUs are considered equivalent to 1 year of formal education.
- Courses that are less than three hours will not be assigned CEUs.

4.4.2 Substitutions for Formal Education

DRC Experience Substituted for Education

Substitutions may be made for required formal education, subject to the following criteria:

Level III –

A maximum of 1 year of DRC experience in a Class II (or higher) facility may be substituted for one year of the post secondary formal education requirement for Level III certification.

Level IV –

A maximum of 2 years of DRC experience

gained in a Class III or IV facility after obtaining Level III certification may be substituted for 2 years of the post secondary formal education requirement for Level IV certification.

Note:

DRC substitution for education cannot also be used to meet experience requirements or the one-year minimum specified in Section 4.3.2.

Operator Training Substituted for Education

Specialized operator training courses, seminars, workshops, technical conferences, etc., as recommended by the Certification Advisory Committee and approved by Alberta Environment, may be substituted for formal post secondary education without limitation. Calculation will be based on CEUs. A list of approved courses is available from Alberta Environment.

4.5 MANDATORY TRAINING REQUIREMENTS

Mandatory entry-level training is required for Small Systems Certification and Level I Certification.

Small Systems Certification

Six hours or 0.6 CEUs of mandatory approved training are required for each category, i.e., small water systems and small wastewater systems. This can be the Small Water Systems or Small Wastewater Systems courses approved by Alberta Environment or other training as approved by Alberta Environment.

Level I Certification

Twelve hours or 1.2 CEUs of approved Mandatory Entry Level Training are required for Level I Certification. This can be the Mandatory Entry Level Training course developed by Alberta Environment or other training as approved by Alberta Environment.

SECTION 5 – EXAMINATIONS

5.1 QUALIFYING TO WRITE A CERTIFICATION EXAM

To qualify to write a certification exam, an operator must meet the minimum applicable education, experience, and training requirements for each type and level of certification. Application forms for each type or category of exam are available from Alberta Environment and outline the specific requirements that must be met to qualify to write. Exams are available in each of the following categories:

Small Systems	Small Water Systems, Small Wastewater Systems
Levels I through IV	Water Treatment, Wastewater Treatment, Water Distribution, Wastewater Collection

5.2 EXAM FORMAT

Alberta Environment schedules examination sessions. Candidates must apply to take an examination before the scheduled deadline for each exam session. These deadlines are **approximately** 45 days before the scheduled exam date and allow time for the applications to be received, processed, and reviewed by the Certification Advisory Committee and for follow-up letters to be sent to the applicants within a reasonable time frame prior to the exam dates.

Small Water System and Small Wastewater System

The exams for Small Water and Small Wastewater certification consist of 50 questions each. The questions relate to the operation of small water treatment and distribution systems or small wastewater treatment and collection systems. The pass mark for each exam is 70%.

Levels I and II

The exams for Levels I and II consist of three “common” modules:

1. General
 2. Support Systems
 3. Administration
- and one or more specific modules consisting of:
4. Water Treatment (WT) Quality Control
 5. Water Distribution (WD) Quality Control
 6. Wastewater Collection (WWC) Quality Control
 7. Wastewater Treatment (WWT) Quality Control

Each module consists of 25 questions. All exams include modules 1, 2, and 3, and one or more of the “specific” modules (4 through 7). The first 3 modules are common for all four categories.

To be certified for WT, WWT, WD, or WWC, the examinee must obtain an average mark of at least 70% on the first three modules plus the appropriate specific module. The marks from the first three modules are combined with the mark from each of the specific modules to obtain an average mark for that category. The mark in each individual module must be at least 50% in order to achieve a passing grade.

Candidates for Level I Certification are permitted to write as many as 175 questions (i.e., all seven modules) in one exam session, **but this is not recommended** as it may be difficult to finish within the time limit.

Candidates for Level II Certification are restricted to a maximum of 125 questions at one exam session (i.e., the first three modules plus any two of the four specific modules). The pass mark of 70% is determined in the same manner as for Level I.

Levels III and IV

Level III and IV exams have 100 questions each and consist of four sections: General, Support Systems, Administration, and Quality Control. The sections do not have equal numbers of questions. The pass mark is 70%.

5.3 REWRITES OF CERTIFICATION EXAMS

If a candidate does *not* pass a certification exam, a rewrite is possible with the following restrictions:

1. A candidate who is unsuccessful in an examination attempt may, on request, rewrite the exam at least 6 months, but not more than one year, after the unsuccessful attempt. After one year, a new application will be required.
2. A candidate is eligible for a *maximum* of two rewrites following the initial attempt.
3. Should a candidate be unsuccessful in his/her third attempt at an exam, he/she must submit a complete new application showing the acquisition of at least *five* relevant CEUs since the last attempt. All current education and experience criteria must be met at the time of a new application.

SECTION 6 – ISSUANCE AND RENEWAL OF CERTIFICATES

6.1 INITIAL CERTIFICATE

Once an applicant has met the minimum requirements of the Certification Program and has passed the appropriate exam, Alberta Environment will issue a certificate. This certificate will indicate the name of the individual, the initial date of certification, and the type and level (i.e., Water Treatment II). A sticker indicating the date the certificate is valid to (i.e., '04/05', indicating certificate is valid until December 31, 2005) is also affixed. All certificates have an expiry date of December 31st.

6.2 RECIPROCITY

Certificates may be issued at a comparable level, without examination, to any person who holds valid operator certification from any province, or equivalent certifying authority if, in the judgment of Alberta Environment, the requirements for certification of operators under which the person's certificate was issued do not conflict with the requirements of the Alberta Certification Program and are of a standard not lower than the requirements of the Alberta Program. An application for

certification by reciprocity may be completed and submitted to Alberta Environment.

6.3 CERTIFICATE UPGRADING

When an applicant holding an active certificate has met the minimum requirements of the Certification Program for a higher level or for an additional category, and has passed the appropriate exam, a new certificate reflecting the new certification status is issued.

6.4 CERTIFICATE RENEWAL

Certificates must be renewed every three years to ensure that the individual continues to meet Certification Program requirements in a fashion satisfactory to Alberta Environment. Conditional Certificates are **not renewable**.

Renewal application forms will be sent to operators well in advance of the renewal date. Failure to renew certification will result in the certificate becoming inactivated.

There are three options to choose from to renew a certificate.

1. Current Experience

An operator must obtain a minimum of twelve months of operating experience in the previous three years **and** must obtain a minimum of 3.6 Continuing Education Units **during** the previous three-year renewal period.

For renewal purposes only, remote process control experience is gained at a maximum of 1/3 of the experience requirement.

2. Without Current Experience

If an operator does not have current experience, there are two options to choose from:

- *Continuing education:* An operator must obtain a minimum of 7.2 Continuing Education Units **during** the previous three-year renewal period. This method of renewal can only be used through two renewal periods.

- *Re-examination:* An operator may re-write the certification exam at the appropriate level. The rewrite must be **within** the three-year renewal period. This method of renewal can only be used through two renewal periods.

CEUs must be relevant, and must be obtained during the three-year renewal period and must be approved. A list of courses approved for CEUs is available from Alberta Environment.

Failure to furnish the required information on a renewal application will constitute grounds for rejection of a request and inactivation of the certificate.

If certified at Small System an operator must obtain a total of 0.6 CEU during the three-year renewal period.

If certified at Level I or Level II an operator must obtain a total of 3.6 CEUs during the three-year renewal period.

If certified at Level III or Level IV an operator must obtain 3.6 CEUs PER CERTIFICATION DISCIPLINE. (Discipline is defined as either “Water” or Wastewater”. Also at the Level III and Level IV levels, courses that apply to both disciplines may be used concurrently for both disciplines.

6.5 CERTIFICATE RE-ACTIVATION

If a certificate has been inactive for less than three years from the date it became inactive, it may be reactivated upon application if the applicant is currently working in the appropriate classification of facility.

If a certificate has been inactive for three or more years, application may be made for renewal at the same level if the applicant has a minimum of six months of current, applicable operations experience.

The applicant must meet all current criteria and Alberta Environment MAY require re-examination.

6.6 REVOCATION

Alberta Environment shall cancel or suspend a certificate:

- if the person to whom the certificate was issued has contravened the *Environmental Protection and Enhancement Act* or Regulations under the Act;
- if it is found that the person has practiced fraud or deception;

- if reasonable care, judgment or the application of the operator’s knowledge or ability was not used in the performance of operation duties;
- if the individual is incompetent or unable to perform prescribed duties properly; or
- if for any other reason the individual is no longer qualified to operate a municipal or public facility.

6.7 APPEALS

In the event that an individual believes that these Guidelines have been misinterpreted, applied inequitably, or special circumstances have not been adequately considered, then the following appeal process may be used.

1. Written appeal to Alberta Environment.
2. Written appeal or verbal presentation to the Certification Advisory Committee.

SECTION 7 – CERTIFICATION ADVISORY COMMITTEE

7.1 DUTIES OF THE CERTIFICATION ADVISORY COMMITTEE

The Committee meets, as required by Alberta Environment, to make recommendations on the following items:

- a) certification program policy;
- b) applications for certification;
- c) facility classifications;
- d) applications for certification renewal;
- e) certification examinations;
- f) evaluation of specific training/education with respect to the Program;
- g) experience and education relevance;
- h) determination of Certification Program fees; and
- i) other matters that may be requested.

7.2 CERTIFICATION ADVISORY COMMITTEE MEMBERS

Members of the Certification Advisory Committee are appointed by the Minister to provide review and recommendations concerning the Certification Program. The Committee may consist of the following representatives:

- a) one representative from Alberta Environment;
- b) one municipal government employee in a managerial position (not elected) responsible for potable water supply and/or wastewater system;
- c) one management representative from an industry that is required to have operators certified under the program;
- d) one representative of the Alberta Urban Municipalities Association;
- e) one faculty member of a post-secondary institution where that person conducts training related to municipal water supply and wastewater operations;
- f) four active operating personnel holding valid certificates with representation from both the water and wastewater fields;

- g) one active operating person holding a valid certificate for the domestic wastewater or potable water operations in an industrial facility;
- h) one representative from Alberta Environment from a regional office; and
- i) one other person at the discretion of the Minister.

The Chairman of the Committee is appointed by Alberta Environment from among the Committee members. A quorum for meetings is six members.

The Committee members serve three-year terms, which are staggered so that at least two of the positions will expire each year. Committee members may be re-appointed.

APPENDIX I DEFINITIONS



APPENDIX I – DEFINITIONS

The definitions in this section are specific to operator certification.

ACT

refers to the Alberta Environmental Protection and Enhancement Act (EPEA).

APPROVAL

means an approval issued under EPEA in respect of an activity, and includes renewal of an approval.

CERTIFIED OPERATOR

is a person who holds a valid Certificate of Qualification issued under section 2 of the Wastewater and Storm Drainage (Ministerial) Regulation or under section 16 of the Potable Water Regulation.

CONTINUING EDUCATION UNIT (CEU)

1 CEU is 10 contact hours of participation in an organized relevant continuing education experience (training) under responsible sponsorship, capable direction, and qualified instruction as approved by the Certification Advisory Committee.

DIRECT RESPONSIBLE CHARGE (DRC)

means experience gained through accountability for *and*:

- a) performance of, or
- b) supervision of

daily, on-site operational duties for a plant (or system) or operating shift, but can only occur when the Operator has been authorized or identified by the Owner as being in control of the facility or operating shift.

EXPERIENCE

(see Operating Experience) means the time spent working at a water or wastewater facility in satisfactory performance of operation or supervision duties (See Appendix IV).

GENERAL EDUCATIONAL DEVELOPMENT (GED)

One way to earn a High School Equivalency Diploma for any Albertan who has not completed a formal high school education is to write the General Educational Development tests. There are five tests (Social Studies, Science, Writing Skills, Interpreting Literature and the Arts, and Mathematics), which must be written and passed in order to be granted a High School Equivalency Diploma.

Information on obtaining writing the GED tests is available from Alberta Learning, Devonian Building, West Tower, 11160 Jasper Avenue, Edmonton, Alberta, T5K 0L2, Phone: (780) 427-0010.

GRADE 12

means a high school diploma. When grade 12 completion is in doubt, **it is the responsibility of the applicant** to obtain an evaluation by Alberta Learning.

HIGH SCHOOL EQUIVALENCY DIPLOMA

An Albertan who has not completed a formal high school education may earn a High School Equivalency Diploma by accumulating 100 credits as stipulated by Alberta Learning, or by writing the General Educational Development Tests (GED). For more information contact Alberta Learning at (780) 427-0010.

OPERATION

means the active daily on-site process of ensuring that a facility accomplishes its defined purpose. Operation may include many elements. They are described further in Appendix IV.

OPERATING EXPERIENCE

means the time spent working at a water or wastewater facility in satisfactory performance of operation duties or supervision of persons performing operations duties.

OPERATOR

is a person who performs day-to-day activities primarily consisting of the control of a water treatment plant, wastewater treatment plant, water distribution system or wastewater collection system. Appendix IV provides more details.

POTABLE WATER

means water that is supplied by a waterworks system and is used for drinking, cooking, dish washing or other domestic purposes requiring water that is suitable for human consumption.

REGISTRATION

is a registration issued under EPEA in respect of an activity, and includes renewal of a registration.

REMOTE MONITORING

is the ability to continuously receive adverse operational conditions through alarms from a remote location. Monitoring from a remote location does not provide the ability to make process adjustments from the remote location.

REMOTE PROCESS CONTROL

is the ability to view continuous *real time* data and initiate adjustments of a process or operational condition from a remote location.

WASTEWATER COLLECTION SYSTEM (WWC)

is the portion of the wastewater system that receives wastewater from the premises of the discharger and conveys it to the point of treatment or disposal.

WASTEWATER TREATMENT PLANT (WWT)

is the portion of the wastewater system that is used in the treatment of domestic wastewater, including effluent disposal and solids handling treatment and disposal.

WATER DISTRIBUTION SYSTEM (WD)

is the portion of the water system in which water is stored and conveyed from the water treatment plant or other supply point to the consumers.

WATER TREATMENT PLANT (WT)

is the portion of a water system that in some way alters the physical, chemical, or bacteriological quality of the water. A facility that chlorinates groundwater, but has no other process, is not considered to be a water treatment plant.

YEAR

is defined as one calendar year or 12 consecutive months (except in special circumstances). If it is impossible to determine experience gained in terms of years or 12-month periods then, 1800 hours may be considered equivalent to 1 year. **Overtime and On Call hours are NOT applicable.**

APPENDIX II
GUIDE TO EXPERIENCE
AND EDUCATION QUALIFICATIONS
AND SUBSTITUTIONS



APPENDIX II

GUIDE TO EXPERIENCE AND EDUCATION QUALIFICATIONS AND SUBSTITUTIONS

WHEN SHORT OF EXPERIENCE:

This Education or Training	May be Substituted for	Limit
High School Education	No credit	–
1 Year relevant post secondary education	1 year operating or DRC experience	50% of experience requirement
1 year (expressed as 45 CEUs) relevant and specialized operator training as approved	1 year operating or DRC experience	50% of experience requirement

WHEN SHORT OF FORMAL EDUCATION:

This Education or Training	May be Substituted for	Limit
For Level III, DRC (only) 1 year DRC experience in Class II or higher facility	1 year post secondary education	50% of post secondary education requirement
For Level IV, DRC (only) 1 year DRC experience in Class III or IV facility	1 year post secondary education	50% of post secondary education requirement
1 year (expressed as 45 CEUs) relevant and specialized operator training as approved	1 year formal education	None

Note:

For Levels II, III, and IV certification, substitutions may be made for required experience, but the minimum experience requirement must be met and at least 50% of all stated experience requirements must be met by actual on-site operating experience in the appropriate type of plant or system.



APPENDIX III
APPLICANT WORKSHEETS / CHECKLISTS



APPENDIX III

APPLICANT WORKSHEETS/CHECKLISTS

SMALL SYSTEMS OPERATIONS

A. Education

Minimum 0.6 CEUs Applicable Training

- Small Water Systems Course (0.6 CEU's)

- Small Wastewater Systems Course (0.6CEU's)

- Other Applicable approved training:



B. Experience

Minimum 6 months of current operating experience
in a municipal facility. _____ months



*Please read the application form carefully. Complete all sections.
Obtain the necessary signatures and provide all necessary attachments.*

APPLICANT WORKSHEET/CHECKLIST

LEVEL I CERTIFICATION

A. Education

High School Diploma, General Educational Development (GED) transcript or High School Equivalency Diploma required. Copy must be attached.	<input type="checkbox"/>
Approved applicable entry-level training (minimum 1.2 CEUs) _____ # CEUs Copy of relevant documentation must be attached.	<input type="checkbox"/>

B. Experience

Minimum 1-year current operating experience in a municipal facility. _____ # years	<input type="checkbox"/>
--	--------------------------

Note 1: If you are applying for certification in more than one of the categories (Water Treatment, Wastewater Treatment, Water Distribution, Wastewater Collection) you must have worked in **EACH** category during the same year. It is possible to qualify for more than one category during the same year.

Note 2: Please indicate on your application, your **OPERATIONS** duties in **EACH** of the categories you wish to have considered.

*Please read the application form carefully. Complete all sections.
Obtain the necessary signatures and provide all necessary attachments.*

APPLICANT WORKSHEET/CHECKLIST

LEVEL II CERTIFICATION

A. Education

High School Diploma, General Educational Development (GED) transcript or High School Equivalency Diploma required.	<input type="checkbox"/>
--	--------------------------

B. Experience

Minimum of 3 years current operating experience in a municipal facility _____ # years	<input type="checkbox"/>
or	
2 years of current operating experience in a municipal facility, plus 1 year post secondary education (45.0 CEUs)	<input type="checkbox"/>
Copy of relevant education documentation must be attached.	<input type="checkbox"/>

C. Elapsed Time

On year since obtaining Level 1 certification. Date of Level 1 Examination: _____	<input type="checkbox"/>
--	--------------------------

Note 1: If you are applying for certification in more than one of the categories (Water Treatment, Wastewater Treatment, Water Distribution, Wastewater Collection) you must have worked in **EACH** category within the time period (the same 2/3 years MAY apply to more than one category).

Note 2: Please indicate on your application, your **OPERATIONS** duties in **EACH** of the categories you wish to have considered.

*Please read the application form carefully. Complete all sections.
Obtain the necessary signatures and provide all necessary attachments.*

APPLICANT WORKSHEET/CHECKLIST

LEVEL III CERTIFICATION

WATER TREATMENT/WASTEWATER TREATMENT

A. Education

High School Diploma, General Educational Development (GED) transcript or High School Equivalency Diploma required.	<input type="checkbox"/>
--	--------------------------

Two years approved post secondary education or 90 CEUs or	_____ <input type="checkbox"/>	<input type="checkbox"/>
One year post secondary education plus 45.0 CEUs or	_____ <input type="checkbox"/>	
One year post secondary education or 45.0 CEUs plus one extra year of DRC experience Copy of relevant education documentation must be attached.	_____ <input type="checkbox"/>	

B. Experience

Four years current operating experience in a treatment plant, at least two of which must be in a Class II or higher facility or	_____ years <input type="checkbox"/>	<input type="checkbox"/>
Three years current operating experience in a treatment plant, at least two of which must be in a Class II or higher facility plus one year extra post secondary education. Attach a copy of your current organizational chart	_____ <input type="checkbox"/>	

C. DRC Experience (may be part of the four years operating experience (see "B"))

Minimum two years DRC experience (or 2 years current operating experience in a Class IV plant) <i>Note: Additional DRC (maximum 1 year) may be used as substitution for Education in "A" above.</i>	_____ years	<input type="checkbox"/>
--	-------------	--------------------------

D. Elapsed Time

One year since obtaining Level II Certification Date of Level II Examination: _____	<input type="checkbox"/>
--	--------------------------

*Please read the application form carefully. Complete all sections.
Obtain the necessary signatures and provide all necessary attachments.*

APPLICANT WORKSHEET/CHECKLIST

LEVEL III CERTIFICATION

WATER DISTRIBUTION AND WASTEWATER COLLECTION

A. Education

High School Diploma, General Educational Development (GED) transcript or High School Equivalency Diploma required.	<input type="checkbox"/>
--	--------------------------

Two years approved post secondary education or 90 CEUs or	_____ <input type="checkbox"/>	<input type="checkbox"/>
One year post secondary education plus 45.0 CEUs or	_____ <input type="checkbox"/>	
One year post secondary education or 45.0 CEUs plus one extra year of DRC experience Copy of relevant education documentation must be attached.	_____ <input type="checkbox"/>	

B. Experience

Four years current operating experience in a system, at least two of which must be in a Class II or higher facility or	_____ years <input type="checkbox"/>	<input type="checkbox"/>
Three years current operating experience in a system, at least two of which must be in a Class II or higher facility plus one year extra post secondary education. Attach a copy of your current organizational chart	_____ <input type="checkbox"/>	

C. Elapsed Time

One year since obtaining Level II Certification Date of Level II Examination: _____	<input type="checkbox"/>
--	--------------------------

*Please read the application form carefully. Complete all sections.
Obtain the necessary signatures and provide all necessary attachments.*

APPLICANT WORKSHEET/CHECKLIST

LEVEL IV CERTIFICATION

WATER TREATMENT/WASTEWATER TREATMENT

A. Education

High School Diploma, General Educational Development (GED) transcript or High School Equivalency Diploma required.	<input type="checkbox"/>
--	--------------------------

Four years approved post secondary education or 180 CEUs _____ <input type="checkbox"/> With Substitutions:	
Minimum two years post secondary education or 90CEUs Substitutions used: _____	
Copy of relevant education documentation must be attached.	<input type="checkbox"/>

B. Experience

Minimum four years current operating experience in a treatment plant, at least two of which must be in a Class III or IV facility _____ years <input type="checkbox"/> Attach a copy of your current organizational chart	<input type="checkbox"/>
---	--------------------------

C. DRC Experience (may be part of the four years operating experience (see "B"))

Minimum two years DRC experience in a Class III or IV facility _____ years <i>Note: Additional DRC (maximum 2 years) may be used as substitution for Education in "A" above.</i>	<input type="checkbox"/>
---	--------------------------

D. Elapsed Time

One year since obtaining Level III Certification Date of Level III Examination: _____	<input type="checkbox"/>
--	--------------------------

**Please read the application form carefully. Complete all sections.
Obtain the necessary signatures and provide all necessary attachments.**

APPLICANT WORKSHEET/CHECKLIST

LEVEL IV CERTIFICATION

WATER DISTRIBUTION/WASTEWATER COLLECTION

A. Education

High School Diploma, General Educational Development (GED) transcript or High School Equivalency Diploma required.	<input type="checkbox"/>
--	--------------------------

Four years approved post secondary education or 180 CEUs <i>With Substitutions:</i> _____ <input type="checkbox"/>	
Minimum two years post secondary education or 90 CEUs Substitutions used: _____	
Copy of relevant education documentation must be attached.	<input type="checkbox"/>

B. Experience

Minimum four years current operating experience, at least two of which must be in a Class III or IV facility _____ years <input type="checkbox"/>	
Attach a copy of your current organizational chart	<input type="checkbox"/>

C. Elapsed Time

One year since obtaining Level III Certification Date of Level III Examination: _____	<input type="checkbox"/>
--	--------------------------

*Please read the application form carefully. Complete all sections.
Obtain the necessary signatures and provide all necessary attachments.*

APPENDIX IV

DEFINITION OF “OPERATE”
FOR THE
PURPOSES OF THE PROGRAM
AND EXAMPLES OF
DAY-TO-DAY OPERATING DUTIES



APPENDIX IV – DEFINITION OF “OPERATE” FOR THE PURPOSES OF THE CERTIFICATION PROGRAM AND EXAMPLES OF DAY-TO-DAY OPERATING DUTIES

*The following examples of day-to-day operating duties are for your reference only.
Please DO NOT submit this document as a description of your own job duties.*

WATER TREATMENT PLANT OPERATION

“Operate” means the performance of day-to-day activities primarily consisting of the control of any process, which affects the quality of the product.

“Operate” may include performance of day-to-day maintenance, laboratory, administration, special study or engineering work so long as the primary function of the operator involves process control.

“Operate” does NOT include maintenance, laboratory, administration, special study or engineering functions not directly involved with major day-to-day process control activities.

TYPICAL DUTIES OF A WATER TREATMENT PLANT OPERATOR

1. Start up, shut down and make periodic operating checks of plant equipment, such as pumping systems, chemical feeders, auxiliary equipment (compressors), measuring and control systems.
2. Perform preventive maintenance, such as lubrication, operating adjustments, cleaning and painting equipment.
3. Load and unload chemicals, such as chlorine cylinders, bulk liquids, powdered chemicals and bagged chemicals using chemical-handling equipment such as fork lifts and hoists, and by hand.
4. Perform corrective maintenance on plant mechanical equipment, for example, chemical feed pumps and small units.
5. Maintain plant records, including operating logs, daily diaries, monthly and annual reports, chemical inventories, and data logs .
6. Monitor the status of plant operating guidelines, such as flows, pressures, chemical feeds, levels, and water quality indicators by reference to measuring systems.
7. Collect representative water samples and perform laboratory tests on samples for turbidity, colour, odour, chlorine residual, and other tests as required.
8. Order chemicals, repair parts and tools.
9. Estimate and justify budget needs for equipment and supplies.
10. Conduct safety inspections, follow safety rules for plant operations, and develop and conduct tailgate safety meetings.
11. Discuss water quality with the public, conduct plant tours (especially for school children), and participate in department/municipal public relations program.
12. Communicate effectively with other operators and supervisors on the appropriate technical level.
13. Make calculations to determine chemical feed rates, flow quantities, detention and contact times, and hydraulic loading as required for plant operation.
14. Fulfill all requirements of the approval, or registration.
15. Make or direct emergency repairs or adjustments to the facilities without compromising the quality of the water.
16. Monitor facility processes and make the necessary adjustments to ensure optimum treatment.
17. Establish and adjust chemical feed rates.
18. Determine need for and perform filter backwash, clarifier blow-down, etc.

WATER DISTRIBUTION OPERATION

“Operate” means the performance of day-to-day activities primarily consisting of the control of the distribution network, which affects the quality, quantity, or reliability of water service to the customer. This includes the installation, operation, repair and maintenance of water distribution lines, service connections, and appurtenances such as valves and hydrants on a day-to-day basis.

“Operate” may include performance of day-to-day maintenance, laboratory, administration, or engineering work or duties with respect to reservoirs, transmission lines, pumping stations, meters and pressure reducing/regulating stations so long as the primary function of the operator involves control of the distribution network.

“Operate” does NOT include maintenance, laboratory, administration, engineering, reservoir, transmission, metering, pumping or pressure/regulating functions not directly involved with major day-to-day distribution network activities.

TYPICAL DUTIES OF A WATER DISTRIBUTION SYSTEM OPERATOR

1. Place barricades, signs, and traffic cones around work sites to protect operators and public.
2. Excavate trenches and install shoring.
3. Lay, connect, test and disinfect water mains.
4. Tap into water mains.
5. Flush and clean water mains.
6. Locate and repair water main leaks.
7. Read and update water distribution system maps and “as built” plans.
8. Operate and maintain deep wells.
9. Collect and transport water samples.
10. Clean and disinfect storage tanks and reservoirs.
11. Protect water mains and storage facilities from corrosion effects.
12. Observe pump motors to detect unusual noises, vibrations, or excessive heat.
13. Adjust and clean pump seals and packing glands and clean mechanical seals.
14. Repair and overhaul pumps, motors, chlorinators, and control valves.
15. Safely load and unload dry and liquid chemicals.
16. Keep records and prepare reports.
17. Estimate and justify budget requests for supplies and equipment.
18. Start up or shut down pumps as necessary to regulate system flows and pressures.
19. Perform efficiency tests on pumps and related equipment.
20. Troubleshoot minor electrical and mechanical equipment problems and correct.
21. Detect hazardous atmospheres in confined spaces and correct before entry.
22. Conduct safety inspections, follow safety rules for waterworks facilities, and develop and conduct tailgate safety meetings.
23. Troubleshoot to locate the causes of water quality complaints.
24. Discuss with the public their concerns regarding the quality of the water they receive.
25. Communicate effectively with other operators and supervisors on the appropriate technical level.
26. Test, repair, and maintain fire hydrants.
27. Thaw frozen lines and service.
28. Locate and eliminate cross-connection or potential cross-connection.
29. Read water meters.
30. Collect and submit water samples.
31. Locate, operate, maintain and repair valves.

WASTEWATER TREATMENT OPERATION

“Operate” means the performance of day-to-day activities primarily consisting of the control of any process, which affects the quality of the wastewater effluent.

“Operate” may include performance of day-to-day maintenance, laboratory, administration, special study or engineering work so long as the primary function of the operator involves process control.

“Operate” does NOT include maintenance, laboratory, administration, special study or engineering functions not directly involved with major day-to-day process control operational activities.

TYPICAL DUTIES OF A WASTEWATER TREATMENT PLANT OPERATOR

1. Start up, shut down and make periodic operating checks of plant equipment, such as pumping systems, chemical feeders, auxiliary equipment (compressors), measuring and control systems.
2. Perform preventive maintenance, such as lubrication, operating adjustments, cleaning and painting equipment.
3. Load and unload chemicals, such as chlorine cylinders, bulk liquids, powdered chemicals and bagged chemicals using chemical-handling equipment such as fork lifts and hoists, and by hand.
4. Perform corrective maintenance on plant mechanical equipment, for example, chemical feed pumps and small units.
5. Maintain plant records, including operating logs, daily diaries, monthly and annual reports, chemical inventories, and data logs.
6. Monitor the status of plant operating guidelines, such as flows, pressures, chemical feeds, levels, and water quality indicators by reference to measuring systems and make the appropriate process changes.
7. Collect representative water samples and perform laboratory tests on samples for BODs, Suspended Solids, chlorine residual, and other tests as required.
8. Order chemicals, repair parts and tools.
9. Estimate and justify budget needs for equipment and supplies.
10. Conduct safety inspections, follow safety rules for plant operations, and develop and conduct tailgate safety meetings.
11. Discuss water pollution control with the public, conduct plant tours (especially for school children), and participate in department/municipal public relations program.
12. Communicate effectively with other operators and supervisors on the appropriate technical level.
13. Make calculations to determine chemical feed rates, flow quantities, detention and contact times, and hydraulic loading as required for plant operation.
14. Interpret laboratory results and make the appropriate process changes to ensure optimum plant operation.
15. Fulfill all requirements of the Approval or registration.
16. Clean and dispose of debris from bar screens, grit tanks, and sumps in a safe and acceptable manner.
17. Monitor effluent impact on receiving stream and drainage courses.
18. Manage the treatment and disposal of sludge.
19. Monitor and adjust rates of sludge generation, return and wasting.

WASTEWATER COLLECTION OPERATION

“Operate” means the performance of day-to-day activities primarily consisting of the control of the collection network, which affects the quality of the wastewater, the state of repair of the sewers or appurtenances, or the reliability of the collection service. This includes the installation, operation, repair and maintenance of wastewater collection sewers, service connections, manholes and pumping or lift stations.

“Operate” may include performance of day to day maintenance, laboratory, administration, or engineering work or duties with respect to lift stations, force mains, pumping stations, wastewater treatment facilities or collection lines so long as the primary function of the operator involves control of the collection network.

“Operate” does not include maintenance, laboratory, administration, or engineering or pumping functions not directly involved with major day-to-day collection network activities

TYPICAL DUTIES OF A WASTEWATER COLLECTION SYSTEM OPERATOR

1. Place barricades, signs, and traffic cones around work sites to protect operators and public.
2. Excavate trenches and install shoring.
3. Lay, connect, and test sewer lines.
4. Tap into sewer lines.
5. Flush and clean sewer lines.
6. Read and update wastewater collection system maps and “as built” plans.
7. Operate and maintain wastewater lift stations.
8. Observe pump motors to detect unusual noises, vibrations, or excessive heat.
9. Adjust and clean pump seals and packing glands and also clean mechanical seals.
10. Repair and overhaul pumps, motors, chlorinators, and control valves.
11. Safely load and unload dry and liquid chemicals.
12. Keep records and prepare reports.
13. Estimate and justify budget requests for supplies and equipment.
14. Start up or shut down pumps as necessary to regulate system flows and pressures.
15. Perform efficiency tests on pumps and related equipment.
16. Troubleshoot minor electrical and mechanical equipment problems and correct.
17. Conduct safety inspections, follow safety rules for wastewater facilities, and develop and conduct tailgate safety programs.
18. Detect hazardous atmospheres in confined spaces and correct before entry.
19. Troubleshoot to locate the causes of customer complaints.
20. Communicate effectively with other operators and supervisors on the technical level expected for your position.
21. Check lift station ventilation system.
22. Locate and eliminate cross-connections to storm sewers.

APPENDIX V
SUMMARY OF
APPLICABLE LEGISLATION



APPENDIX V – SUMMARY OF APPLICABLE LEGISLATION

Certification of water and wastewater operators is regulated in Alberta by the following legislation:

Environmental Protection and Enhancement Act

Potable Water Regulations
(Alberta Regulation 277/2003)

Wastewater and Storm Drainage Regulation
(Alberta Regulation 119/1993)

Wastewater and Storm Drainage (Ministerial)
Regulation (Alberta Regulation 120/1993)

Activities Designation Regulation
(Alberta Regulation 276/2003)

The official Act and Regulations as published in the Alberta Gazette, should be consulted for purposes of official interpretation.

Copies may be obtained from the Queens Printer for Alberta at the following addresses:

Publication Services	Publications Services
Main Floor Park Plaza 10611 – 98 Avenue EDMONTON, AB, T5G 2Y5 Phone: 780-427-4952	Main Floor, McDougall Center 455 - 6TH Street SW CALGARY, AB, T2P 4E8 Phone: 403-297-6251

Following are definitions and a brief summary of the applicable parts of the legislation.

A. ENVIRONMENTAL PROTECTION AND ENHANCEMENT ACT

s.1 Definitions:

Approval means an approval issued under this Act in respect of an activity, and includes the renewal of an approval.

Certificate of qualification means a certificate of qualification issued under section 82, including the renewal of such a certificate, and a certificate or other qualification from another jurisdiction that is accepted under the regulations as a certificate of qualification for the purposes of this Act.

Local authority means

- i). the corporation of a city, town, village, summer village, municipal district or specialized municipality,

- ii). in the case of an improvement district, the Minister responsible for the Municipal Government Act,
- iii). in the case of a special area, the Minister responsible for the Special Areas Act,
- iv). a settlement under the Metis Settlements Act,
- v). a regional services commission under Part 15.1 of the Municipal Government Act, and
- vi). a regional health authority under the Regional Health Authorities Act.

Minister means the Minister determined under section 16 of the Government Organization Act as the Minister responsible for this Act.

Municipality means the geographical area of a city, town, village, summer village, municipal district, specialized municipality, improvement district, special area or settlement area within the meaning of the Metis Settlements Act.

Potable water means water that is supplied by a waterworks system and is used for drinking, cooking, dish washing or other domestic purposes requiring water that is suitable for human consumption.

Wastewater system means a system for collecting, treating and disposing of wastewater and includes any or all of the following:

- i). sewers and pumping stations that make up a wastewater collection system,
- ii). sewers and pumping stations that transport untreated wastewater from a wastewater collection system to a wastewater treatment plant,
- iii). wastewater treatment plants facilities that provide storage for treated wastewater,
- iv). wastewater sludge treatment and disposal facilities,
- v). sewers that transport treated wastewater from a wastewater treatment plant to the place where it is disposed of,
- vi). treated wastewater outfall facilities, including the outfall structures to a watercourse or any appurtenances for disposal of treated wastewater to land or to wetlands.

Water distribution system means a system of pipes, valves, fittings and appurtenances, including associated pressure reducing stations, that is used to convey potable water in a waterworks system to a service connection.

Water well means an opening in the ground, whether drilled or altered from its natural state, that is used for

- i). The production of groundwater for any purpose,
- ii). Obtaining data on groundwater, or
- iii). Recharging an underground formation from which groundwater can be recovered,

and includes any related equipment, buildings, structures and appurtenances, but does not include a dugout.

Waterworks system means any system providing potable water to a city, town, specialized municipality, village, summer village, hamlet, settlement area as defined in the Metis Settlements Act, municipal development, industrial development, privately owned development or private utility, and includes any or all of the following components:

- i). Water wells connected to water supply lines, surface water intakes or infiltration galleries that constitute the water supply,
- ii). Water supply lines,
- iii). On-stream and off-stream water storage facilities,
- iv). Water pumphouses,
- v). Water treatment plants
- vi). Potable water transmission mains,
- vii). Potable water storage facilities,
- viii). Potable water pumping facilities,
- ix). Water distribution systems,
- x). Watering points.

s.79 Certificate of Qualification Required

Requires any person, who is going to commence or continue an activity designated by the Activities Designation Regulation as an activity that requires a certificate of qualification, to operate only if they hold the appropriate certificate of qualification.

s.80 Issuance of Certificate of Qualification
Defines the designated authority who may issue a certificate of qualification.

s.81 Application for Certificate of Qualification
Defines the process for making application for a certificate of qualification.

s.82 Issuance of Certificate of Qualification
Gives the designated authority the right to issue a certificate of qualification and further states that terms and conditions may be added to the certificate of qualification if deemed appropriate.

s.83 Amendment and Cancellation
Gives the designated authority the right to amend, add or delete, a term or condition of a certificate of qualification, as well as the right to suspend or cancel a certificate of qualification, and to correct any clerical errors in a certificate of qualification. It also provides for a process for the designated authority to do these things.

s.83.1 Compliance with Code of Practice
Requires any person, who is going to commence or continue an activity designated by regulations as an activity that requires a registration and is governed by a code of practice, to operate only if they hold the appropriate registration and abide by the appropriate code of practice.

s.84 Security
Requires that an applicant must, if required by regulation, provide financial or other security and carry insurance in respect of the activity they are conducting to which a required certificate of qualification relates.

s.85 Ministerial Regulations
Defines which regulations the Minister of Environment may amend, including:

Designating activities that require a certificate of qualification.

Defining the procedure for the submission of application for certificates of qualification, the form and content of the applications, the conditions required to be met by applicants and the kinds of plans, specifications, etc. that must accompany applications, if any

The administrative and referral procedures by which certificates of qualifications, and amendments to certificates may be dealt with

s.86 **Lieutenant Governor in Council Regulations**
Defines which regulations the Lieutenant Governor in Council may amend, including:

Terms and conditions on which certificates of qualification may be granted

Prescribing the length of time certificates of qualification may be issued

Details of security required

C. POTABLE WATER REGULATION

s.1 **Definitions:**

Certified Operator means a person who holds a valid certificate of qualification of the appropriate level issued under section 15 of this Regulation.

Director means the person designated by Ministerial Order as Director for the purposes of this Regulation.

Hamlet means an unincorporated community that has been designated as a hamlet in accordance with the Municipal Government Act.

Industrial development means any development on the site of a plant referred to in section 2 of the Schedule of Activities in the Environmental Protection and Enhancement Act.

Municipal development means a development that consists of 2 or more lots but does not include a city, town, specialized municipality, village, summer village, settlement as defined in the Metis Settlements Act, hamlet, privately owned development or industrial development.

Owner of a waterworks system means

- i). The local authority of a city, town, specialized municipality, village, summer village or settlement as defined in the Metis Settlements Act in which the waterworks system is located,
 - ii). *For a hamlet*
 - a). A cooperative, as defined in the Cooperatives Act, formed by the individual lot owners served by the hamlet's waterworks system, or
 - b). If no cooperative exists, the local authority of the municipal district, improvement district, specialized municipality or special area in which the hamlet's waterworks system is located
 - iii). *For a municipal development,*
 - a). The local authority of the municipal district, improvement district, specialized municipality or special area in which the municipal development's waterworks system is located,
 - b). *The owner of a private utility, or*
 - c). Where neither a) or b) applies, the collection of individual lot owners located in a municipal development that is served by the waterworks system.
 - iv). For a privately owned development, the owner of the privately owned development
 - v). For a waterworks system owned by a regional services commission, the regional services commission that owns the waterworks system,
 - vi). For a waterworks system that is a private utility, the owner of the private utility,
 - vii). For an industrial development, the owner of the industrial development in which the waterworks system is located,
 - viii). For a waterworks system that is a watering point, the owner of the watering point.
- Person responsible for a waterworks system** means

- i). The owner of the waterworks system,
- ii). The operator of the waterworks system,
- iii). The local authority that contracts to obtain potable water from the waterworks system,

- iv). The local authority that grants a franchise for the supply of potable water by the waterworks system,
- v). The approval holder or registration holder, as the case may be, for the waterworks system,
- vi). Any successor, assignee, executor or administrator, receiver, receiver-manager or trustee of a person referred to in subclause i), ii), iii), iv) or v) and
- vii). Any person who acts as the principal or agent of a person referred to in subclause i), ii), iii), iv), v) or vi).

Privately owned development means a recreational development, school, mobile home park, restaurant, motel, community hall, work camp, holiday trailer park, campsite, picnic site, information centre or other similar development, including such a development owned or operated by the Government, that is on a parcel of land that is not subdivided, but does not include

- i). A single family dwelling, or
- ii). A farmstead

Private utility means a waterworks system that is owned and operated by a person other than a person referred to in the definition of *owner of a waterworks system* (listed above), but does not include a waterworks system that services only a single family dwelling or a farmstead.

Water distribution system means a system of pipes, valves, fittings and appurtenances, including associated pressure reducing stations, that is used to convey potable water in a waterworks system to a service connection.

Water treatment plant means the physical components of the waterworks system that are used to produce potable water including components associated with the management of any wastes generated during treatment.

Watering point means a waterworks system that provides potable water in bulk to the public.

s.2

Duty to comply with regulations

Requires the person responsible for a waterworks system to comply with the regulation.

s.14 *Certified operator required*

Requires the operation of a water treatment plant and a water distribution system in a waterworks system to be performed by, or under the direction of, a person who holds a valid certificate of qualification, at the applicable level, as set out in an approval or the applicable code of practice.

Defines responsibility of the person responsible for a waterworks system to ensure:

- *the appropriate number of certified operators available to perform or direct the operation of the water treatment plant or water distribution system never falls below the applicable number as set out in an approval or code of practice*
- *the names of the certified operators are reported to the Director, including any changes that may occur over time*

s.15 *Certification of operators*

Provides the Director the ability to issue different types and levels of certificate of qualification for Water Treatment Operator or Water Distribution Operator, as described in the latest edition of the Water and Wastewater Operators Certification Guidelines, published by Alberta Environment.

Also outlines the steps an applicant must follow to obtain a certificate of qualification or a renewal of a certificate of qualification.

D. WASTEWATER AND STORM DRAINAGE (MINISTERIAL) REGULATION

s.1 *Definitions:*

Certified operator means a person who holds a valid certificate of qualification of the appropriate class issued under section 3 of this regulation.

Director means the person designated by Ministerial Order as the Director for the purposes of this Regulation.

- s.2 **Certified operators required**
Requires the operation of a wastewater treatment plant or wastewater collection system in a wastewater system to be, at all times, performed by, or under the direction of, a person who holds a valid certificate at the applicable level, as set out in an approval or applicable code of practice.
- Defines responsibility of the person responsible for a wastewater system to ensure:
- the appropriate number of certified operators available to perform or direct the operation of the wastewater plant never falls below the applicable number as set out in an approval or code of practice
 - the names of the certified operators are reported to the Director, including any changes that may occur over time

- s.3 **Certification of operators**
Provides the Director the ability to issue different types and levels of certificate of qualification for Wastewater Treatment Operator and Wastewater Collection Operator, as described in the latest edition of the Water and Wastewater Operators Certification Guidelines, published by Alberta Environment.
- Also outlines the steps an applicant must follow to obtain a certificate of qualification or a renewal of a certificate of qualification.

E. WASTEWATER AND STORM DRAINAGE REGULATION

- s.1 **Definitions:**
- Director** means the person designated by Ministerial Order as the Director for the purposes of this Regulation.
- Hamlet** means an unincorporated community that has been designated as a hamlet in accordance with the Municipal Government Act.
- Industrial development means any development on the site of a plant.

Municipal development means any development that consists of 2 or more lots, but does not include a city, town, specialized municipality, village, summer village, hamlet, settlement area as defined in the Metis Settlements Act, privately owned development or industrial development.

Owner of a wastewater system or storm drainage system means

- i). The local authority of a city, town, specialized municipality, village, summer village or settlement area as defined in the Metis Settlements Act in which the wastewater system or storm drainage system is located,
- ii). For a hamlet
 - a). A cooperative, as defined in the Cooperatives Act, formed by the individual lot owners served by the hamlet’s wastewater system or storm drainage system, or
 - b). If no cooperative exists, the local authority of the municipal district, improvement district, specialized municipality or special area in which the hamlet’s wastewater system or storm drainage system is located
- iii). For a municipal development
 - a). The local authority of the municipal district, improvement district, specialized municipality or special area in which the municipal development’s wastewater system or storm drainage system is located
 - b). The owner of a private utility, or
 - c). Where neither a) nor b) applies, the collection of individual lot owners located in the municipal development that is served by the wastewater system or storm drainage system
- iv). For a privately owned development, the owner of the privately owned development
- v). For a wastewater system or storm drainage system owned by a regional services commission, the regional services commission that owns the wastewater system or storm drainage system
- vi). For a wastewater system or storm drainage system that is a private utility, the owner of the private utility.

- vii). For an industrial development, the owner of the industrial development in which the wastewater system or storm drainage system is located.

Person responsible for a wastewater system or storm drainage system means

- i). The owner of the wastewater system or storm drainage system,
- ii). The operator of the wastewater system or storm drainage system,
- iii). The local authority that grants a franchise for the treatment and disposal of wastewater at the wastewater system,
 - iii.1). The approval holder or registration holder, as the case may be, for the wastewater system or storm drainage system,
- iv). Any successor, assignee, executor or administrator, receiver, receiver-manager or trustee of a person referred to in subclause i), ii), iii) or iii.1) and
- v). Any person who acts as the principal or agent of a person referred to in subclause i), ii), iii), iii.1) or iv).

Plant means all buildings, structures, process equipment, pipelines, vessels, storage and material handling facilities, roadways and other installations, used in and for any activity listed in section 2 of the Schedule of Activities in the Act, including the land, other than undeveloped land, that is used for the purposes of the activity.

Privately owned development means a recreational development, school, mobile home park, restaurant, motel, community hall, work camp, holiday trailer park, campsite, picnic site, information centre or other similar development, including such a development owned or operated by the Government, that is on a parcel of land that is not subdivided, but does not include a single family dwelling or a farmstead.

Private utility means a wastewater system or storm drainage system owned and operated by a person other than a local authority, municipal development, industrial development or privately owned development, but does not include a system that services only a single family dwelling or a farmstead.

Wastewater means domestic wastewater and may include industrial wastewater.

Wastewater collection system means a system of sewers, valves, fittings, pumping stations and appurtenances that is used to collect wastewater, up to and including the service connection.

Wastewater treatment plant means any structure, thing or process used for physical, chemical, biological or radiological treatment of wastewater, and includes a structure, thing or process used for

Wastewater storage,

Treated wastewater use and disposal, and

Sludge treatment, storage and disposal.

s.2 *Application of regulation*

Requires that this regulation apply to a wastewater system or storm drainage system as designated in the Activities Designation Regulation (Schedule 1, Division 2, Part 7 or Schedule 2, Division 2), including replacements, extensions, additions and modifications referred to in the Notes in those provisions.

F. ACTIVITIES DESIGNATION REGULATION

s.5 *Designation of activities*

Lists the activities in **Schedule 1** that require an **approval** to operate, and lists the activities in **Schedule 2** that require a **registration** to operate.

Schedule 1, Division 2: Substance Release, Part 7: Wastewater

- (g) the construction, operation or reclamation of a wastewater system that uses a wastewater treatment plant other than a wastewater lagoon, and

- i). that
 - a). serves a city, town, specialized municipality, village, summer village, hamlet, settlement area as defined in the Metis Settlements Act, industrial development, municipal development or privately owned development
 - b). is owned by a regional services commission, or
 - c). is a private utility, and
- ii). that
 - a). discharges wastewater off the site of the development, or
 - b). is designed to treat more than 25 cubic metres of wastewater per day.

NOTE:

Clause (g) does not apply to

- i). *the extension of the wastewater collection system forming part of a wastewater system,*
- ii). *replacement of a portion of the wastewater collection system forming part of a wastewater system,*
- iii). *irrigation using treated wastewater from a wastewater system, or*
- iv). *application of sludge from a wastewater system to land, where the wastewater system is approved or registered under the Act.*

Schedule 1, Division 5: Potable Water

- a). the construction, operation or reclamation of a waterworks system
 - i). that
 - a). serves a city, town, specialized municipality, village, summer village, hamlet, settlement area as defined in the Metis Settlements Act, industrial development, municipal development or privately owned development,
 - b). is a private utility, or a watering point, or
 - c). is owned by a regional services commission, and
 - ii). that uses as the source of its water supply
 - a). surface water, or
 - b). groundwater other than high quality groundwater.

NOTE:

Clause a). does not apply to

- i). *the extension of the water distribution system forming part of a waterworks system, or*
- ii). *replacement of a portion of the water distribution system forming part of a waterworks system, or*
- iii). *the addition or modification of treated water storage, forming part of a waterworks system, where the waterworks system is approved or registered under the Act.*

Schedule 2, Division 2, Substance Release

- d). the construction, operation or reclamation of a wastewater system that uses a wastewater lagoon as the wastewater treatment plant, and
 - i). that
 - a). services a city, town, specialized municipality, village, summer village, hamlet, settlement area as defined in the Metis Settlements Act, industrial development, municipal development or privately owned development,
 - b). is owned by a regional services commission, or
 - c). is a private utility, and
 - ii). that
 - a). discharges wastewater off the site of the development, *or*
 - b). is designed to treat more than 25 cubic metres of wastewater per day
- e). the construction, operation or reclamation of a wastewater collection system,
 - i). that
 - a). serves a city, town, specialized municipality, village, summer village, hamlet, settlement area as defined in the Metis Settlements Act, industrial development, municipal development or privately owned development,
 - b). is owned by a regional services commission, or
 - c). is a private utility, and
 - ii). that discharges into a wastewater system that holds a current approval or registration under the Act.
- f). the construction, operation or reclamation of a storm drainage system for storm drainage in a city, town, specialized municipality, village, summer village, hamlet, settlement area as defined by the Metis Settlements Act, municipal development or privately owned development, but does not include a storm drainage system that collects, stores or disposes of storm drainage solely from agricultural land or land on which farms are located.

NOTE:

Clauses (d), (e) and (f) do not apply to

- i). the extension of a storm drainage collection system forming part of a wastewater system,*
- ii). the replacement of a portion of a storm drainage collection system forming part of a wastewater system,*
- iii). the extension of a wastewater collection system forming part of a wastewater system,*
- iv). the replacement of a portion of a wastewater collection system forming part of a wastewater system,*
- v). the addition or modification of a storm drainage treatment facility forming part of a wastewater system,*
- vi). irrigation using treated wastewater from a wastewater system, or*
- vii). application of sludge from a wastewater system to land, where the wastewater system is approved or registered under the Act.*

Schedule 2, Division 5, Potable Water

- a). the construction, operation or reclamation of a waterworks system
 - i). that
 - a). serves a city, town, specialized municipality, village, summer village or settlement area as defined in the Metis Settlements Act,
 - b). is a private utility, or
 - c). is owned by a regional services commission, and
 - ii). that
 - a). that uses high quality groundwater as the source of its water supply
- b). the construction, operation or reclamation of a waterworks system
 - i). that
 - a). serves a city, town, specialized municipality, village, summer village or settlement area as defined in the Metis Settlements Act,
 - b). is a private utility, or
 - c).
 - i. is owned by a regional services commission, and
 - ii. that consists solely of a water distribution system that uses as the source of its water supply potable water from a waterworks system that holds a current approval or registration under the Act
- c). the construction, operation or reclamation of a waterworks system
 - i. that serves a hamlet or a municipal development
 - ii. that uses high quality groundwater as the source of its water supply,
 - iii. *and that has*
 - a). 15 or more service connections, or
 - b). 3 or more kilometers of water distribution system
- d). the construction, operation or reclamation of a waterworks system
 - i). that serves a hamlet or a municipal development,
 - ii). that consists solely of a water distribution system that uses as the source of its water supply potable water from a waterworks system that holds a current approval or registration under the Act, and
 - iii). that has a). 15 or more service connections, or b). 3 or more kilometers of water distribution system

NOTE:

Clauses (a), (b), (c) and (d) do not apply to

- i) the extension of the water distribution system forming part of a waterworks system,***
- ii). replacement of a portion of the water distribution system forming part of a waterworks system, or***
- iii). the addition or modification of treated water storage in a waterworks system, where the waterworks system is approved or registered under the Act.***

WATER

WATER AND WASTEWATER OPERATORS' CERTIFICATION GUIDELINES

A GUIDELINE BOOKLET DESIGNED BY OTHONORAFIX

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