

## HOW TO GET A CNG REFUELLING STATION APPROVED

# New Brunswick

### What You Need to Know

So you are interested in switching your fleet to compressed natural gas (CNG)? As you start down this road, you will need to consider the process for approval early on. Whether you decide to work with an experienced engineering firm or you enter into a contract for a turnkey station, there are steps to be aware of in order to get a CNG station approved. At the beginning of the planning process, start by contacting your local natural gas utility to confirm natural gas supply and available pressure.



The CNG Station Approval Checklist on the next page outlines the steps involved in getting a station approved in New Brunswick. The Reference Table on the last two pages provides extra detail on process, review, inspection, and other requirements.



CNG station installation in New Brunswick is regulated by the Department of Justice and Public Safety – Technical Inspection Services and by local municipalities. Technical Inspection Services oversees fuel safety and pressure vessels, while municipalities check for compliance with local by-laws. No federal approval is required, unless you want to allow the general public to refuel at your station. If this is the case, Measurement Canada will need to be involved.



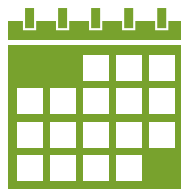
The primary code that applies is CSA 108 – Natural Gas Fueling Stations Installation. This Code applies to public and private CNG stations that offer fast fill capabilities, time fill capabilities, or both.



Public stations can refuel to a settled pressure of 3000 psig. Private stations can refuel to a settled pressure of 3600 psig. Work is underway to allow all Canadian stations to refuel to a settled pressure of 3600 psig.



Knowledgeable design firms, installation firms, and equipment suppliers can help with station options, approvals, and permits.



The total timeline to build a new CNG station will vary, but it is recommended that you plan for a minimum six to nine months based on equipment lead time as well as time for review and approval.

## CNG STATION APPROVAL CHECKLIST

### 1. Provide notice and review process.

#### Gas Utility Level

- Contact your local natural gas utility to confirm natural gas supply and available pressure.

#### Municipal Level

- Meet with local municipal officials to inform them of the proposed project and to review the approval and permitting process.

#### Provincial Level

- Contact the Technical Inspection Services division of the Department of Justice and Public Safety.

### 2. Submit supporting documentation and obtain approvals and permits for construction.

#### Municipal Level

- Refer to the Reference Table on the following page for a comprehensive list of municipal Authorities Having Jurisdiction (AHJ) that may be involved in approving your project.
- Obtain a letter of compliance from the appropriate municipal authority.
- The topics of interest to the local municipality will include some or all of the following:
  - Legal
  - Land use
  - Site services
  - Environmental
  - Other

#### Provincial Level

- It is recommended that this step be completed in parallel with Step 1, as the tasks listed are codependent.
- Refer to the Reference Table on the following page for a comprehensive list of provincial AHJs that may be involved in approving your project.
- Submit an application for a Gas Installation Contractor Licence. Submission requirements for each of these licences can be found in N.B. Reg. 84-176.
- Submit an application for a Class G1 Gas Technician Licence. This is required for anyone doing work on

the facility. Submission requirements for each of these licences can be found in N.B. Reg. 84-176.

- Prepare site plan drawings that identify suppliers, equipment, and details of equipment interconnections. These drawings should include:
  - Site P&ID with all pipe sizes and pressure ratings shown; and
  - Detailed Bills of Materials indicating all component specifications and ratings, provincial CRNs, material specifications and any necessary third-party certification for the equipment (including CNG storage vessels).
- Contact equipment manufacturers (e.g., CNG dryer, CNG compressor package, CNG dispensing equipment, and other pressure retaining equipment) for supporting information, such as:
  - Equipment P&IDs with all pipe sizes and pressure ratings shown; and
  - Detailed Bills of Materials indicating all component specifications and ratings, provincial CRNs, material specifications and any necessary third-party certification for the equipment (including CNG storage vessels).
- N.B. Reg. 84-176 identifies the information and documentation that must be submitted (in triplicate) to Technical Inspection Services before any work can commence. This list includes:
  - Site plans indicating setbacks and separations consistent with CSA B108 and any additional provincial regulations; Narrative describing station sizing, equipment, operating conditions, number and location of cylinders;
  - Site and equipment P&IDs with all pipe sizes and pressure ratings shown;
  - Details of all gas piping, supports, and protection;
  - Detailed Bills of Materials indicating all component specifications and ratings, provincial CRNs, material specifications, and any necessary third-party certification for the equipment;
  - Hazardous locations diagrams;
  - Obtain electrical approval from the appropriate AHJ by submitting the following documentation:
    - Single line electrical schematics;
    - Site inspection report;
  - Contact ACI Central to determine their requirements for approval of any CNG storage vessels. Part VII of N.B. Reg. 84-176 discusses these requirements as well; and
  - Statement that the installation is to be completed by persons holding the gas licences mentioned in Step 2(b).

*NOTE: The following describes the process required by BCSA. Similar processes may be required by the other AHJs listed in the Reference Table.*

### Federal Level

- If you will be offering refuelling capabilities to the general public, you will need to have your dispenser certified by Measurement Canada.

## 3. Construct station and develop a plan for inspections.

- Contact the area inspector prior to construction in order to schedule any interim and final inspections and to identify hold and inspection points. For example, they may require the pressure testing of underground pipe with the trenches open.
- Begin site construction once the station design has been approved.
- Once construction is substantially complete, obtain approval from the necessary AHJs to energize the equipment and introduce gas to the station. You may be required to provide proof of electrical approval and pressure vessel CRNs at this stage.
- Conduct commissioning and invite the appropriate AHJs to attend.

## 4. Obtain operating permit and develop a plan for re-certification.

- Upon successful completion of all final inspections, ensure that all approvals, permits, certificates, and registrations (as applicable) are in order and in place. This will include the following, although others may be required depending on station size and location:
  - Gas Installation Contractor Licence (as mentioned in Step 2(b));
  - Class G1 Gas Technician Licence (as mentioned in Step 2(b), required for anyone installing the facility);
  - NGV Refuelling Plant Licence (required in order to operate the facility); and
  - Gas Service Contractor Licence (required once the facility is operational in order to service the equipment).
- Review and understand the requirements for periodic renewals of the above listed document(s).

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### CNG STATION APPROVAL REFERENCE TABLE

#### How to Use this Reference Table

The information given in this Reference Table is intended to provide extra detail to supplement the checklist on the previous page. Each step on the previous page is further broken down into gas utility, municipal, provincial, and federal level tasks. The relevant Authority Having Jurisdiction (AHJ), guiding document, required documentation, nature of approval, and the documents one receives upon obtaining approval is then provided for each task. Additional approvals beyond those outlined below may be required, depending on the circumstances.

| Item  | Authority  | Guiding Document  | Documents to Submit   | Nature of Approval  | Approval Documents |  |
|---|--|---|---|---|--------------------|--|
| <b>Step 1: Provide notice and review process.</b>   |  |   |   |   |                    |  |
| Natural Gas Utility   |  |   |   |   |                    |  |
| 101   | Contact your local natural gas utility to confirm natural gas supply and available pressure.       | Local natural gas utility   | N/A   | Verbal/e-mail request.  | N/A                | Confirmation of receipt.                                   |
| Municipal Level   |  |   |   |   |                    |  |
| 111   | Inform the AHJ of the proposed project and review the approval and permitting process.             | Local municipal officials   | N/A   | Letter  | N/A                | Confirmation of receipt.                                   |
| Provincial Level  |  |   |   |   |                    |  |
| 121   | Inform the AHJ of the proposed project and review the approval and permitting process.             | Department of Justice and Public Safety – Technical Inspection Services | N/A   | Letter  | N/A                | Confirmation of receipt.                                   |
| Federal Level   |  |   |   |   |                    |  |
| 131   | N/A  |   |   |   |                    |  |
| <b>Step 2: Submit supporting documentation and obtain approvals and permits for construction.</b> |  |   |   |   |                    |  |
| Municipal Level   |  |   |   |   |                    |  |
| 211   | Obtain a letter of compliance from the appropriate AHJ for submission to the Department of Justice | Local municipal officials   | Documents pertaining to the following topics: legal and land use. | As required by the Department of Justice and Public Safety – Technical Inspection Services. | By-law review.     | Letter signed by the Chief Building Official or designate. |

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|-----|---|---------------------------|--|----------------------------------|--------------------|---|
|     | and Public Safety – Technical Inspection Services.  |                           |  |                                  |                    |   |
| 212 | Compile legal information, which may include none to all of the following: surveys, easements, and rights of way.   | Local municipal officials | Any pertinent legal documents.         | As required by the municipality. | By-law review.     | Building permits and others, as required by the municipality. |
| 213 | Compile land use information, which may include none to all of the following: official plan, zoning by-laws (i.e., rezoning or minor variance applications), site plan control, building permits, and sign permits. | Local municipal officials | Any pertinent land use documents.      | As required by the municipality. | By-law review.     | Building permits and others, as required by the municipality. |
| 214 | Compile site services information, which may include none to all of the following: water, storm water, sanitary sewer, and electrical services.   | Local municipal officials | Any pertinent site services documents. | As required by the municipality. | By-law review.     | Building permits and others, as required by the municipality. |
| 215 | Compile environmental information, which may include none to all of the following: conservation authority, natural environment designation, site assessment (Phase I, Phase II), and agricultural MDS.              | Local municipal officials | Any pertinent environmental documents. | As required by the municipality. | By-law review.     | Building permits and others, as required by the municipality. |

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|                         | Item  | Authority   | Guiding Document  | Documents to Submit  | Nature of Approval                      | Approval Documents  |
|-------------------------|---|---|---|--|---|---|
| 216                     | Compile any other necessary information, which may include none to all of the following: Ontario Heritage designation, local cultural designation, archaeological site designation, railway rights of way, First Nations consultation, and mining claims. | Local municipal officials   | Any pertinent documents.                                  | As required by the municipality.   | By-law review.                          | Building permits and others, as required by the municipality. |
| <b>Provincial Level</b> |   |   |   |  |   |   |
| 221                     | Gas Installation Contractor Certification.  | Department of Justice and Public Safety – Technical Inspection Services | Primary regulatory instruments include: N.B. Reg. 84-176. | Application form, and proof that the work is to be carried out by someone who is appropriately qualified, as per N.B. Reg. 84-176.   | Document review by the Chief Inspector. | Gas Business Licence – Gas Installation Contractor.           |
| 222                     | Gas Technician Certification.   | Department of Justice and Public Safety – Technical Inspection Services | Primary regulatory instruments include: N.B. Reg. 84-176. | Application form provided by the Gas Board, proof of sufficient number of hours of technical training and field experience (as per N.B. Reg. 84-176), and proof that a training program and examination deemed acceptable by the Gas Board has been completed. | Document review by the Gas Board.       | Gas Business Licence – Class G1.                              |

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| Item |   | Authority   | Guiding Document   | Documents to Submit   | Nature of Approval                                | Approval Documents      |
|------|---|---|--|---|---|-------------------------|
| 223  | Prepare site plan drawings that identify suppliers, equipment, and details of equipment interconnections. | Department of Justice and Public Safety – Technical Inspection Services | Primary regulatory instruments include N.B. Reg. 84-176. Applicable codes include: CSA B108, CSA B51, and CSA B149.  | P&IDs and detailed Bills of Materials for the overall site that have been stamped by a P. Eng. (including CRNs as applicable, ratings, and material specifications), site plan drawings indicating setbacks, a narrative describing station sizing, equipment selection, operating conditions, piping layout, piping support details, and hazardous locations diagrams. | Document review by Technical Inspection Services. | Plan review document.   |
| 224  | Acquire detailed drawings for major pieces of equipment from manufacturers.                               | Department of Justice and Public Safety – Technical Inspection Services | Primary regulatory instruments include: N.B. Reg. 84-176. Applicable codes include: CSA B108, CSA B51, and CSA B149. | P&IDs and detailed Bills of Materials for each major piece of equipment (including CRNs as applicable, ratings, and material specifications for individual components). These must be submitted as part of the overall site approval, per the above.  | Part of 223 item above.                           | Part of item 223 above. |
| 225  | As per the requirements laid out by the Department of Justice and Public Safety – Technical Inspection    | Department of Justice and Public Safety – Technical Inspection Services | Applicable codes include: Canadian Electrical Code (CSA C22.1).  | Single line schematics and a site inspection report.  | Document review.                                  | Letter of compliance.   |

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|  | Item  | Authority   | Guiding Document   | Documents to Submit   | Nature of Approval | Approval Documents                               |
|--|---|---|--|---|--------------------|--|
|  | Services, obtain electrical approval of the proposed design.  | (Electrical Inspections Unit)   |  |   |                    |  |
| <b>Federal Level</b>   |   |   |  |   |                    |  |
| 231  | Dispenser must be certified if fuel retailing will be offered.  | Measurement Canada  | C.R.C., c.1605.  | None at this time. However, a dispenser capable of meeting Measurement Canada requirements must be specified. | N/A                | N/A  |
| <b>Step 3: Construct station and develop plan for inspections.</b> |   |   |  |   |                    |  |
| <b>Municipal Level</b>   |   |   |  |   |                    |  |
| 311  | Arrange for any interim and final building and site inspections that might be required.                   | Local municipal officials/utilities   | As required by the municipality.   | As required by the municipality.  | Field inspection.  | Interim and final inspection reports/ approvals. |
| <b>Provincial Level</b>  |   |   |  |   |                    |  |
| 321  | Conduct interim inspections and obtain approval to energize equipment and to introduce gas to the system. | Department of Justice and Public Safety – Technical Inspection Services                               | Approval letter obtained in Step 2.  | Field test report(s).   | Field inspection.  | Verbal approval.                                 |
| 322  | Obtain electrical approval of the facility.   | Department of Justice and Public Safety – Technical Inspection Services (Electrical Inspections Unit) | Applicable codes include: Canadian Electrical Code (CSA C22.1).  | N/A   | Field inspection.  | Certification sticker/ letter.                   |
| 323  | Conduct final inspection.   | Department of Justice and Public Safety – Technical Inspection Services                               | Primary regulatory instruments include: N.B. Reg. 84-176. Applicable codes include: CSA B108, CSA B51, and CSA B149. | N/A   | Field inspection.  | Letter of approval.                              |



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|--|---|---|--|--|---|--|
| <b>Federal Level</b>   |   |   |  |  |   |  |
| 331  | Have dispenser certified if fuel retailing will be offered. | Measurement Canada  | C.R.C., c.1605.  | Verbal/e-mail request.   | Field inspection.                       | Certification sticker applied to dispenser.    |
| <b>Step 4: Obtain and maintain operating permits and licences.</b> |   |   |  |  |   |  |
| <b>Municipal Level</b>   |   |   |  |  |   |  |
| 411  | Final approval if building permit was required.             | Local municipal officials   | Building permit.   | As required by building permit.  | Field inspection.                       | Occupancy permit.                              |
| <b>Provincial Level</b>  |   |   |  |  |   |  |
| 421  | Gas Service Contractor Certification.                       | Department of Justice and Public Safety – Technical Inspection Services | Primary regulatory instruments include: N.B. Reg. 84-176.  | Application form, and proof that the work is to be carried out by someone who is appropriately qualified, as per N.B. Reg. 84-176. | Document review by the Chief Inspector. | Gas Business Licence – Gas Service Contractor. |
| 422  | Obtain a Licence to Operate the facility.                   | Department of Justice and Public Safety – Technical Inspection Services | Primary regulatory instruments include: N.B. Reg. 84-176. Applicable codes include: CSA B108, CSA B51, and CSA B149. | Application form, and proof that the work is to be carried out by someone who is appropriately qualified, as per N.B. Reg. 84-176. | Document review by the Chief Inspector. | Gas Business Licence – NGV Refueling Plant.    |
| <b>Federal Level</b>   |   |   |  |  |   |  |
| 431  | N/A   |   |  |  |   |  |

### **NOTES:**

1. Depending on the type of business, additional licences may be required.
2. Additional approvals and assessments may also be required. For example, these might include a Noise Screening Assessment and/or a Pre-Start Health and Safety Review (PSR). It is recommended that you identify these additional requirements during your initial conversation with Technical Inspection Services division of the Department of Justice and Public Safety, and your local municipal officials.