

# Construction and Permanent Employment Projections Growth in Ontario

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*Disclaimer: The information provided in this document is intended for information and planning purposes only and is subject to change without notice.*

## Construction Opportunities

Anticipated 2018 to 2021

Construction Management
These positions are contracted through <a href="#">Brunel Global Services</a> . Please visit their website to learn more about specific opportunities.
Document Controllers
Construction Coordinators
Quality Inspectors
Cost Controllers
Occupational Health and Safety Advisors
Responsible Care™ Coordinators

Construction Labour		
These positions are contracted through local labour union halls. Please visit the website of the trade of your choice. You may also visit the <a href="#">Sarnia Construction Association</a> website for more information on construction employment in the Sarnia-Lambton region.		
<a href="#">Boilermakers</a>	<a href="#">Boilermaker Welders</a>	<a href="#">Painters</a>
<a href="#">Bricklayers</a>	<a href="#">Carpenters</a>	<a href="#">Pipefitters</a>
<a href="#">Cement Masons</a>	<a href="#">Pipewelders</a>	<a href="#">Rodmen</a>
<a href="#">Electricians</a>	<a href="#">Insulators</a>	<a href="#">Roofers</a>
<a href="#">Ironworkers</a>	<a href="#">Labourers</a>	<a href="#">Sheet Metal Workers</a>
<a href="#">Millwrights</a>	<a href="#">Operator Engineers</a>	

## Permanent Opportunities

Anticipated 2021 and beyond

Position Title	Minimum Qualifications	Sample of Institutions (not an exhaustive list)	Education Program Title
<a href="#">Material Flow Technician</a>	<ul style="list-style-type: none"> <li>Grade 12</li> <li>4-5 years related experience</li> </ul>	High School	
<a href="#">Warehouse Attendant</a> (Supply Cycle Technician)	<ul style="list-style-type: none"> <li>Grade 12</li> <li>4-5 years related experience</li> </ul>	High School	
<a href="#">Administrative Assistant</a>	<ul style="list-style-type: none"> <li>Grade 12</li> <li>4-5 years combination of applicable post-secondary education and related experience</li> </ul>	Lambton College	Office Administration
<a href="#">Document Control</a> <a href="#">Administrative Assistant</a>	<ul style="list-style-type: none"> <li>Grade 12</li> <li>4-5 years combination of applicable post-secondary education and related experience</li> </ul>	Lambton College	Office Administration Records Management
<a href="#">Process Operator</a>	<ul style="list-style-type: none"> <li>College diploma</li> <li>TSSA ticketed operators Class 4, Class 3 &amp; Class 2</li> </ul>	Lambton College	Chemical Production Engineering Technology (CPET)
<a href="#">Maintenance Technician</a>	<ul style="list-style-type: none"> <li>College diploma</li> </ul>	Lambton College	Instrumentation & Control Engineering Technologist (ICET) Mechanical Technician Industrial Maintenance (MTIM)
<a href="#">Instrument/Mechanical Design</a>	<ul style="list-style-type: none"> <li>College diploma</li> <li>Eligible for C.E.T. (Certified Engineering Technologist) certification from OACETT</li> </ul>	Lambton College Mohawk College Niagara College Sheridan College	Instrument/Electrical Technologist Mechanical Technologist

<a href="#">Quality Control Technician (Laboratory Technician)</a>	<ul style="list-style-type: none"> <li>College diploma</li> </ul>	Lambton College Fanshawe College Mohawk College Seneca College	Chemical Technologist Chemical Laboratory Technology Environmental Technology
<a href="#">Emergency Response &amp; Safety</a>	<ul style="list-style-type: none"> <li>College diploma</li> <li>Certified Protection Professional (CPP)</li> <li>Certified Registered Safety Professional (CRSP)</li> </ul>	Lambton College	Health and Safety Fire Science Technology
<a href="#">Inspection</a>	<ul style="list-style-type: none"> <li>College diploma</li> <li>Certification in API 510, 570 &amp; 653</li> </ul>	Mohawk College Niagara College Sheridan College	Mechanical Engineering Technology
<a href="#">Supply Chain Logistics</a>	<ul style="list-style-type: none"> <li>University degree or college diploma</li> <li>Industry designation (CITT, CSCP, CLTD, CPIM, CCLP)</li> </ul>	Western University University of Windsor Wilfred Laurier University Lambton College Fanshawe College	Business Administration Logistics and Supply Chain Management Supply Chain Management
<a href="#">Responsible Care Specialist</a>	<ul style="list-style-type: none"> <li>University degree or college diploma</li> <li>Certification in Occupational Health and Safety (i.e. Canadian Registered Safety Professional - CRSP) or equivalent</li> </ul>	Western University Lambton College	Bachelor's Degree in Natural or Applied Science Technical diploma in a related field
<a href="#">Reliability Specialist</a>	<ul style="list-style-type: none"> <li>University degree or college diploma</li> <li>Eligible for PEng (Professional Engineer) certification from PEO or C.E.T. (Certified Engineering Technologist) certification from OACETT</li> </ul>	Western University University of Waterloo Lambton College Mohawk College	Bachelors of Engineering - Mechanical or Electrical Mechanical Technologist Electrical Technologist Instrumentation Technologist
<a href="#">Project Manager</a>	<ul style="list-style-type: none"> <li>University degree or college diploma</li> <li>Eligible for PEng (Professional Engineer) certification from PEO or C.E.T. (Certified Engineering Technologist) certification from OACETT</li> <li>PMP designation would be an asset</li> </ul>	Western University University of Waterloo Lambton College Mohawk College	Bachelors of Engineering Mechanical Technologist Electrical Technologist

<a href="#">Process Control PLC Technologist or Engineer</a>	<ul style="list-style-type: none"> <li>University degree or college diploma</li> <li>Eligible for PEng (Professional Engineer) certification from PEO or C.E.T. (Certified Engineering Technologist) certification from OACETT</li> </ul>	Western University University of Waterloo University of Windsor Queen's University McMaster University Lambton College	Instrumentation & Control Engineering Technologist (ICET) Bachelors of Engineering - Electrical
<a href="#">Process Control Engineer</a>	<ul style="list-style-type: none"> <li>University degree</li> <li>Eligible for PEng (Professional Engineer) certification from PEO</li> </ul>	Western University University of Waterloo Queen's University McMaster University	Bachelors of Engineering - Chemical
<a href="#">Process Engineer</a>	<ul style="list-style-type: none"> <li>University degree</li> <li>Eligible for PEng (Professional Engineer) certification from PEO</li> </ul>	Western University University of Waterloo	Bachelors of Engineering - Chemical
<a href="#">Mechanical Engineer</a>	<ul style="list-style-type: none"> <li>University degree</li> <li>Eligible for PEng (Professional Engineer) certification from PEO</li> </ul>	Western University University of Waterloo	Bachelors of Engineering - Mechanical
<a href="#">Accounting</a>	<ul style="list-style-type: none"> <li>University degree</li> <li>Eligible for professional accounting designation</li> </ul>	Various	Bachelors of Business Administration - Accounting Bachelors of Finance
<a href="#">Human Resources</a>	<ul style="list-style-type: none"> <li>University degree</li> <li>CHRP designation from HRPA would be an asset</li> </ul>	Various	Bachelors of Commerce Bachelors of Human Resource Management
<a href="#">Purchasing</a>	<ul style="list-style-type: none"> <li>University degree</li> <li>Eligible for Professional Purchasing Designation</li> </ul>	Various	Bachelor's degree in Business or related discipline

## Co-op Opportunities

Information about co-op opportunities for post-secondary students can be found on our [careers website](#).

Students apply by following the application process outlined by their institution, and this includes a cover letter, resume and transcript with the application.

For more information on working at NOVA Chemicals, please visit our [careers website](#).

## Permanent Opportunities – Position Summaries

### Material Flow Technician

- Washes, loads and unloads hopper cars
- Loads bulk trucks
- Operates and troubleshoots blenders, rail barn, wash barn, unload system and auxiliary equipment
- Provides field support for blenders
- Initiates composite sample and metal detection collection and retention for technical analysis
- Responsible for area dust collector management, which includes emptying containers and waste inventory management
- Acts as the quality contact, to ensure no cross contamination between resins and equipment
- Confirms resin transfer destination within area
- Operates locomotives (as required) and shuttles rail cars on site

### Warehouse Attendant (Supply Cycle Technician)

- Responsible for the day to day operations of warehouse shipping and receiving
- Delivers material to specific locations per committed delivery schedule
- Updates records daily to track deliveries
- Responds to rush requests
- Supports receiving/issuing/staging materials in laydown locations

### Administrative Assistant

- Supports a team and/or a leader within a function or department
- Applies and helps others to apply Responsible Care and procedures applicable to their area of work
- Provides input for administrative system improvements
- Orders, receives, and maintains office and applicable operating supplies using established procurement processes
- Schedules area work activities.
- Carries out meeting scheduling/preparation/support and makes logistical arrangements
- Assists others, if required, to make cost effective travel arrangements within established guidelines

- Creates and formats reports and correspondence to meet defined business needs
- Maintains online and hardcopy records and libraries of information as per established procedures
- Accesses, maintains, operates and troubleshoots systems to support departmental processes (e.g. SAP, Web, LAN, manuals, software packages); trains others in their operation
- Assists team with budget preparation and may report own cost center spending against plan

#### **Document Control Administrative Assistant**

- Records, tracks and issues construction work packages
- Creates/modifies equipment files (in SmartPlant Foundation (SPF) and engineering library)
- Reviews and approves documents submitted to the SPF workflows
- Audits projects to verify that engineering data turnover is complete and works with project teams to resolve deficiencies
- Performs QA/QC audits to support Engineering Information management workflows
- Monitors Doc Control mailbox and resolves/implements users requests, including specialized historical searches
- Documents closed projects and sends to offsite storage; retrieves documents from offsite storage based on users requests
- Tracks “issued for approval” (IFA) documentation at closure of project
- Files and distributes drawings updates (NOVA drawings, piping isometrics, vendors drawings)

#### **Process Operator**

- Responsible for the safe, efficient and reliable operation of the process equipment
- Prepares equipment for maintenance and safe work permitting
- Ensures NOVA Chemical's safe work practices and policies are maintained at all times
- Completes area safety checks, and responds to hazards in own area
- Conducts preventative maintenance of equipment (i.e.: rounds and checks, swing pumps)
- Monitors, reports, and initiates corrective actions for plant operation in assigned area
- Implements changes to operating parameters to optimize unit performance
- Maintains housekeeping standards within the Operating unit
- Continually progresses through the outside operating areas culminating in the operation of a complex DCS panel
- Participates in team safety meetings, safety audits and follow-ups
- Participates in procedure reviews
- Supports and participates with the Emergency Response Team (ERT)
- The technician is expected to advance to the top of the progression program as outlined in Operations progression requirements, including the attainment of required certifications

#### **Maintenance Technician**

- Installs, maintains, repairs and troubleshoots stationary mechanical equipment and industrial machinery
- Executes maintenance job tasks in a safe, professional manner
- Reads diagrams and schematic drawings and service manuals to determine work procedures
- Operates rigging equipment and dollies to place heavy machinery and parts
- Fits bearings, aligns gears and shafts, attaches motors, and connects couplings and belts (often to within a fraction of a millimeter tolerance)
- Aligns and tests equipment, and makes any necessary adjustments (i.e. pump alignment)
- Performs predictive and operational maintenance using procedures such as vibration analysis, and repairs or replaces defective parts when necessary
- Services and repairs hydraulic, pneumatic systems and controls
- Updates and maintains equipment history
- Maintains inventory of replacement parts and critical spares
- Exercises troubleshooting and problem solving techniques using appropriate operating and technical inputs
- Networks with support services
- Contributes to the success of the Maintenance Services team by supporting the World Class Reliability Program (WCR) and the Maintenance Work Management System (MWM)
- Attends and facilitates meetings, schedules and appointments as required
- Shares achievements and business results

#### **Instrument Design**

- Responsible of instrumentation and electrical design of capital and expense projects
- P&D development (including loop, elementary and interconnect drawings)
- Prepares specification of instrument/electrical equipment and selects hardware and control systems
- Prepares engineering packages for construction (scope of work, detailed drawings, cost estimates), with commitment to data integrity
- Interfaces with technicians, engineers, specialists and operations personnel

#### **Mechanical Design**

- Responsible for plant technical support and capital project development and implementation
- Plays a key role in pressure piping system design, and the specification and selection of process mechanical equipment
- Responsible for Process Piping & Mechanical design of capital and expense projects
- Develops specifications of mechanical equipment and selecta hardware
- Prepares engineering work packages for construction (scope of work, detailed drawings, estimates)
- Maintains engineering design data and drawings as required to maintain integrity of engineering systems records
- Interfaces with engineering alliance partner and consultants
- Provides technical support and troubleshooting to plant operations as it relates to the mechanical discipline

#### **Quality Control Technician (Laboratory Technician)**

- Participates as an Emergency Response Team member
- Adheres to safety, health and environment standards in the laboratory and onsite
- Performs routine and non-routine testing for in-process and finished product on specification and non-specification related properties

- Performs chemical analysis of process samples using gas chromatographs, auto titrators and other wet chemistry methods
- Validates testing equipment daily
- Makes real-time decisions regarding product disposition (e.g. product grading, blending consultations)
- Produces certified test results for product shipment release
- Enters test result data in SAP and maintains an effective log
- Maintains and troubleshoots laboratory equipment and test method problems
- Assists in the commissioning of new equipment and related testing and documentation
- Generates and analyzes statistical data to maintain quality control of existing equipment and testing procedures
- Takes initiative to troubleshoot and address problem areas with equipment/procedures
- Maintains conformance to the ISO 9001-2000 standard
- Completes and maintains lab and Responsible Care training requirements

### **Emergency Response & Safety**

- Responsible for the effective application of the occupational safety and emergency preparedness and response programs
- Plays a key part in maintaining regulatory compliance and participates in all internal and external audit.
- Develops and administers comprehensive and effective occupational safety and emergency response plans, procedures, programs and measurements
- Provides clarification on Regulatory and Company procedures and policy requirements as well as ensures Regulatory reporting and Compliance monitoring
- Develops and delivers communications to educate/guide internal stakeholders on the application of Responsible Care (RC) programs
- Develops and delivers appropriate RC training programs
- Leads incident investigations, audits, inspections and gap analyses and recommends and implements actions to address findings
- Develops tactical plans to resolve routine and non-routine issues and concerns
- Works closely with all members of NOVA Chemicals leadership, employees and contractors as well as represents Responsible Care by actively participating with internal and external networks and organizations
- Participants in the regional Emergency Response Team

### **Inspection**

- Responsible for the continued integrity of process/mechanical equipment
- Manages unit inspection compliance
- Manages inspection records in the corporate database
- Completes regular inspections in the field
- Reports inspection findings and works with technical staff to develop recommendations
- Administers company Owner-User Programs
- Defines required inspections and generates inspections scopes for regular maintenance, outages and turnarounds
- Participates as a member of the inspection team during turnarounds
- Co-coordinates the work of NDE service providers

### **Supply Chain Logistics**

- Monitors customer sales orders and responds to order process requirements



- Allocates prime finished goods inventory to best meet customer order requirements
- Coordinates customer order interventions with the Customer Service Team
- Manages offsite inventory supply distribution requirements and planning
- Implements corrective actions to minimize obsolete, surplus, and aged inventories
- Coordinates physical inventory counts and audits to comply with financial reporting requirements
- Responds to and approves inquiries regarding inventory supply, abnormal movements, and customer inventory returns
- Investigates and helps explore resolution for Supply Chain service level customer complaints
- Interacts with other areas of the business including Customer Service, Operations (production, packaging and loading), Logistics, and others
- Maintains data, conducts analysis, and reports to key stakeholders regarding S&OP's KPI's
- Responsible for managing site railcar fleet and associated inventory
- Responsible for entry of inventory movements in SAP

### **Responsible Care Specialist**

- Provides leadership, facilitation and technical and general resource support for company-wide Responsible Care (RC) initiatives and programs
- Leads and continuously improves standards/procedures development and reviews process and actively facilitates its application
- Identifies opportunities and delivers improvements to enhance the consistency and completeness of our Responsible Care Management System
- Provides support for local Responsible Care programs and activities
- Coordinates and participates in the testing and development of system enhancements to ensure business requirements are met
- Leads and continuously improves our risk-based prioritization process for developing standards and corporate procedures

### **Reliability Specialist**

- Leads the development and implementation of Reliability Systems to achieve and sustain leading performance in plant availability and maintenance costs
- Leads the design and implementation of regional and Corporate Reliability Standards, Procedures, Processes & Tools
- Leads and mentors the regional Reliability Teams, Operations and Maintenance in the application and use of Reliability Systems
- Leads and facilitates a consistent Opportunity Selection Process to identify and approve reliability projects within each plant equipment discipline: rotating, static, electrical and instrumentation
- Leads and mentors others in the use of a regional Reliability Project Portfolio to define, measure, analyze, improve and control each approved reliability project
- Monitors, tracks and communicates the project status and recommendations within the regional Reliability Project Portfolio
- Leads and mentors others in the use of analytical tools such as; RAM Modeling, RCFA, FMEA, Weibull analysis, Spares Analysis, etc.
- Ensures alignment of our Reliability Systems to related business processes
- Integrates Lean Sigma reporting to the regional Reliability Project Portfolio
- Understands and acts in response to our internal and external benchmarking

### **Project Manager**

- Leads multi-discipline teams to complete Engineering and Construction activities to meet project objectives
- Works closely with technical manufacturing staff, engineering firms, specialty consultants, vendors and construction contractors
- Provides project management that encompasses the entire project lifecycle to ensure quality engineering, schedule and cost efficiency
- Ensures compliance with all Responsible Care and management of change policies and procedures

- Ensures adherence to NOVA's Project Development and Implementation process
- Implements effective project management practices and tools throughout the project investigation and implementation
- Ensures continual communication with the project champions and decision boards
- Ensures all project documentation is completed and communicated
- Clearly communicates task assignments and performance expectations to team members and conducts regular project team meetings

#### **Process Control PLC Technologist or Engineer**

- Ensure reliable operation of the process automation systems and the operating plant.
- Participates in projects and ongoing support activities
- Participates as an active team member for new equipment projects, implementing logic changes, and upgrading plant process control equipment (example PLC's)
- Works closely with Process Control, Maintenance and Operations personnel in commissioning and ongoing support activities
- Participates in validating, creating, and implementing automation equipment PM plans
- Works with a variety of automation systems and software platforms

#### **Process Control Engineer**

- Monitors plant control system performance and develops automation strategies for plant optimization
- Designs and tunes control loops, building steady state process models for optimization, evaluates new opportunities for advanced control, develops new multivariable control applications, and enhances existing applications
- Ensures reliable operation of the process automation systems and the operating plant
- Participates in capital projects and ongoing support activities such as control loop tuning, control scheme improvement and alarm management activities
- Participates as an active team member for new equipment projects, implementing control logic changes, and upgrading plant process control equipment (example DCS I/O)
- Works closely with Process Control, Maintenance and Operations personnel in commissioning and ongoing support activities.
- Works with a variety of automation systems and software platforms in the course of this work

#### **Process Engineer**

- Monitors the unit processes and interfaces with other disciplines (Operations, Maintenance, etc.) to proactively identify equipment performance problems
- Determines root causes via data analysis, sound engineering principles, field inspections / testing, etc.
- Implements solutions within a multi-disciplinary team to permanently address these problems
- Identifies and evaluates improvement opportunities
- Participates in the development and tracking of Key Performance Indicators
- Drives / facilitates actions to improve plant performance in the areas of Responsible Care, cost, reliability, and capacity
- Runs tests in the plant to improve plant performance
- Reviews and provides input on plant processes and procedures
- Participates in the identification, planning and execution of major unit turnaround work

## Mechanical Engineer

- Provides mechanical engineering support to the capital projects within the Engineering and Capital Department or for rotating equipment within the Maintenance and Reliability department
- Engineering & Capital:
  - Participates as a member of a multi-discipline team and provides collaborative engineering support to the projects in a portfolio as well as provides plant support for maintenance
  - Ensures that capital and expense projects comply with company Responsible Care and Loss Prevention Standards, as well as applicable regulatory and other design codes ( ASME, TSSA, etc.)
  - Provides mechanical design support and / or deliverables for assigned projects
  - Works closely with process engineering on new projects through process development and implementation processes
  - Facilitates, supports and reviews scope changes or as-builds throughout the project, and oversees equipment and piping infrastructure through fabrication and construction
  - Translates design requirements into engineering specifications for associated mechanical equipment
  - Provides support to Business Case definition
  - Provides engineering design and analysis support, including mechanical field recommendations and reports to the Maintenance and Reliability department as required
  - Develops an understanding of key business drivers for the operating unit
  - Liaises with EPC firm during execution of projects
  - Provides Pressure containment, LOPC and general mechanical site support for all main groups including Process-Operations, Reliability, Environmental and Safety
- Maintenance & Reliability:
  - Leads and manages Reliability Projects, establishes and tracks mechanical equipment priorities with key stakeholders (Maintenance, Operations, and Plant Engineering)
  - Leads & participates in the use of NOVA Reliability Systems Standards & Analytical Tools to ensure optimal reliability methods are applied; such as FMEA, RCFA, etc.
  - Develops equipment strategies and ensure these are implemented into our Computerized Maintenance Management System (SAP)
  - Reviews new equipment designs to ensure maintenance and reliability issues are evaluated and addressed
  - Leads & supports focus teams on equipment failures to determine root causes and identifies actions to prevent re-occurrence
  - Responsible to Plant Work Teams, Operations and Maintenance for critical mechanical issues, including equipment specification & changes and troubleshooting, plant trips, & capacity limitations
  - Familiar with condition monitoring tools and techniques such as vibration analysis, lube oil analysis, etc.

## Accounting

- Calculates and inputs monthly journal entries into SAP
- Completes monthly account reconciliations and inputs them into software tool
- Enters, reviews, and analyzes production orders and associated variances
- Provides accounting support (monthly journal entries, purchase order reconciliation, month end inventory reconciliation, etc.)
- Coordinates and reviews month end raw material inventories and associated variances
- Interacts with internal and external auditors/contacts to provide information and resolve issues as required
- Enters and supports budget and forecast activities
- Provides reports, analysis and assistance in applying accounting principles to support leadership decision-making
- Carries out varied assignments of moderate complexity involving application of IFRS/financial principles and internal policies and guidelines
- Identifies and acts on opportunities to improve the efficiency of systems or work methods
- Develops, maintains and improves models for complex accounting/financial issues with minimal assistance

- Reviews and analyzes financial information for data integrity
- Recognizes trends and patterns in financial information and takes action to address issues within clearly defined guidelines
- Acts as a technical resource within own area of specialization, provides coaching and guidance to others and participates in special projects/studies
- Prepares regulatory reports and submissions with minimal assistance

#### **Human Resources Business Partner**

- Delivers human resource services and solutions to leadership, employees and teams at NOVA
- Establishes and develops ongoing partnerships with business leaders to assist in the delivery of strategic business priorities
- Coaches leaders on best-practice application and integration of HR processes and programs to enhance business performance
- Supports business leadership through the delivery of key HR processes such as strategic workforce planning, succession and resource planning, performance management, and business priority setting
- Works with leaders to identify and act on specific opportunities to enhance team and organizational effectiveness
- Partners with leaders in the design and delivery of appropriate interventions to advance desired changes throughout the organization and/or align culture with company vision
- Works collaboratively with leadership and Occupational Health on complex disability management cases
- Provides a reliable and predictable client experience across the organization through consistent application and alignment of HR policies, programs and practices
- Participates on and/or leads HR project initiatives that support NOVA Chemicals' strategic direction and organizational priorities
- Researches HR-related issues and participates in the development, revision, and implementation of HR policies and guidelines
- Independently carries out assigned tasks in support of process and program improvement projects
- Identifies key metrics for monitoring and trend analysis
- Understands applicable government legislation in regions of operation and ensures HR policies and programs are aligned

#### **Purchasing**

- Processes purchase requisitions to purchase orders within established guidelines and expediting orders to ensure on-time delivery
- Communicates delivery date information to internal client groups (e.g. Engineering, Maintenance, Operations) to avoid schedule disruptions
- Facilitates the supplier management process by managing purchase order dates to facilitate on-time delivery
- Determines appropriate sourcing and pricing of materials and services
- Records material source and information within the system to streamline future purchases
- Manages blocked invoices relating to purchase order discrepancies for price and quantity
- Follows-up on non-conformance of materials and deliveries with end user and/or vendor; identifies trends or patterns
- Identifies supplier issues and opportunities to Senior Buyers
- Participates in the implementation of process improvement plans
- Applies NOVA and Procurement standards, policies, processes, procedures and methodology