

Operator Certification Bulletin | Winter 2016/17

Drinking Water and Wastewater Operator Certification News

For more news or information please visit
www.ontario.ca/page/drinking-water or www.owwco.ca

What's Coming Up

Changes to Requirements for Drinking Water Operator-in-Training Certification

On July 1, 2017, changes to certification requirements for Drinking Water Operator-in-Training (OIT) Certification will take effect.

What's changing?

All Drinking Water OIT Certificates will be issued for 36 months

Temporary Drinking Water OIT certificates will no longer be issued

OITs will be permitted to operate limited systems under the supervision of an Operator-in-Charge or Overall Responsible Operator

Why?

Drinking Water OIT Certificates are valid for 16 months. To have an OIT certificate extended to 36 months, drinking water OITs must complete the mandatory Entry Level Course (ELC) before their certificate expires. This change will give Drinking Water OITs more time to complete the ELC.

Also, currently Drinking Water OITs who want to upgrade their certificates to a higher class must have gained one year experience before their 16 month certificates expire. Issuing all drinking water OIT certificates for 36 months will remove potential barriers for college students entering the profession by giving them more time to meet their experience requirements.

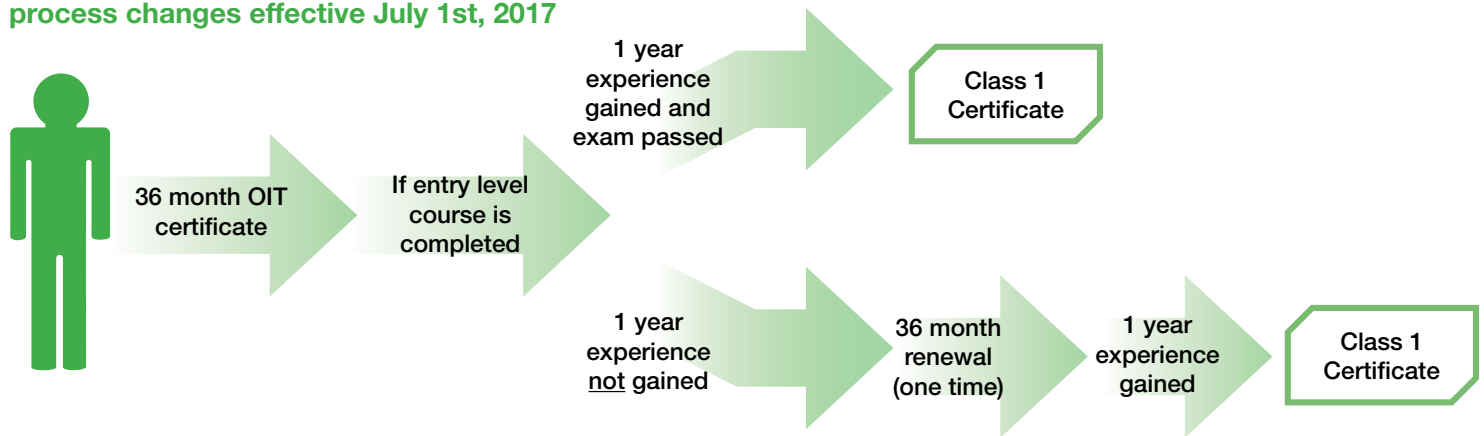
Temporary certificates are valid for 12 months and are issued to individuals who do not have the required one year experience to obtain a Class 1 drinking water certificate. A temporary OIT certificate can be renewed up to four times, which often results in multiple applications and confusion among applicants. This change will help simplify the overall certification process for drinking water OITs.

Drinking Water OITs can operate larger and more complex systems than Limited Systems under the supervision of an Operator-in-Charge or Overall Responsible Operator; however, under the current regulation, OITs who work for operating authorities and operate more complex systems must still take a separate course and pass an additional exam to obtain a limited system certificate in order to operate these systems.

By allowing Drinking Water OITs to operate limited systems, the ministry is removing unnecessary barriers and providing owners of Limited Systems, including First Nations, greater access to more individuals who can operate their systems.

These changes are intended to streamline the OIT certification process. The diagram below illustrates how the certification process for drinking water OITs will change on July 1, 2017.

Drinking Water Operator-In-Training certificate process changes effective July 1st, 2017



The questions and answers below provide some clarification:

Q1. I have a drinking water Operator-in-Training (OIT) certificate which expires after July 1, 2017 and I have not completed the Entry Level Course for Drinking Water Operators. What happens to my certificate when it expires?

If you have not completed the Entry Level Course for Drinking Water Operators through the Walkerton Clean Water Centre by July 1, 2017, you may request that your OIT certificate be re-issued. The new certificate will expire 36 months after it is issued. To have your certificate reissued, submit a completed *Operator-in-Training Certificate and Licence Issuance Form* with your fee payment (\$40.00).

Q2. My drinking water OIT certificate expires after July 1, 2017 and I completed the Entry Level Course for Drinking Water Operators before July 1, 2017. What happens to my certificate when it expires?

If you currently have a 16 month certificate and have completed the Entry Level Course by July 1, 2017, your certificate will be extended to 3 years from the original issue date. There is no fee for this extension.

Note that OITs still cannot make operational decisions within a drinking water system, and they are required to work under the supervision of an Operator-in-Charge or an Overall Responsible Operator.

A proposal to amend Ontario Regulation 128/04 was posted on the Environmental Registry ([#12-8244](#)) from August 23 to October 21 for public comment. All feedback received during that period was considered as part of the decision-making process by the ministry.

For more information on the regulatory amendments taking effect on July 1, 2017, read the *Decision Notice*.

Upcoming Conferences and Industry Events in Ontario

Event	Presented by	Date	Location
50th International Conference on Water Management Modelling www.icwmm.org	Computational Hydraulics International	Mar 1 – 2	Toronto
2017 OOWA Annual Conference and Trade Show: Treatment, Optimization and Service www.oowa.org/eventsmenu/oowa-conference	OOWA	Mar 25 – 27	Niagara Falls
Small Systems/Young Professionals Joint Seminar www.owwa.ca/event/small-systems-young-professionals-joint-seminar	OWWA Young Professionals & Small Systems Committees	Mar 29	Burlington
WEAO Technical Symposium and OPCEA Exhibition, 2017 www.weao.org/annual_weao_technical_symposium_opcea_exhibition_2017	WEAO	Apr 2 – 4	Ottawa
South Central Ontario Water Works Association Spring Conference (SCOWWA) www.owwa.ca/event/south-central-ontario-water-works-association-spring-conference	SCOWWA	Apr 5	St. Catharines
Northwestern Ontario Municipal Association (NOMA) Annual Conference and Annual General Meeting www.noma.on.ca/agm	NOMA	Apr 26 – 28	Thunder Bay
2017 Ontario's Water Conference and Trade Show waterconference.owwa.ca	OWWA, OMWA & OWWEA	May 7 – 10	Niagara Falls

OMWA: Ontario Municipal Water Association

OOWA: Ontario Onsite Wastewater Association

OPCEA: Ontario Pollution Control Equipment Organization

OWWA: Ontario Water Works Association

OWWEA: Ontario Water Works Equipment Association

WEAO: Water Environment Association of Ontario

New Operator Certification Exams for all Levelled Certificates

Ontario is launching new exams starting May 2017. The exams were developed by the Association of Boards of Certification (ABC) based on feedback from thousands of operators who responded to their international job analysis survey conducted two years ago.

The new exam questions were vetted by hundreds of operators, including those from

Ontario and across Canada. As the exams will be used throughout North America, the questions and answers will include both metric and imperial units. New Need-to-Know guides with more detailed information about the exam content are being developed and will soon be available on www.owwco.ca.

The new exams will be launched in May 2017 for a one month period. They will be reintroduced in the fall.

Did You Know... ?

Meet the Aboriginal Water and Wastewater Association of Ontario

AWWAO is a member-focussed, non-profit organization that is dedicated to assuring that First Nations water and wastewater treatment plant operators are confident, efficient and effective in managing the purification of water and the treatment of wastewater in their community. They do this by supporting education and training for First Nations water and wastewater operators, and by facilitating information exchanges between their members, the public, Chiefs and Councils.

AWWAO's Goals

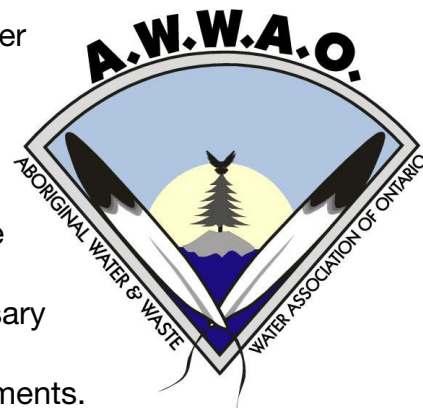
- To update and inform members about issues that affect water treatment;
- To interact with persons in the various fields of water expertise;
- To exchange information and ideas to other members, the public, Chiefs and Councils; and
- To promote the concerns of their membership through a collective voice.

Through their [website](#) and quarterly newsletter, the [Waterdrum](#), AWWAO provides a forum for information sharing and networking among plant operators and other persons of interest, promoting the importance of:

- Providing a safe and potable water and maintaining the highest standard of wastewater operations;
- Developing and delivering the necessary continuing education and training programs for plant operators and others who are involved in water and wastewater treatment;
- Ensuring that operators receive ongoing technical training in maintaining and upgrading their knowledge of proper water and wastewater operation and maintenance requirements;
- Involving qualified operators in the design,

construction or upgrading of water and wastewater treatment plants; and

- Ensuring that operators receive proper training that meet necessary certification and licensing requirements.



AWWAO's Membership

AWWAO's membership includes professionals from Ontario First Nations, Environmental Health Officers, Tribal Councils, municipal suppliers and some government agencies.

Upcoming Events for First Nation Operators

- 22nd Annual General Meeting and Training and Tradeshow Conference in Sault Ste. Marie from February 13 to 17, 2017
- Operator Exam Prep Conference in Hamilton from March 6 to 10, 2017

AWWAO's conferences promote the development and delivery of continuing education and training programs for plant operators and others involved in water and wastewater treatment. If you are a First Nation operator in Ontario and would like to attend these conferences, please contact Sara Campbell, AWWAO Coordinator, at 807-735-1381 ext. 1660 or info@awwao.org.

The Walkerton Clean Water Centre's Pilot Testing Program

Submitted by the Walkerton Clean Water Centre (WCWC)

The WCWC provides information and education to Ontario's owners, operators, operating



authorities and First Nations drinking water systems. Through our pilot testing program, we provide relevant information to our clients to enhance their understanding of source water quality and the performance of current treatment and possible alternative options.

Under the program, WCWC sets up pilot projects to test alternative treatment parameters or technologies for specific systems. Your water is shipped to the centre in Walkerton or we visit your facility. WCWC recognizes the financial challenges faced by small system operators and does not charge for its staff time to undertake this work.

Raw water sources, specifically inland lakes, rivers and groundwater, are site specific and could be challenging to treat. Information from literature and other case studies are not always transferable because of the differences in raw water quality and testing conditions. WCWC's Pilot Testing Program fills this information gap using the approach of pilot and bench scale testing to provide more relevant and meaningful information.

Through our Pilot Testing Program, WCWC offers the following:

- continuous engagement with drinking operators throughout the project to determine and address their information needs;
- a customized learning opportunity through a knowledge transfer seminar to present and

discuss the results with the operators of the system;

- interim and final reports outlining the results of the project;
- presentations of the results at conferences to benefit other drinking water systems, all without mentioning the client name if requested; and
- addition to training materials as appropriate.

Testing can be conducted at WCWC's facility in Walkerton or on location (bench scale)

WCWC's Technology Demonstration Facility in Walkerton has a lab and many pilot systems. These systems include: a dual train conventional treatment pilot plant; ozone systems; a dissolved air floatation pilot plant; Ultraviolet Light (UV) treatment systems; and slow sand, green sand and membrane filtration systems. Some of the pilot systems can be operated side by side using the same feed water. WCWC also has the capacity to pilot advanced oxidation processes (AOP) based either on ozone or UV light.

The lab is equipped with bench top and portable instruments such as an organic carbon analyzer, jar testers, spectrophotometers, colorimeters and numerous other instruments. Depending on the scope of the project, WCWC staff can conduct bench scale tests on location as well. WCWC is working to expand its inventory of mobile pilot systems and portable instruments.

For more information, visit www.wcwc.ca/en/research/pilot-testing-services or to discuss this program, please contact:

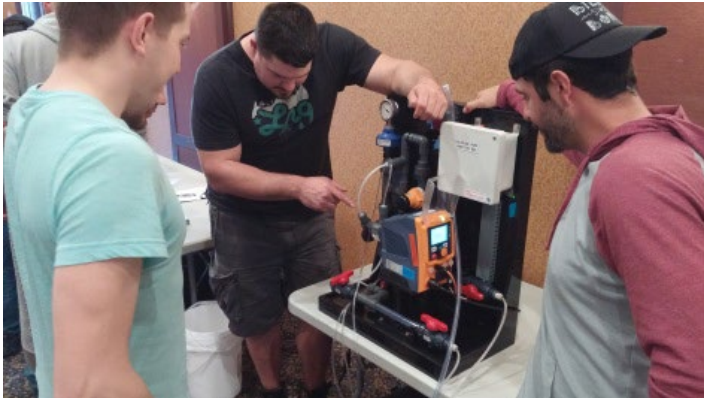
- Devendra Borikar, Ph.D., P.Eng.
Lead Technology Demonstration at dborikar@wcwc.ca / 1-866-515-0550 ext. 313; or
- Souleymane Ndiougue, Ph.D., P.Eng.
Manager, WCWC Research & Technology Institute at sndiougue@wcwc.ca / 1-866-515-0550 ext 308.

Changes to the Entry-Level Course for Drinking Water Operators

Submitted by: The Walkerton Clean Water Centre (WCWC)

In January of 2016, the Entry-Level Course for Drinking Water Operators (ELC) underwent a major revision in order to update course content and increase the hands-on activities for the week-long classroom component.

The ELC is a mandatory course for all drinking water operators developed by the Ministry of the Environment and Climate Change (MOECC). It provides new operators with a solid foundation of knowledge at the beginning of their careers. The course gives new operators a basic understanding of water characteristics and pathogens, treatment and distribution processes, and the regulations that govern water quality. This course is intended to complement the on-the-job training that Operators-in-Training receive from their employers.



More hands-on activities have been added to the classroom component.

Revisions were made to information related to log books, the watermain disinfection procedure, work performed on wells, source protection, regulatory information and drinking water standards.

An advisory committee consisting of ELC instructors, Operator Certification Working Group members, college instructors and drinking water operators/supervisors provided recommendations to the MOECC and Walkerton

Clean Water Centre (WCWC) about how the course is organized and the revised content.



As a result of the ELC revision, participants now receive three manuals associated with this course.

The ELC consists of approximately 40 hours of self-study followed by five days in the classroom. Classroom sessions are set up throughout the province and are administered and delivered by WCWC on behalf of the MOECC.

To view dates and locations, visit: www.wcwc.ca.

Finding courses is easy with the new Director approved course list on www.owwco.ca

Getting information on Director approved courses has never been easier! The **course list** on www.owwco.ca has been improved to help you find what you need.

The Director Approved Course Listing has:

- Direct links to training provider websites and their phone numbers
- Course topics to help describe courses
- Enhanced searching and sorting capability

To find training that is relevant to you, use the sorting and searching tools to display courses based on whatever criteria you enter. Below are some tips on using these new features.

Use the **Search** box to look for courses by typing whatever word(s) you want to search for, e.g., small system:

Director Approved Course Listing

Neither the Ministry of the Environment and Climate Change (MOECC) nor the Ontario Water Wastewater Certification Office (OWWCO) endorses any training course or organization listed below. The listing is provided strictly for information purposes. All attempts are made to ensure the information in the listing is accurate. The courses have not been reviewed for the quality of instruction or the accuracy of the content. The views or opinions provided in the training are those of the training providers and not those of the Ministry. Please contact the training organizations directly for more information.

The listing is updated every Monday. To view/print the entire list you can download it at <http://owwco.ca/wp-content/uploads/2015/09/Director-Approved-Course-List-09-28-2015.xlsx>.

FEEDBACK

Do you have a comment, compliment or concern about a Director Approved course? If you have taken director approved training, we're interested in what you have to say. Send us your comments, compliments or concerns by completing the form <http://owwco.ca/course-feedback/>

Show 10 entries

Search small system

ID	COURSE	CEU	PROVIDER	PHONE	WEBSITE	TOPIC	RENEWAL
12057	OWWA Small Systems Fall Webinar	0.3	ONTARIO WATER WORKS ASSOCIATION (OWWA)	(416) 231-1555	http://www.owwa.ca/	Conference	3-Nov-19
11475	Basics For Small Drinking Water Systems (Reg. O. 319/08)	0.7	WALKERTON CLEAN WATER CENTRE	(866) 545-0550	https://www.wcwc.ca/en/	Small Systems	31-Aug-19

Use the sorting feature to change the order that courses are displayed, e.g., by the highest CEU value. Flip the order by clicking on the arrow again:

Show 10 entries

ID	COURSE	CEU	PROVIDER	PHONE	WEBSITE
24	Small Water System O&M	9.0	CALIFORNIA STATE UNIVERSITY, SACRAMENTO	(916) 278-6142	https://www.csu.edu/
37	Small Water System O&M SWS-E	9.0	CALIFORNIA STATE UNIVERSITY, SACRAMENTO	(916) 278-6142	https://www.csu.edu/

Search for specific words within each column by adding your search criteria to the fields at the bottom of the table, e.g., search for 'treatment' in the **Topics** field:

39	Water Distribution System O&M WDS-E	9.0	CALIFORNIA STATE UNIVERSITY, SACRAMENTO	(916) 278-6142	https://www.owp.csus.edu/	Water Treatment and Distribution	26-Sep-19
1200	Water Treatment Class C	9.0	UNIVERSITY OF FLORIDA	(352) 392-3161	http://www.ufl.edu/	Water Treatment and Distribution	31-Jul-17
1150	Ozone System Training	6.3	SYNTEG INC	(200) 981-3376	http://synteg.com/	Water Treatment and Distribution	30-Jun-17
1974	Pumps and Motors	6.0	NORTHERN COLLEGE OF APPLIED ARTS AND TECHNOLOGY	(705) 567-9291	http://www.northern.on.ca/	Water Treatment and Distribution	31-Aug-19
12061	Water Treatment Level I & II Certification Preparation	6.0	SAULT COLLEGE	(705) 759-2554		Water Treatment and Distribution	30-Sep-19
ID	COURSE	CEU	PROVIDER	PHONE	WEBSITE	treatment	RENEWAL

If you have any questions or need help finding course information, contact the Ontario Water Wastewater Certification Office at info@owwco.ca or 416-231-2100 (toll free: 1-877-231-2122).

Operator Certification Working Group – Topics at their Latest Meetings

The Operator Certification Working Group (OCWG) met twice since our last bulletin was published. Below are some of the topics that were discussed at their Spring and Fall meetings:

May 31 meeting:

- Results from OWWCO's operator survey
- Proposed changes to the roles and responsibilities of the Overall Responsible Operator and Operator-in-Charge
- Consultations with training providers on the new course renewal process
- Demo on completing the new operator certification program 'smart' forms
- Updates to ongoing work to help promote operator certification in First Nations communities

October 12 meeting:

- Proposed changes to O. Reg. 128/04 and implications to Drinking Water Operator-in-Training and Limited System certification
- Initiatives to support operator certification in First Nations communities
- Updates from the Association of Boards of Certification (ABC) provided

at the recent Canadian Water and Wastewater Operator Certification committee meeting

- Continuing education training options for senior operators

For more information about the OCWG and their previous meetings, visit OWWCO's website, click on Resources and follow the [link](#) under the Operator Certification Working Group heading.

Preparing For Your Exam

Are you writing an exam any time soon? Find out what you can study to help you get ready.

Study guides and manuals

Visit www.owwco.ca where you can get quick and easy access to:

- Information about various exam specific study guides and manuals you can purchase
- Links to websites and order forms for study guides and manuals
- Links to need-to-know exam criteria for each type of exam, which are available at no cost

Follow the Operators link, select Writing and Examination and click on [Preparing for your Exam Guide](#).

For additional information about ordering study materials, contact OWWCO at info@owwco.ca or 416-231-2100 (toll free: 1-877-231-2122).

Exam sample questions

To help you get familiarized with the exam format, try some of the online interactive quizzes which give you immediate feedback on whether or not your answers are correct. Note that none of the

questions are duplicated from any certification exam.

Follow the links below:

- Water Environment Federation Skills Builder: [Start a Quiz](#)
- Keewaytinook Centre of Excellence: [Practice Quizzes for math, OITs and Class 1 Certification](#)

Or, give these questions a try, from the website of the [Association of Boards of Certification](#):

1. What is the main source of lead and copper in drinking water?
 - a) Atmospheric pollution
 - b) Corrosion of lead and copper in plumbing materials
 - c) Food sources
 - d) Unregulated upstream mining activities
2. Which of the following can cause overheating of mechanical equipment:
 - a) Water hammer
 - b) Under-greasing
 - c) Over-greasing
 - d) Dried out packing

3. A total chlorine dosage of 6.9 mg/L is required for disinfection. If the effluent flow is 11 700 m³/d and the hypochlorite used has 65% available chlorine, how many kg/d of hypochlorite will be required?

- a) 352 kg/d
- b) 296 kg/d
- c) 124 kg/d
- d) 55 kg/d

4. What part of a concrete pipe in a gravity sewer is most vulnerable to corrosion stemming from the effects of septic wastewater?

- a) Invert
- b) Bell
- c) Flange
- d) Crown

5. Reviewing all aspects of the wastewater treatment plant to determine what would occur during various types of emergency situations is known as a(n):

- a) Management effectiveness survey
- b) Environmental audit
- c) Comprehensive performance evaluation
- d) Vulnerability assessment

Answers: 1 b); 2 c); 3 c); 4 d); 5 d)

Consider these tips for multiple choice questions:

- Read each question carefully and thoroughly.
- Use a 'cover-up' strategy. Hide the answer choices and try to come up with your own. Then check if your answer is included as an option.
- Read all the choices before choosing your answer (usually your first choice is the right one, unless you misread the question)
- If two choices seem correct, compare them for differences to help you identify the "best" answer, not only the correct one.
- Flag any questions you cannot answer and continue working through the exam. Save time at the end to return to the skipped questions.
- When you are unsure of an answer, try to eliminate as many choices as possible to help improve your odds!

What's New?

Tips for using new smart forms

In July 2016, the ministry replaced all program forms with new smart forms, which take less time and are easier to complete. The dynamic forms change according to your needs, meaning you are only prompted to complete parts of the form that apply to your specific request. Additionally, certain fields are automatically populated based on the information you enter, for example, total years/months/days of experience based on the dates you enter, required training hours depending on the class of drinking water system you operate, and so on.

Use your computer to complete the fillable PDF form electronically. This ensures the form you submit is correctly filled out. Remember to:

- Make sure you have **Adobe Reader 8** or higher installed on your computer for the form to work properly. Click [here](#) to download a current version of Adobe Acrobat Reader.
- Carefully complete each part of the form in the order presented to ensure no mandatory sections are missed. The form will prompt you to fill out sections based on the answers you provide.

- Read and follow the instructions to help you complete the form.
- Click on the 'Highlight Existing Fields' button in Adobe Reader to see what information you need to provide.
- Save a copy of a partially completed form if you need to finish filling it out later.
- Use the 'Print Form' button provided at the bottom of each form to print your completed form. Clicking this button will take you to the section that is missing information.
- If the top of your form states '**This form has not been completed**', mandatory information is missing and your application is incomplete.

After printing your completed form:

- Make sure all sections requiring signatures are signed and dated.
- Remember to include any supporting documentation that's required.

Mail or fax your application to the ministry, care of the Ontario Water Wastewater Certification Office (OWWCO). Application forms and credit card information cannot be sent by email due to credit card security requirements.

The new forms are available on the ministry's [Central Forms Repository](#) and on the [Forms and Guidelines page](#) at www.owwco.ca.

For more information, please visit the [New Operator Certification Program Forms page](#) at www.owwco.ca.

Please Note:

Effective February 1, 2017, old forms will not be accepted and will be returned.

Reminders

Share your feedback on Director approved courses

If you've recently taken Director approved training, OWWCO wants to hear from you.

Send your comments by filling out a short online form on OWWCO's website. You can access the

link from the [Director Approved Course Listing](#) page. Your feedback and personal information will not be shared with training providers or other external sources.

All comments will be taken into consideration when courses are being reassessed for Director approval.

Course Feedback Form

Do you have a comment, complement or concern about a Director approved course? If you have taken Director approved training, we're interested in what you have to say. Send us your comments, compliments or concerns by completing the form below.

Training Provider Name (required):

Course Name (required):

Course ID (required):

Date of session:

Your Name:

Your Email:

Your Comments: