

## PERMIT TO CONSTRUCT

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Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 36, 37

Date: **JULY 06, 2021**

File No: **843.067.5**  
Permit No: **WS11958-2021**

Permit Holder: **Town of Grand Falls - Windsor**  
**5 High Street**  
**Grand Falls - Windsor NL**  
**A2A 2J8**  
**chad.clendenning@townofgfw.com**

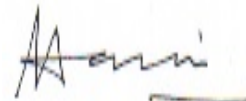
Attention: **Mr. Chad Clendenning**

Re: **Grand Falls-Windsor - UV Disinfection System for Wastewater Treatment Facility**

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Permission is hereby given for : **the construction of a UV disinfection facility for the wastewater treatment plant that includes the installation of five UV banks (four duty/one redundant bank), space in the channel for an additional UV bank when needed, connection of an existing drilled well for non-potable uses, and related works and appurtenances as described in a specification and shown on a set of drawings numbered 680220 (MI no. 17-GI-21-00061) as received from SNC Lavalin Inc. on June 8, 2021 and additional information submitted on July 5, 2021.**

- This Permit does not release the Permit Holder from the obligation to obtain appropriate approvals from other concerned municipal, provincial and federal agencies.
- The Permit Holder must obtain the approval of the Crown Lands Administration Division if the project is being carried out on Crown Land.
- This Permit is subject to the terms and conditions indicated in Appendices A and B (attached).
- It should be noted that prior to any significant changes in the design or installation of the proposed works, or in event of changes in ownership or management of the project, an amendment to this Permit must be obtained from the Department of Environment and Climate Change under Section 49 of the *Water Resources Act*.




(for) MINISTER

**APPENDIX A**  
**Terms and Conditions for Permit**

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**Water & Sewer General**

1. Water pumped from excavations or work areas, or any runoff or effluent directed out of work sites, must have silt and turbidity removed by settling ponds, filtration, or other suitable treatment before discharging to a body of water. Effluent discharged into receiving waters must comply with the *Environmental Control Water and Sewage Regulations, 2003*.
2. All operations must be carried out in a manner that prevents damage to land, vegetation, and watercourses, and which prevents pollution of bodies of water.
3. Any areas adversely affected by this project must be restored to a state that resembles local natural conditions. Further remedial measures to mitigate environmental impacts on water resources can and will be specified, if considered necessary in the opinion of this Department.
4. All waste materials resulting from this project must be disposed of at a site approved by the Department of Digital Government and Service NL.
5. The works proposed must satisfy the requirements of the latest applicable codes and standards, and be consistent with or otherwise address the design criteria set out in this Department's publication *Guidelines for the Design, Construction, and Operation of Water and Sewerage Systems, 2005*, and as amended from time to time.
6. The work must be undertaken in strict compliance with the submitted documents and the latest version of the *Municipal Water, Sewer and Roads Master Construction Specifications*. A copy of all documents, including the *Municipal Water, Sewer and Roads Master Construction Specifications* must be available for viewing at the construction site office at all times.
7. Liaison is to be maintained with the Environmental Scientist representing the Drinking Water and Wastewater Section of this Department, during the construction and operation of the project. They shall be notified of the pre-construction and post-construction meetings so that they may attend, if deemed necessary. They can be reached at telephone (709) 637-2034 .
8. Officials of this Department may visit the project from time to time to ensure that work is carried out within the provisions of this Permit, and is not creating any environmental hazard.
9. Any changes in the approved works, or works other than those specified in the application, must be submitted, in writing, to this Department, and approved, in the form of an Amendment to this Permit, prior to any work.
10. Copies of this Permit, as well as any subsequent Amendments, must be provided to the contractor(s) who will be carrying out these works, and to the engineer's site representative.
11. The attached Completion Report (Appendix C) for Permit No. 11958 must be completed and returned to this Department upon completion of the approved works. Pictures must be submitted along with the completion report, showing the project site prior to and after development.
12. This Permit is valid for two years from the date of issue. Work must be completed by that date or the application and approval procedure must be repeated.

13. The drinking water and wastewater system shall be operated and maintained in accordance with the Permit to Operate issued by this Department.
14. The Owner must update any drawings maintained of the drinking water or wastewater system to reflect the modification or replacement of the works, where applicable.

#### **Water Systems**

15. All new waterlines and appurtenances shall be hydrostatically tested in accordance with the *Municipal Water, Sewer and Roads Specifications*.

#### **Sewer Systems**

16. In the event that private or existing sewer lines are disturbed during construction, the lines are to be restored to their original *working* condition. Care shall be taken to ensure that soil or other material does not enter the lines to cause blockage.
17. All sanitary sewers shall be laid or covered with sufficient depth of suitable material to prevent frost penetration and damage from traffic loading.

#### **Alternative Disinfection**

18. The UV system must be certified and validated for the wastewater being treated under the applicable NSF Standard and/or the USEPA Validation Protocol.
19. The UV system must include a control system that monitors and records flow, UVT, UV intensity or dose and that produces a visual or audible failure alarm when the UV system is not operating as designed.
20. The UV system should have automatic shutdown.
21. UV systems used to disinfect wastewater must be equipped with a meter to monitor transmittance. Flow gates and weirs shall be used to control the water level over the top of the UV lamps.

#### **Wastewater Treatment**

22. Effluent from the wastewater treatment facility must meet the *Environmental Control Water and Sewage Regulations, 2003* and the federal *Wastewater Systems Effluent Regulations, 2012*.
23. The municipal water system and the potable water piping system within any part of the treatment facility, shall be protected from the potential backflow of sewage due to back-siphonage or backpressure with the use of certified backflow prevention devices. In this case, the minimum device(s) to be used on the all buildings service lines shall be a certified reduced pressure zone backflow preventer, meeting or exceeding CSA 64.4. This device must be tested on an annual basis by a certified tester. This device must be tested on an annual basis by a certified tester. For protection of water users within any of the buildings, appropriate backflow preventers shall be attached to any hose bibb connection or water line where there is the possibility of contaminants entering the potable water system due to back-siphonage or backpressure.

#### **Miscellaneous**

24. The Permit Holder must prevent erosion of drainage ditches, streams or other natural bodies of water by installing rip-rap and/or sodding.

#### **Special Conditions**

25. The water system servicing the UV disinfection facility shall be considered a non-potable water system. Signs must be posted at all water taps/dispensing locations that the water is not safe for drinking.

**APPENDIX B**

**Special Terms and Conditions for Permit**

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1. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall keep all systems and works in good condition and repair and in accordance with all laws, by-laws, directions, rules and regulations of any governmental authority. The Permit Holder or its agent(s), subcontractor(s), or consultant(s) shall immediately notify the Minister if any problem arises which may threaten the structural stability of the systems and works, endanger public safety and/or the environment or adversely affect others and/or any body of water either in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for all damages suffered by the Minister and Government resulting from any defect in the systems and works, operational deficiencies/inadequacies, or structural failure.
2. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall operate the said Project and its systems and works in a manner which does not cause any water related and/or environmental problems, including but not limited to problems of erosion, deposition, flooding, and deterioration of water quality and groundwater depletion, in or outside the said Project areas. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) shall be responsible for any and all damages associated with these problems caused as a result of changes, deficiencies, and inadequacies in the operational procedures by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
3. If the Permit Holder or its agent(s), subcontractor(s), or consultant(s) fails to perform, fulfil, or observe any of the terms and conditions, or provisions of this Permit, as determined by this Department, the Minister may, without notice, amend, modify, suspend or cancel this Permit in accordance with the *Water Resources Act*.
4. The Permit Holder and its agent(s), subcontractor(s), and consultant(s) indemnify and hold the Minister and Government harmless against any and all liabilities, losses, claims, demands, damages or expenses including legal expenses of any nature whatsoever whether arising in tort, contract, statute, trust or otherwise resulting directly or indirectly from granting this Permit, systems and works in or outside the said Project areas, or any act or omission of the Permit Holder or its agent(s), subcontractor(s), or consultant(s) in or outside the said Project areas, or arising out of a breach or non-performance of any of the terms and conditions, or provisions of this Permit by the Permit Holder or its agent(s), subcontractor(s), or consultant(s).
5. This Permit is subject to all provisions of the *Water Resources Act* and any regulations in effect either at the date of this Permit or hereafter made pursuant thereto or any other relevant legislation enacted by the Province of Newfoundland and Labrador in the future.
6. This Permit shall be construed and interpreted in accordance with the laws of the Province of Newfoundland and Labrador.

- cc: Mr. Steve Lundrigan, P.Eng.  
SNC - Lavalin Inc.  
1133 Topsail Road  
Mount Pearl, NL, A1N 5G2  
steve.lundrigan@snclavalin.com
- cc: Mr. Wayne Lynch (Central)  
Regional Director (Central)  
Digital Government and Service Newfoundland and Labrador  
P.O. Box 2222  
Gander, NL A1V 2N9  
waynelynch@gov.nl.ca
- cc: Mr. Chris Blanchard, B.Tech.(Env), ASCT  
Environmental Scientist  
Water Resources Management Division  
Department of Environment and Climate Change  
P.O. Box 2006  
Corner Brook, NL A2H 6J8  
cblancha@gov.nl.ca
- cc: Ms. Deneen Spracklin, P.Eng.  
Environmental Engineer, Drinking Water and Wastewater Section  
Water Resources Management Division  
Department of Environment, Climate Change and Municipalities  
P.O. Box 8700  
4th Floor, West Block, Confederation Building  
St. John's, NL A1B 4J6  
dspracklin@gov.nl.ca
- cc: Mr. Wilf Maloney, P. Eng.  
Regional Engineer, Central Regional Office  
Department of Transportation and Infrastructure  
PO Box 2222  
Gander, NL A1V 2N9  
WilfMaloney@gov.nl.ca

### Appendix C - Completion Report

Pursuant to the *Water Resources Act*, SNL 2002 cW-4.01, specifically Section(s) 36, 37

Date: **JULY 06, 2021**

File No: **843.067.5**  
Permit No: **WS11958-2021**

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Attention: **Mr. Chad Clendenning**

Re: **Grand Falls-Windsor - UV Disinfection System for Wastewater Treatment Facility**

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*I (the Permit Holder named above or agent authorized to represent the Permit Holder) do hereby certify that the project described above was completed in accordance with the plans and specifications submitted to the Department of Environment and Climate Change and that the work was carried out in strict compliance with the terms and conditions of the Permit issued for this project.*

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

This completion report must be completed and forwarded to the following address upon completion of the approved work.

Department of Environment and Climate Change  
Water Resources Management Division  
PO Box 8700  
St. John's NL A1B 4J6