



A Newsletter for Water and Wastewater Treatment Plant Operators!

THE WATERDRUM

January 2019

Inside this issue:

Long-term drinking water advisories	1
AWWAO: About Us	2
Government of Canada moving forward with departmental changes needed to renew the relationship with Indigenous peoples	3
Preventing Frozen Pipes	4-5
Real-time monitoring technology could reduce boil-water advisories for First Nations, study finds	6-7
Southern Exam Prep Week	8
Zhiibaahaasing First Nation 2018 AWWAO Water Taste Challenge Southern Cup Winner	9
First Nations Safe Water Project	10
October 2018: Three long-term drinking water advisories lifted and one added on public systems on reserve	11-12
Congratulations on passing your exam!	12
AWWAO Feedback Results	13

Progress on lifting Long-term drinking water advisories on public systems on reserve



ALL
long-term drinking water advisories on public systems on reserve **lifted** by



78 long-term drinking water advisories lifted since November 2015

62 long-term drinking water advisories remain

Projects underway or completed as of September 30, 2018



383 water and wastewater projects to repair, upgrade or build infrastructure



55 supporting initiatives like water operator training



52 feasibility studies to determine infrastructure needs

Updated January 7, 2019

www.canada.ca/water-on-reserve

Description of progress on lifting long-term drinking water advisories on public systems on reserve

- All long-term drinking water advisories on public systems on reserve lifted by March 2021.
- 78 long-term drinking water advisories lifted since November 2015.
- 62 long-term drinking water advisories remain.
- Projects underway or completed as of September 30, 2018
 - 383 water and wastewater projects to repair, upgrade or build infrastructure
 - 55 supporting initiatives like water operator training
 - 52 feasibility studies to determine infrastructure needs





The meaning of the AWWAO logo as described by the artist:

Tree—represents Mother Earth

Sun—brings Life to our Environment

Eagle—watches over the Environment

Sky—ensures the Cycle of Water

ABOUT US

The Aboriginal Water & Wastewater Association of Ontario is an information source for water environment and Operator training and certification issues and technology. AWWAO's members include professionals from Ontario First Nations, Environmental Health Officers, Tribal Councils, Municipal Suppliers and some Government Agencies.

AWWAO is dedicated to the transfer of information and concepts regarding all areas of the water environment. As members of the American Water Works Association (AWWA), the Ontario Water Works Association (OWWA), the Water Environment Federation (WEF) and the Water Environment Association of Ontario (WEAO), we provide an invaluable network for those involved in water and wastewater industry. AWWAO, through a partnering agreement with Keewatinook Okimakanak and Health Canada co-operates and liaises with the above noted associations, and all provincial and federal government agencies. AWWAO has a volunteer seat on many of the various association's committees.

AWWAO offers its members the opportunity to:

- ◆ Be updated and informed about issues that affect the water environment.
- ◆ Interact with persons in various fields of water expertise.
- ◆ Promote concerns of the membership through a collective voice.
- ◆ Exchange information and ideas to other members, the public and Chiefs and Council.

To date, the AWWAO consistently rank the training and certification of Plant Operators as its top priority. The attainment of Certification is widely recognized as essential to performing a good job, at a high level, in the water and wastewater treatment plant operations, and an indicator of a responsible and contributing community member.

MEMBERSHIP

\$200.00 Membership Fee for First Nations Water and Wastewater Treatment Plant Operators per operator. This Membership entitles the Operator(s) to the AWWAO Newsletter, monthly bulletin, Annual Report and the Annual General Assembly and Training Conference cost reimbursement, if applicable.

\$400.00 Membership Fee for Non-Operator, Public Works Management, Administration and Management of a First Nation or Non-First Nation. This Membership entitles the Member to the AWWAO Newsletter, monthly bulletins, Annual Report and invitation to the Annual General Assembly and Training Conference.

Please Print

Name: _____

Name: _____

Name: _____

Name: _____

First Nation/Business: _____

Address: _____

Phone: _____ Fax: _____

E-mail: _____

VISION

Our Vision is to be the Association that best understands and satisfies the training, education, certification and licensing needs of Operators of Ontario First Nations. Our dedication to supporting Operators touches not only health, but safety, spirit and empowerment ... most of all knowledge.

OBJECTIVES

- ◆ To act as a voice and forum for First Nation Plant Operators in Ontario, publish a newsletter, promote communications and networking among Plant Operators and other persons interested in AWWAO's objectives;
- ◆ Promote the importance of a safe and potable water supply and the highest standard of wastewater operations;
- ◆ Promote the development and delivery of continuing education and training programs for Plant Operators and others involved in water and wastewater treatment;
- ◆ Promote the importance of technical training in maintaining and upgrading the Operator's knowledge of proper water and wastewater operation and maintenance requirements;
- ◆ Promote the importance of involving qualified Operator's in the design, construction or upgrading of water and wastewater treatment plants;
- ◆ Promote the importance of proper training, certification and licensing of Operators;
- ◆ Promote the importance of enhanced lab testing of potable water and monitoring of wastewater effluents; and
- ◆ Promote the importance of establishing an effective Operations & Maintenance Management Plan to ensure proper care is performed for the assets.

MISSION STATEMENT

We are a member oriented, non-profit Association, providing province-wide and year-round high-quality services and an annual forum for the First Nations Water and Wastewater Treatment Plant Operators, allowing for networking opportunities at the same time. We are committed to providing high quality information on the water and wastewater industry through the quarterly newsletter. We are dedicated to promoting, preserving and protecting the water, natural resources and environment through the education, training and networking of the Ontario First Nations Water and Wastewater Treatment Plant Operators.

The Aboriginal Water and Wastewater Association of Ontario's newsletter is published quarterly by the AWWAO at 41C Duke Street, Box 340, Dryden, Ontario P8N 2Z1
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E-mail: info@awwao.org

Advertising opportunities and/or submission or request of information, please contact the Association Coordinator.



Government of Canada moving forward with departmental changes needed to renew the relationship with Indigenous peoples

From: Indigenous Services Canada News Release

December 4, 2017 Ottawa, ON Government of Canada

As part of the journey towards Reconciliation, the Government of Canada has taken an important step to renew the relationship with Indigenous peoples, based on the recognition of rights, respect, co-operation and partnership, by announcing a profound shift in the way the Government delivers services and advances self-determination and self-government of Indigenous peoples.

The Government of Canada is proud to announce the creation of the Department of Indigenous Services Canada (DISC). At the same time, under the Minister of Crown-Indigenous Relations and Northern Affairs, consultations are continuing on the final form that both departments will take, including how best to increase the government's capacity to function on a distinctions basis, ensure we implement the spirit and intent of existing and future agreements with Indigenous peoples, and identify those services across the Government of Canada that are best delivered by the Department of Indigenous Services Canada.

Further, the Honourable Jane Philpott, Canada's first Minister of Indigenous Services, will lead DISC's efforts to start to bring a holistic approach to delivering the social, healthcare, and infrastructure services essential to healthy children, individuals, families and communities. The First Nations and Inuit Health Branch (FNIHB) has been formally transferred from Health Canada to the new Department of Indigenous Services Canada.

The Honourable Carolyn Bennett, as Canada's first Minister of Crown-Indigenous Relations and Northern Affairs, will lead her department's efforts to accelerate the work already begun to renew the nation-to-nation, Inuit-Crown, and government-to-government relationship between Canada and Indigenous peoples. The Prime Minister has also tasked her with modernizing institutional structures and governance so that First Nations, Inuit, and Métis Peoples can build capacity that supports implementation of their vision of self-determination.

Quotes

"Today marks an important milestone in Canada's journey towards reconciliation and the dissolution of Indigenous and Northern Affairs. I am continuing to work with First Nations, Inuit and Métis partners on the final form of the two new departments. We are tearing down the outdated and paternalistic structure of old designed to enforce the Indian Act and replacing it with new departments that are distinctions-based and rooted in the recognition of rights, respect, cooperation and partnership."

The Honourable Carolyn Bennett, M.D., P.C., M.P.
Minister of Crown-Indigenous Relations and Northern Affairs

"The creation of the Department of Indigenous Services Canada is an important development in our renewed relationship with Indigenous peoples. These structural changes will allow our government to work more effectively with Indigenous partners to provide services that improve people's day-to-day quality of life. Our work will be based on recognition and respect for the right to self-determination."

The Honourable Jane Philpott, M.D., P.C., M.P.
Minister of Indigenous Services

Quick Facts

- One fundamental measure of success will be that appropriate programs and services are increasingly delivered, not by the Government of Canada but instead by Indigenous peoples as they move to self-government.
- All funding and contractual arrangements with both departments remain active. The delivery of services will continue as usual.



Preventing Frozen Pipes



Preventing Frozen Pipes

Freezing weather may bring discomforts but of them, frozen water pipes, can be avoided with a little planning and a few simple steps. When frigid air hits, water freezes, and as it freezes, it expands causing pipes to burst and possible flooding to occur. Domestic water lines, heating and cooling systems, and sprinkle systems are all susceptible.

Before freezing weather

Preventative maintenance (building envelope-keep the cold weather outside).

- Seal/caulk windows, doors, electrical outlets and ensure weather stripping is in good condition
- Insulate wall cavities
- Insulate water pipes exposed to cold temperatures or drafts
- Preventative maintenance (heating systems).
- Maintain heating equipment according to manufacturer recommendations
- Inspect filters and piping for obstructions (dust, sludge, etc.)
- Verify that dampers, vents, and valves are in the proper positions, allowing for adequate air movement/water flow

Consider monitored low temperature alarms in strategic locations to provide warning prior to freezing conditions.

Frequently inspect (daily) unoccupied building areas susceptible to cold weather condition's for cold temperatures, drafts, dampness, water staining, etc. (vacant tenant spaces, mechanical rooms, sprinkler rooms, concealed spaces, etc.) Maintain a log of all inspections.

Know the locations of all water system piping (are lines contained in wall cavities or ceiling spaces that may experience colder temperatures than adjacent rooms?).

Keep portable electric heaters available. Note: Portable heaters should only be used as a last resort and a temporary solution. Ensure extension cord use is limited and that the heaters have tip-over protection and a thermostat.



Preventing Frozen Pipes cont'd

During freezing weather

Allow water to trickle slowly from faucets during abnormally cold weather. This helps prevent pipes from freezing.

Areas with domestic water lines:

Don't set thermostats (including vacant areas) lower than 13°C (55°F).

Buildings equipped with fire sprinkler pipes:

Areas with wet system sprinkler systems piping (including sprinkler valve rooms for wet and dry systems) must be maintained a minimum of 5°C (40°F) to be in accordance with fire code requirements intended to prevent freezing lines.

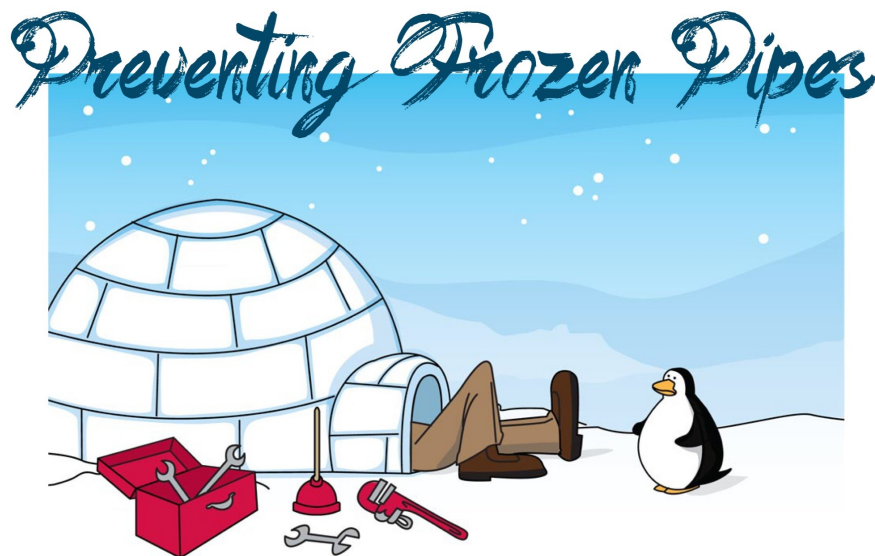
Open cabinet doors and run fans to allow warmer air to circulate around the plumbing (where piping is situated within enclosed vanities along exterior walls).

Response

Consider monitored liquid sensors in strategic locations to provide early detection of leaks. Know the location of all isolation valves and the areas they service. Doing so should facilitate a prompt response, reducing time required to stop the flow (plot locations on floor plans, identify valves located in concealed spaces using colour-coded stickers or tags). Keep tools and supplies required to shut valves readily available at all times.

About Aon

Aon plc (NYSE:AON) is a leading global professional services firm providing a broad range of risk, retirement and health solutions. Our 50,000 colleagues in 120 countries empower results for clients by using proprietary data and analytics to deliver insights that reduce volatility and improve performance.



"Just as I suspected, frozen pipes. Happens a lot in this neighborhood."

Real-time monitoring technology could reduce boil-water advisories for First Nations, study finds

By **LIAM CASEY** The Canadian Press
Mon., April 2, 2018

A study by Ontario researchers suggests real-time monitoring technology at water treatment plants on reserves could significantly reduce the number of drinking-water advisories issued for First Nations across the country.

Edward McBean, an engineering professor at the University of Guelph and his former student, Kerry Black, explored the potential benefit of the systems, which use sensors to track characteristics like flow rates and chlorine levels, in an effort to help reduce the number of precautionary boil-water advisories that can linger on reserves for weeks.



Stewart Redsky, former chief and current Alcohol/Drug Counsellor of Shoal Lake 40 First Nation, walks past one week's worth of 20 litre water bottles in the community's water storage room on Feb. 25, 2015. A new study by Ontario researchers suggest recent technological advances in water monitoring could reduce significantly the number of drinking-water advisories on First Nations across the country. (John Woods / THE CANADIAN PRESS file photo)

After analyzing such advisories and interviewing those who work on water treatment plants in several communities, the researchers suggest the number of advisories could be reduced by more than 36 per cent if real-time monitoring was implemented.

"I believe real-time monitoring is part of the solution to the water advisories on First Nations," McBean told The Canadian Press in an interview. "This method can empower communities to regain control of their water systems."

The research was published recently in the *Journal of Water Supply: Research and Technology — AQUA*. McBean said he was inspired to look into the area after Prime Minister Justin Trudeau pledged in 2016 to eliminate boil-water advisories in Indigenous communities — a goal McBean thinks is nearly impossible.

Real-time monitoring technology could reduce boil-water advisories for First Nations, study finds cont'd

"Exactly how he's going to try do that, I don't know," McBean said.

McBean decided to focus on developing a process to tackle precautionary drinking-water advisories. The idea, he said, is to reduce the number of such advisories that are not related to inadequate water quality.

"Across all Canadian communities, 78 per cent of boil-water advisories were issued on a precautionary basis due to problems with drinking water equipment or processes," the study says.

Those problems, McBean said, often do not mean a change in water quality but a boil-water advisory will nonetheless remain in effect until conditions return to normal. And water testing, especially for remote communities, takes a long time with samples being shipped off to laboratories hundreds of kilometres away, he said.

Real-time monitoring systems, McBean suggests, can deal with the matter.

There are sensors that monitor attributes that include water temperature, pH levels, and water turbidity — with alerts that can be sent in real-time to an operator who can then act swiftly on that information.

"Reliance upon real-time monitoring is an option for early identification of problems that can help to reduce both the frequency and duration of drinking-water advisories, and alert operators to problems about which they might not have been aware," said the research paper.

The study notes that some reserves have implemented real-time monitoring pilot projects. The federal government invested in such a project in 57 First Nations in Alberta in 2012, and several Ontario First Nations that were on boil-water advisories for about 1,000 days over the past 10 years have benefited from a real-time water monitoring system implemented in 2013, the paper said.

McBean acknowledged, however, that real-time monitoring is not a panacea. Water treatment plant employees interviewed for the study said they appreciated the new technology but many operators interviewed expressed concern about the security of the data and a general distrust of a third party "big brother" watching over the communities.

One community member, according to the paper, noted: "I would be concerned about who has access to this information, how it might be used, and whether it would be used against (the community)."

Real-time monitoring also requires training, which some are averse to, the paper said. And if the quality of the water going into the system is inadequate or the infrastructure is poor, real-time monitoring is irrelevant until those problems are first solved, McBean said.

McBean acknowledged that his suggestion of real-time monitoring was one part of the solution but noted that eliminating boil-water advisories is essential, whether it's by 2021 as Trudeau has promised, or at a later date.

"You cannot live without water. That's obvious, but it's important to remember for those of us who have good drinking water," McBean said. "We've got to do it. The question is how can we do it? I hope this method is a start."



Southern Exam Prep Week

AWWAO held a one week certification and CEU session (October 29-November 2, 2018) in Toronto for First Nation Operators culminating in the OWWCO Exam. There was a total of 36 operators in attendance. World Water Operator Training Company (WWOTC) provided the training for this course.



The courses and instructors for the certification week were: Michael Del Monte (OIT WT), Michael Lukich (WDI & II) and Mohammed Karim (WWTI & II).



Zhiibaahaasing First Nation 2018 AWWAO Water Taste Challenge Southern Cup Winner

The Southern Cup (formally known as the Derrick Kamanga Water Taste Challenge Cup) winner for the 2017/2018 fiscal year at the AWWAO's AGM/Conference was presented to Jonathan Riberdy from Zhiibaahaasing First Nation.

The Aboriginal Water and Wastewater Association of Ontario Director, Gary Wheatley presented the cup on behalf of the association.

Congratulations!!



Zhiibaahaasing First Nation

- ◆ Thousands have lived without love, not one without **water**. – ...
- ◆ No **Water**. ...
- ◆ **Water** is Life. ...
- ◆ Keep Calm & **Drink Water**.
- ◆ **Water** is The Driving Force of all Nature.
- ◆ **Water** is Your Best Friend for Life.
- ◆ Pure **Water** is the World's First and Foremost Medicine



First Nations Safe Water Project

First Nations Safe Water Project



First Nations Safe Water Project (FNSWP) is a First Nations led initiative to eliminate Boil Water Advisories (BWAs) and empower communities to manage their own drinking water. It is currently operational in 19 First Nations communities.

Addressing the First Nation Communities' Needs

FNSWP helps to prevent BWAs at schools, community centres, health centres, water treatment plants, and other facilities that transport, treat and provide drinking water. It identifies and helps to fix specific issues with existing water facilities instead of replacing the overall water treatment system – this saves significant money while securing safe drinking water. While connected with other First Nation communities, each community operates independently and maintains their own FNSWP.

FNSWP has three integrated components, all of which are customized to meet the needs of each participating community:

1. Provide focused **training and certification** to the local water operators
2. Provide **operational support** to the local water operators as they pursue certification
3. Deploy proven, Canadian-made technology to **monitor the quality of water** on a continuous basis

Achievements

- Eliminated long-standing BWAs in 4 of participating First Nation communities
- Trained and certified 7 indigenous water operators at various levels
- Helped predict and prevent BWAs in multiple communities
- Self-sustaining project through internal capacity created through certified training
- Permanent job opportunities for operations and maintenance created in the communities

Credibility

- Endorsements from the Assembly of First Nations through two resolutions – Resolution #65 in 2015 and Resolution #51 in 2017
- 100% fully funded by the Government for the capital and Operations and Maintenance for 19 First Nation communities thus far

The FNSWP's dedicated team can assist your community to achieve the results that are best suitable for your community's needs.



October 2018: Three long-term drinking water advisories lifted and one added on public systems on reserve

NEWS PROVIDED BY

Indigenous Services Canada

Nov 01, 2018, 07:00 ET

TRADITIONAL ALGONQUIN TERRITORY, ON and OTTAWA, Nov. 1, 2018 /CNW/ - The federal government remains steadfast and on track in its commitment to ending all long-term drinking water advisories on public systems on reserve by March 2021.

The Honourable Jane Philpott, Minister of Indigenous Services, provided the following update as part of the department's regular reporting on long-term drinking water advisories. In October 2018, three long-term drinking water advisories were lifted, and one long-term advisory was added on public systems on reserve:

- One long-term drinking water advisory was lifted by Alexis Creek in British Columbia on October 12. Upgrades were made to the pump house and an ultraviolet disinfection system was installed to restore clean water to the community. The advisory had been in place since April 1999.
- One long-term drinking water advisory was lifted by Fond du Lac Denesuline First Nation in Saskatchewan on October 19. A filter media was replaced in the water treatment system and training was provided to the plant's water operators and monitors to restore clean water to the community. The advisory had been in place since July 2017.
- One long-term drinking water advisory was lifted by Lac La Croix in Ontario on October 25. Repairs and upgrades to the water treatment system were completed to restore safe drinking water to the community. The advisory had been in place since February 2017.
- One long-term drinking water advisory was added in Nekaneet in Saskatchewan on October 26. ISC is working with the First Nation to address the issues that led to the advisory. Lifting is expected to take place in November 2018.

Additionally, two short-term advisories that were at-risk of becoming long-term were successfully lifted:

The community of Deschambault Lake at Peter Ballantyne Cree Nation in Saskatchewan lifted a short-term advisory on October 23 after a new water treatment plant was commissioned.

Makwa Sahgaiehcan First Nation in Saskatchewan lifted a short-term advisory on October 26 after operational issues resulting from a power outage were resolved.

Seventy-four long-term drinking water advisories have now been lifted on public water systems on reserve since November 2015. Work is already underway to end the remaining 67 long-term advisories and prevent further short-term advisories from becoming long-term.

Quotes

"More progress was made in October 2018 on our government's commitment to lifting all long-term drinking water advisories on public systems on reserve. Three long-term advisories were lifted, with 74 having now been lifted since November 2015. I invite all Canadians to follow progress on the work underway at www.canada.ca/water-on-reserve."



October 2018: Three long-term drinking water advisories lifted and one added on public systems on reserve, cont'd

The Honourable Jane Philpott., P.C., M.P.
Minister of Indigenous Services

Quick Facts

- A drinking water advisory becomes long-term when it has been in place for over a year.
- There were 105 long-term drinking water advisories on public drinking water systems on reserve in November 2015. As of October 31, 2018, 74 of these advisories have been resolved and 36 have been added. Working in collaboration with First Nations, the Government of Canada has committed to ending all long-term advisories on public systems on reserves by March 2021.
- Budget 2016 provided \$1.8 billion over five years toward water and wastewater infrastructure. These investments have supported 468 water and wastewater projects in 580 First Nations communities, serving 458,000 people.
- Budget 2018 provided an additional \$172.6 million over three years to help accelerate progress on lifting drinking water advisories and to ensure more infrastructure projects can be completed prior to 2021. Budget 2018 also proposes support for repairs to high risk water systems, recruitment, training and retention initiatives, and the establishment of innovative First Nations-led service delivery models.

Congratulations on passing your exam!!!

Congratulations! You've run the course and passed the exam! There are no secrets of success. It is the result of preparation and hard work. The AWWAO Board would like to congratulate the following First Nation Operators for successfully completing their course and passing the exam.



Darryl Enossed-OIT
Jonathan Ribery-WTII
Mark McLeod-WD2
Fred Johnson-OIT
Noah Paul-WTIII
Kyle Beaudette-OIT
Chris Wemigwans-WTI



AWWAO Feedback Results

Below are the results from the AWWAO Feedback. The top result of this survey states that 82% of First Nation Operators felt that AWWAO brought operators together which resulted in networking between community operators.

Questions	Percentage
1. Over the past twenty-three years how has AWWAO helped Aboriginal communities?	
Assisted communities and operators to upgrade their certification.	76
Brought operators together which resulted in networking between community operators.	82
Enabled operators to network with various suppliers, e.g.: annual trade show.	65
Other- Increased awareness and sensitives serving First Nations.	
- Served as a resource centre.	
2. What has been AWWAO's biggest accomplishments?	
Annual AWWAO Conference and Tradeshow.	76
Annual operator awards/water taste challenge	29
Opportunity to unite First Nation Operators	65
Other-Existing for 23 years under very challenging government regimes.	
-Helping us get our certification to run these plants on our own.	
3. What levels have you accomplished?	
OIT	18
Level One	12
Level Two	35
Level Three	18
4. How has AWWAO helped your career?	
Provided certification upgrading.	71
Provided CEU's for license renewals and upgrades.	76
Networking opportunities with fellow operators and suppliers.	76
Other-Innovative and sustainable use of telecom networks for ALL.	
-When I first started 15 years ago their were only a couple of certified operators. Today every native operator I meet is certified. AWWAO is the big reason why, they need to keep going.	
5. What do you feel AWWAO needs to accomplish in the future?	
Increased water training.	41
Increased wastewater training.	41
Increased CEU's.	65
Other- Expanding programs so they are available in the communities.	
-AWWAO is doing a good job.	
-Increased CEUs with increased water and wastewater training.	
-Being there to help with guidance with questions on training and operations.	
-Mandatory certificate renewal course every year.	

Thank you for completing our survey!

