

Construction and Permanent Employment Projections Growth in Ontario

Last Updated: January 25, 2022

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 2022

Construction Management
These positions are contracted through Brunel Global Services . 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 Sarnia Construction Association website for more information on construction employment in the Sarnia-Lambton region.		
Boilermakers	Boilermaker Welders	Painters
Bricklayers	Carpenters	Pipefitters
Cement Masons	Pipewelders	Rodmen
Electricians	Insulators	Roofers
Ironworkers	Labourers	Sheet Metal Workers
Millwrights	Operating Engineers	

Permanent Opportunities

Anticipated 2022 and beyond

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

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

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