



# Liquid Fuels Presentation to OPCA

Ann-Marie Barker  
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## Liquid Fuels Issues



# LFHC Issues

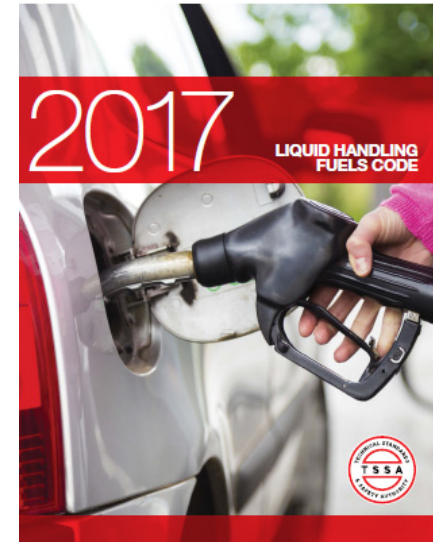
- New LFHC 2017 – what has changed
- On-Demand Mobile Fueling
- Inspection prior to backfill
- OPW Swivels
- Wiggins vs Flowmax nozzles
- Flexwell pipe only approved for underground installations so can't use it at marinas.  
ULC working on standard for aboveground pipe.

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# New LFHC 2017

- Currently finalizing the contract with CSA
- Will be sent to CSA for publishing and distribution
- Hope to publish and come into effect by end of 2017
- TSSA will put a notice on website and send out notification to license holders and contractors
- Cost \$135 for a hard or electronic copy



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# Major Changes to the LFHC - ELLD

- (a) Double-wall underground pressure piping systems that were installed prior to January 1, 2006 and were approved to one of the following standards

ORD-C107.4-1992, Ducted Flexible Underground Piping System for Flammable and Combustible Liquids

ORD-C107.7-1993, Glass-Fibre Reinforced Plastic Pipe and Fittings for Flammable and Combustible Liquids

ORD-C107.19-1992, Secondary Containment of Underground Piping for Flammable and Combustible Liquids

shall be upgraded with Electronic Line Leak Detection (ELLD) within 3 years of the effective date of the code.

- (b) If the certification for the pipe is undetermined, the piping shall be upgraded in accordance with (a).
- (c) The ELLD shall be programmed to run the 0.76 L/h test every month and the 0.38 L/h test annually and it shall shut down the STP when a leak is detected.

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# Major Changes to the LFHC – Private Cardlocks

- New section on Private Card/keylocks ***that have an annual throughput of half a million litres, or greater***, (e.g. Municipalities; trucking companies)
- Same requirements as for a retail card/keylock except for oil/water separator and under dispenser fire suppression
  - Exemption for separator & fire suppression since these sites are usually attended
  - Existing sites grandfathered
  - Exempts small PFOs that have a card/keylock system



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# Major Changes to the LFHC

- All submersible pumps, installed below grade, shall be contained in a monitored sump within 5 years.
  - The old culverts don't provide containment
  - Will require re-piping



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# Major Changes to the LFHC

- If one underground single-wall steel tank at a location or in a tank nest leaks, then all single-wall tanks at that location/nest must be removed within 12 months.
- Removal of all underground single-wall steel piping at a location within 12 months if one of those lines fails the cathodic protection test or leaks.
- Removal of underground single-wall steel tanks if out of service for one year or more.
- If an aboveground storage tank requires an anti-siphon valve and is located in a dike, then the anti-siphon valve must be located inside the dike.

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# Major Changes to the LFHC

- For suction systems, where the pump is lower than the tank causing the piping to be under pressure, an anti-syphon valve must be installed at the tank and a shear valve shall be installed under the pump.
- Manifolding of vents and vapour recovery piping is no longer allowed.
- Environmental assessment reports must identify the full extent of any petroleum product that has escaped in the area(s) where the tanks, piping or dispensers were located.

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# On-Demand Mobile Fueling

- “Mobile Gas station” – use smartphone app to order service
- Gaining popularity in some US urban centres
- Current LFHC 2007 does not specifically prohibit but the requirements make it difficult
- MGCS will be facilitating a meeting of affected regulators to determine a plan for banning or regulating on-demand mobile fueling



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# Two Inspections for New & Modified Liquid Fuel Facilities

- **Newly built facilities or modified facilities with newly installed underground equipment will require two inspections:**
  - Both inspections are necessary to verify that the equipment is being installed in accordance with the Liquid.
  - The first inspection occurs prior to the tanks and piping being back-filled. **The top of the underground tanks and the piping must be exposed** so that the TSSA inspector can verify the certification of the tank and components, and witness the pressure testing of the piping and the hydrostatic testing of the sumps.
  - The second inspection occurs after the site has been commissioned (i.e. after the asphalt is in place and the site is ready to open for business).
  - TSSA bills the owner/operator of the facility for the inspections.
  - A licensed Petroleum Mechanic 2 (PM2) should be present for the inspection.

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# Recall for OPW 241 TPS & 36S Swivels

- 241 TPS Swivels have leaked & in some cases separated at the joint
- OPW will be initiating a recall for both the 241 TPS & 36S swivels
- Director's Order - all 241 TPS and 36S swivels bearing manufacture dates between January 1, 2013 and March 2017 shall be removed from use.



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# Wiggins & FloMax Nozzles

- FS granted variances to three mines to use the Wiggins ZZ9A1 nozzle & the FloMax nozzle – no ULC approval.
- FS has **rescinded the variance for the Wiggins ZZ9A1 nozzle** because it does not meet electrical conductivity requirement of ULC-S620.



Wiggins ZZ9A1 Refueling Nozzle

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# Brugg Flexwell Piping

- Flexible stainless steel piping
- Certified to UL 971 and ULC S667 for underground piping
- Not certified for aboveground use (yet)
- Cannot be installed at marinas



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Thank you

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