

WORKING AT ONTARIO POWER GENERATION AS AN

# ENGINEERING/ APPLIED SCIENCE TRAINEE

A REALISTIC JOB PREVIEW

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## BECOMING AN ENGINEERING/APPLIED SCIENCE TRAINEE

Dear Applicant

Thank you for your interest in applying to the Engineering/Applied Science Trainee position, Nuclear Business Unit. It is important for us, at Ontario Power Generation (OPG), to provide you with a complete description of what you can realistically expect to experience as an Engineering/Applied Science trainee. This document will provide you with a detailed and realistic preview of the job - a **Realistic Job Preview (RJP)**. The role of the Engineering/Applied Science trainee carries with it rewards and challenges unique to this position. In this document you will find **up-to-date** and balanced job information that pertains to **all aspects of the Engineering/Applied Science Trainee job**, including both potentially **positive** and **negative** aspects (i.e., the rewards and challenges). Our goals in providing you with an **RJP** are the following:

- **To achieve a better fit between the applicant and the job** - You can review information in this document to determine whether you are willing and/or able to cope with the job's demands and whether you will find this job satisfying. We hope that information in this document will help you make an informed decision about whether this job is right for you.
- **To ensure applicants hold realistic expectations of the job** - Our intent is that information about the job will help you form accurate expectations of the job. We anticipate that such an understanding will foster a mutually satisfying working relationship.

We emphasize the need for you to read this document carefully and to consider the entire job of an **Engineering/Applied Science staff member/trainee** before applying.

## CONTENTS OF THIS REALISTIC JOB PREVIEW

All information contained in this document is based on a detailed analysis of the job and has been collected directly from new and experienced individuals who are currently working as Engineering/Applied Science personnel. This RJP includes the following:

1. **OVERVIEW OF THE HIRING PROCESS** – describes the eligibility criteria and the steps in the selection process.
2. **LIFE AS A NEW ENGINEERING/APPLIED SCIENCE TRAINEE** – describes information important to being a new Engineer/Applied Science trainee (i.e., Engineering Divisions, the Graduate Training Program, and probationary period).
3. **OVERVIEW OF THE ENGINEERING/APPLIED SCIENCE JOB** – provides a description of the job duties, level of responsibility, amount of work, and other job characteristics.
4. **CONTINUING TRAINING REQUIREMENTS AND CAREER OPPORTUNITIES** – provides an overview of the on-going certification requirements, and professional growth and advancement opportunities available within OPG.
5. **PAY, BENEFITS AND REWARDS** – describes how and when pay increments and promotions are decided, and the quality of pay and benefits.
6. **REWARD AND CHALLENGES OF BEING AN ENGINEERING/APPLIED SCIENCE STAFF MEMBER** – describes the positive and negative aspects of the job (based on the opinions of current Engineering staff).
7. **CRITICAL SUCCESS FACTORS** – provides a list of the skills you need or criteria you have to meet to be successful and satisfied as an Engineering/Applied Science staff member.
8. **OPG CONTACT INFORMATION**

# 1. OVERVIEW OF THE HIRING PROCESS

*“What can I expect when applying for the job?”*

**STEP 1:** Vacancy is advertised. All applicants must submit an application on-line.

**STEP 2:** All applicants must be eligible to work in Canada. Applications will be reviewed to determine if they meet the following criteria:

- Bachelor of Engineering degree from an accredited university, OR
- Applied Science degree from an accredited university.

**STEP 3:** Interview – Those candidates who meet the screening requirements will be invited to attend a structured, behaviour-based interview.

- The interview will consist of a series of job-related, structured questions. With structured
  - questions, all candidates are asked the same questions and evaluated against the same job-related criteria as other candidates.
- The questions are behaviour-based, that is, candidates are asked to provide examples of how they have dealt with various job-related scenarios in the past to demonstrate that they have the requisite skills.

Further assessment may also be required. Candidates will be informed of any alternate assessments once they pass the screening phase (i.e., Step 2).

**STEP 4:** Short-listed candidates will be notified of any further selection requirements such as the following:

- Security checks: Applicants can expect to provide information to allow OPG to conduct a security check. Offers of employment are conditional on a successful security clearance
- Medical requirements: Applicants must complete a confidential medical information questionnaire.
- Reference checks: Applicants' references will be checked.

## 2. LIFE AS A NEW ENGINEERING/APPLIED SCIENCE TRAINEE

*“What happens when I first start working at OPG?”*

The following is a brief overview of the various specializations within the Engineering/Applied Science job family, the orientation/training process, and the probationary period.

- 2.1 ENGINEERING DIVISIONS:** Upon hire, Engineering/Applied Science trainees will be assigned to one of several Engineering Divisions within the Nuclear Business Unit at OPG. While positions in each Division do have things in common, they also have unique duties and responsibilities. The major Divisions are briefly described in Table 1 below.

**TABLE 1 - ENGINEERING DIVISIONS**

| <b>Divisions</b>              | <b>Description</b>  | <b>Locations</b>          |
|-------------------------------|---|---------------------------|
| 1. Projects and Modifications | Projects & Modifications Division manages the majority of the projects in the Nuclear Project Portfolio, as well as most of the design and installation contracts that support the project work program.  | Darlington and Pickering  |
| 2. Engineering Services       | Engineering Services provides conceptual and detailed designs for plant modifications and maintains responsibility for key programs across all stations, including welding, chemistry, steam generator performance, digital control computer performance and engineering analysis. As well this department manages developmental programs including CANDU owner’s group programs in aid of the component life cycle management. | Pickering (predominantly) |

**TABLE 1 - ENGINEERING DIVISIONS**

| <b>Divisions</b>                                   | <b>Description</b>  | <b>Locations</b>   |
|--|---|--|
| 3. Plant Design                                    | Plant Design maintains station design basis and ensures systems are in compliance with standards, codes and license conditions. As the Design Authority for the station, this Division specifies design requirements and authorizes design modifications to the nuclear station.  | Darlington and Pickering   |
| 4. Station Engineering                             | Station Engineering provides day to day support to plant operations to assure operation of the reactors within design and licensing requirements, improve system and station performance through surveillance and trending, and support preventative and predictive maintenance activities.   | Darlington and Pickering   |
| 5. Inspection, Maintenance and Commercial Services | Inspection, Maintenance and Commercial Services (IM&CS) is a leading provider of inspection, specialized maintenance and technical services both inside and outside of OPG. Using state-of-the-art robotic inspection technologies, IMS provides reliable detection, characterization and sizing of material flaws in a variety of client components and equipment. | Darlington and Pickering, can include travel to other Nuclear facilities within the province |
| 6. Nuclear Generation Development                  | The Nuclear Generation Development (NGD) division is responsible for proposed refurbishment considerations of the existing Pickering B and Darlington plants. The work program includes support for program infrastructure and risk analysis, and engineering analysis and life cycle planning/analysis for life extension consideration.                           | Darlington and Pickering   |

**TABLE 1 - ENGINEERING DIVISIONS**

| Divisions                         | Description  | Locations  |
|-----------------------------------|--|--|
| 7. Darlington New Nuclear Project | The Darlington New Nuclear Project Division is responsible for the overall delivery of the new nuclear plant at the Darlington site. Accountabilities of this department include design review to ensure compliance with the appropriate codes and standards, Engineering commissioning support during station commissioning, licensing interface with the regulators, development of engineering governance, manage vendor quality and provide overall engineering Project Support. | Durham Region support offices or Darlington site |

Newly hired Engineering/Applied Science trainees can express a preference for which Division they would like to work under, although the primary factor in determining Division assignment is the operational need of OPG. Therefore, although individual preferences will be taken into consideration, positions in preferred areas cannot be guaranteed.

In this document, you will receive a description of those aspects of the job that are common across all Engineering Divisions.

**2.2 ORIENTATION & GRADUATE TRAINING PROGRAM:** Once hired by OPG, candidates begin general and position-specific orientation and training. Successful training performance requires the ability to be self-directed in one's learning, a willingness to learn new information outside of one's discipline, comfort with being evaluated, and the ability to keep up-to-date with training needs and requirements.

**TRAINING FORMAT AND CONTENT:** Newly hired Engineering/Applied Science trainees are required to complete classroom and computer-based training (CBT) courses, as well as on-the-job training. Training focuses on aspects of the job that are common across all Engineering/Applied Science trainee positions, as well as on aspects that are specific to a particular position or division (e.g., Engineering & Modifications). Training falls into three broad areas: Mandatory Core Training, Extended Core Training, and Position-Specific Training.

**MANDATORY CORE TRAINING:** This training is common across all Engineering positions, and includes courses such as Introduction to Reactor Technology and Operating Policies and Principles. Mandatory core training is delivered through both classroom and CBT formats and must be completed before incumbents can begin position-specific training.

**EXTENDED CORE TRAINING:** This training is common across Engineering divisions, and may include topics such as principles of nuclear safety, introduction to the Pickering and Darlington plants, and nuclear station systems. The specific requirements of extended core training will depend on the division to which one is assigned. Extended core training is delivered via classroom and CBT formats and does not need to be completed before starting position-specific training.

**POSITION-SPECIFIC TRAINING:** Each division in Engineering has a variety of specific positions associated with it. Therefore, some aspects of the training will vary depending on one's position. Such position-specific training is designed to provide the unique knowledge that is necessary to work within a specific job family. If Engineering/Applied Science trainees change positions or departments, the receiving supervisor will assess new position-specific qualifications against those already possessed, and additional training requirements will be established if any gaps are identified. This type of training is largely done on the job, but may also involve attendance at external (i.e., off-site) courses.

**POSITION-SPECIFIC QUALIFICATION:** Once Mandatory Core, Extended Core, Position-Specific Training, and a minimum amount of time demonstrating satisfactory performance on-the-job have been completed, Engineering/Applied Science trainees are considered "Qualified". Qualification means that an Engineering/Applied Science trainee is considered able to work independently in a specific duty area.

**ACCESS TO TRAINING:** Training that is delivered via computer can be accessed at any time, provided that prerequisites have been met. Delivery of classroom training is scheduled throughout the year and based on demand. On-the-job training is provided continuously.

**TRAINING SCHEDULE AND DURATION:** During the two year Graduate Training Program, new hires can expect to spend most of their time on-the-job, rather than in a classroom. Upon hire, new personnel are assigned to a division. Once assigned to a division, trainees begin two months of in-class, mandatory and extended core training. Position-specific training, is generally completed within the first two years after hire. The duration of position-specific training will depend on one's position,



although this usually ranges from 18 months to 4 years. Training for positions in the Plant Design and Engineering Services divisions typically takes the most time to complete (e.g., 4 years). Trainees are expected to remain in the Graduate Training Program for the full duration of the program in order to derive maximum benefit from all the associated teaching/learning.

**TESTING AND EVALUATION:** In order to confirm learning, trainees can expect to be tested and evaluated at various times during the Graduate Training Program. For example, once a CBT module has been completed, a trainee is usually required to complete an online test related to the content of that module. Classroom knowledge is evaluated using written tests and/or practical demonstration of skills. Position-specific training is evaluated by supervisors using "Practical Evaluation" measures. Upon successful completion of the Graduate Training Program, trainees will be placed in a position; this position is usually in the same Engineering Division to which the trainee was initially assigned. After sufficient experience has been acquired, incumbents in certain divisions (e.g., Plant Design) may be required to obtain their Professional Engineer of Ontario (PEO) certification.

**JOB ROTATION AND ORIENTATION:** Upon completion of core and extended core training, new Engineering/Applied Science trainees will participate in rotations across various other areas and positions in the organization – primarily with other Engineering divisions. Shorter rotations (e.g., 3-5 weeks) may also take place with production crews during which shift work (e.g., days-nights) is required. The purpose of job rotations is to provide trainees with a broad set of organizational experiences and a more diverse and integrated view of OPG operations.

**MENTORING:** New Engineering/Applied Science trainees are assigned a mentor. The mentor serves as a knowledge resource and expert reference for advice and orientation on various aspects of the job and training. Mentors are also in charge of providing specific work assignments to new trainees.

## **2.3 PROBATIONARY PERIOD**

**2.3.1 PROBATIONARY PERIOD:** The first three months of employment are considered to be a "probationary period" for Engineering/Applied Science trainees. However, the probationary period may be extended to six months, if required. Mandatory union membership and access to OPG benefits are provided during this period. Pension plan enrolment begins upon commencement of employment.

### 3. OVERVIEW OF THE ENGINEERING/APPLIED SCIENCE JOB

#### *“What is the job like?”*

Below is a broad description of the responsibilities, duties and other characteristics (e.g., work schedule, work load) of the Engineering/Applied Science job. The overview is not meant to be exhaustive in its description. Rather, the duties and characteristics described provide a summary of some of the key aspects of the Engineering/Applied Science job. Trainees will be involved in most of the duties detailed below.

#### 3.1 RESPONSIBILITIES OF THE ENGINEERING/APPLIED SCIENCE STAFF AT

**OPG:** In general, the role of the Engineering/Applied Science staff member comes with some key responsibilities and expectations. Engineering/Applied Science staff are required to abide by a set of standards and practices to ensure that engineering is performed in a consistent manner across OPG. Engineers are responsible for the following practices:

- Ensuring that each nuclear station performs reliably and is maintained in accordance with the design and licensing requirements. Engineers are responsible for ensuring that preventative maintenance, inspection, testing, surveillance, and monitoring are performed in accordance with their design bases.
- Ensuring that essential plant equipment performs safely and is operated within its safe operating parameters. Engineering personnel are required to consider nuclear safety as the overriding priority, to take responsibility for safety, and to foster a safety culture. Decisions and actions are based on this priority.
- Encouraging continuous improvement in the conduct of engineering to achieve safe, reliable, and competitive operation of the nuclear power generating stations. For instance, Engineering/Applied Science members must encourage justified improvements in plant or system design margins.
- Complying with expectations specified in applicable legal, statutory, and regulatory programs/policies/guidelines.

#### 3.2 JOB DUTIES

Following are some of the duties carried out by Engineering personnel on a regular basis:

**3.2.1 ANALYSIS AND PROBLEM SOLVING:** A significant portion of an Engineering staff member's work will involve analysis, solving various types of problems, and implementing solutions. Engineering/ Applied Science Trainees need to interpret technical data, use knowledge and experience in troubleshooting, and act as a technical expert to others involved in solving problems. This includes recognizing how technical systems are interrelated, as well as using knowledge of industry trends and operating experience to anticipate future problems. Therefore, Engineering/ Applied Science Trainees require sound analytical and critical reasoning skills, as well as a general interest in, and aptitude for, solving problems. In addition, Engineering/Applied Science staff are expected to act proactively when solving problems. For example, when more information is required in order to analyze and resolve a problem, Engineering/Applied Science staff should be willing to find and access this information without waiting for others to do so. This may involve contacting trades technicians, other subject-matter-experts, acquiring technical data from contractors, and so on.

Engineering/Applied Science Trainees at OPG must also engage in continuous learning in order to solve problems in areas that extend beyond their formal educational background. For example, a chemical engineer may be assigned to an area where specific chemical engineering training is not a requirement – although general engineering knowledge and experience would be necessary. This requires that all Engineering personnel (including trainees) be flexible, willing to learn new information, and willing to solve a wide variety of problems.

***Engineering/Applied Science Employee Quote:***

*"The systems are large and contain a wide variety of components. It is pretty much impossible to be an expert on all of them. So when a problem arises with a component, you have to read up on it and make yourself an expert quickly in order to help troubleshoot".*

**3.2.2 WRITING (English):** Across all engineering divisions, an important part of the job is comprised of writing various types of documents and reports and maintaining everyday correspondence. Types of written documentation include technical reports, new procedures (or modifications to existing procedures), documentation updates, status reports, work plans and schedules, work requests, financial documents (e.g., budgets), business cases, emails and other correspondence (e.g., to suppliers, contractors, regulators). It is therefore critical that all Engineering staff be able to write effectively, clearly and concisely. It is also important that individuals in this role demonstrate strict attention to detail in written reports and documents, and

demonstrate patience when waiting for authorization and approval on various written work products. Note, however, that while writing is important, a sizeable part of the job may require the Engineering/Applied Science employee to be in the field, analyzing problems and troubleshooting.

**3.2.3 WORKING WITH OTHERS:** Engineering personnel regularly interact with other individuals from a variety of areas within and outside the organization. For instance, outside the organization, some Engineering/Applied Science staff will spend time working with external contractors and vendors. Within the organization, Engineering/Applied Science personnel can expect to work closely with colleagues, supervisors, and administrative staff. For example, in many divisions, regular (daily and/or weekly) meetings are held in which engineering staff are expected to actively participate in updates, problem solving, and planning. It is also common for engineering personnel to present informal and formal oral presentations during meetings.

Engineering staff also generally spend some time working closely with, and supporting the work of trades technicians. Due to the highly procedural nature of the work environment, only qualified trades technicians are permitted to handle equipment inside a plant (i.e., the Engineering/Applied Science staff member's role is "hands off"). Therefore, Engineers would work with the trades technicians to ensure that they are making modifications, repairs, etc., according to specification. In addition to face-to-face interaction with trades technicians, there is frequent telephone and email communication directed to and from trades technicians in the field.

Because engineering personnel spend so much time working with others, a variety of specific skills are critical, including effective oral communication and presentation skills, cooperation, a willingness to share information, and the ability to communicate to a variety of audiences (e.g., those outside of a given technical background).

***Engineering/Applied Science Employee Quotes:***

*"It's crucial that the new employee has strong communications skills and a willingness to work with (and learn from) a variety of different people"*

*"I work with a variety of people: engineering work at the plant is quite social, as we always need to collaborate with other people to take advantage of different areas of expertise"*

**3.2.4 SAFETY CONSCIOUSNESS:** Engineering/Applied Science Trainees are required to adhere to safety procedures at all times to proactively prevent workplace accidents

and protect their own safety and the safety of others. For example, when modifying or developing work procedures, safety must always be taken into consideration. At all times, Engineering personnel are expected to be vigilant of immediate and potential safety concerns, and to take corrective action when required. Effective corrective action requires familiarity with and strict application of the required safety procedures.

***Engineering/Applied Science Employee Quotes:***

*"[OPG] emphasizes the safety of workers"*

*"OPG's safety requirements are high"*

### **3.3 JOB CHARACTERISTICS**

Other important characteristics of the job include:

**3.3.1 WORK SCHEDULE:** Engineering/Applied Science staff at OPG generally work regular daytime hours. A typical workweek is 35 hours, comprised of 7-hour workdays (not including breaks). A typical workday begins between 7:30-8:15 a.m. and ends between 3:00-3:45 p.m. A typical workday also includes two 10-minute breaks, and a half-hour lunch break.

**Additional work schedule information:**

- In some cases, flexible start and finish times (with adherence to core work hours) can be arranged with one's supervisor.
- Engineering personnel can expect to work longer hours during planned maintenance shutdowns or when special repairs are required. During these times, one may be required to work overtime, 12-hour day shifts, and/or be "on-call", depending on workload.
- Engineering/Applied Science staff are paid overtime wages or an on-call allowance.
- Typically, the only period during which Engineering staff would be required to work rotating night-day shifts would be as trainees, during periods of Job Rotation/Orientation (described above in the Orientation/Graduate Training Program section of this document). On occasion, day/night shifts are also required in support of outages.

**3.3.2 WORK ENVIRONMENT:** All Engineering personnel (including trainees) should be prepared to work in the office and in a field setting. In the office, much of the time is spent completing documentation on a computer (i.e., sitting), or meeting with individuals internal and external to the organization. The office setting is operated under artificial light. Typically, engineering offices are located in close proximity to a plant, but are not actually within a plant. Therefore, Engineering/Applied Science staff will spend time walking/traveling back and forth between offices and the plant.

Engineering/Applied Science personnel (including trainees) will spend some of their regular working time in the field (e.g., a station), commonly when supporting trades technicians on maintenance and repairs or doing walk-downs of equipment. When working in this environment, it is common to spend time walking around various sections of the station and climbing stairs and ladders. Those working in the Station Engineering Divisions generally spend the most time in the station environment compared to other divisions (30-50% of their time).

OPG wishes to inform persons working at a nuclear facility of risks associated with radiation exposure. Workers who receive this information should be able to place radiation risk in perspective with other occupational risks and learn to treat radiation with caution but without excessive, unjustified fear. It is very unlikely that any radiation exposure received in an Ontario Power Generation nuclear generating station by any person would be large enough to cause any alarm. OPG has set ambitious goals for their nuclear program in protecting the health of workers and the public. These goals are:

- To prevent acute (immediate) radiation effects to employees and members of the public.
- To limit delayed effects occurring in employees and members of the public to levels as low as
- reasonably achievable.
- To provide a level of safety that is as good as, or better than other safe industries.

In accordance with the above-mentioned goals, Personal and Protective Equipment (PPE) and clothing (appropriate to the work activity and job location) are provided and required at all times when in a nuclear station. Extra PPE may be required depending on the work activity or job location. Some of the equipment and clothing can be heavy or feel restrictive (e.g., plastic suits, respirators). Engineering staff

(including trainees) should be comfortable being restricted in this manner. Specific safety training is provided and required prior to working at a station.

OPG has implemented highly secure locker room facilities, separated for men and women. When going into certain areas of the station, engineering staff will be required to change from their street clothing into their Personal Protection Equipment (i.e., safety clothing). As such, individuals will need to be/become comfortable disrobing in front of their same-sex colleagues because of non-partitioned same-sex locker room facilities.

Engineering personnel may also be required to visit off-site locations (e.g., other plants, contractor businesses), which may require extensive time driving in a vehicle.

- 3.3.3 WORK PACE:** Much of the work completed by Engineering personnel is associated with specific timelines, which means that individuals working in these positions often feel pressured to meet deadlines. These deadlines are imposed by both internal controls (i.e., OPG policies and procedures) and by external regulating bodies, and are especially critical during planned shutdowns. Tasks must be constantly monitored with respect to deadlines, prioritized, and reprioritized based on changing conditions. Meeting deadlines can sometimes be frustrating due to procedural delays that are beyond one's control. As such, in these roles, one must be prepared to work in time-pressured situations while also dealing with procedural delays.
- 3.3.4 VARIETY:** Although a lot of an Engineering staff member's time is spent in an office environment, individuals in these roles typically experience a considerable amount of job and task variety, which require a range of skills. Duties can include project development and planning, troubleshooting, and developing and preparing procedures. These duties are carried out in a number of environments (e.g., plant/field), while working with people from various areas of the organization.
- 3.3.5 DISCRETION AND RESPONSIBILITY:** In terms of discretion used in completing one's work, all Engineering/Applied Science staff will be provided with multiple tasks and task milestones by their supervisor. They have discretion in how they carry out day-to-day tasks as long as work is prioritized in accordance with the supervisor's/project's timelines. Supervisors will check and oversee a trainee's work frequently; however, the typical qualified Engineering/Applied Science staff member works independent of constant supervision. The amount of direct supervision can change, based on the nature of the work at hand. As well, the final products of all Engineering/Applied Science staff are verified for adherence to applicable standards.

In terms of safety, all employees (including Engineering/Applied Science trainees) are responsible, at all times, for ensuring the safety of themselves, coworkers, the organization, and the public, in all of their actions.

**3.3.6 WORKLOAD:** Workload can vary depending on operational needs (e.g., required repairs), time of year, and planned shutdowns. The workload will be heavier during planned shutdowns than during other times of the year and will also be heavier when deadlines need to be met. In general, the workload is moderate and manageable.

**3.3.7 WORKPLACE ACCOMODATIONS:** Accommodations can be made for those with certain physical limitations. Alternate work arrangement policies are in place for women who are pregnant or for men and women with immediate plans to conceive children, such that chances of exposure to radiation are minimized. (Detailed policy information is available once you begin working at OPG or by contacting an OPG representative).

## 4. TRAINING REQUIREMENTS & CAREER OPPORTUNITIES

*“Do I need to keep learning? And, where can I go from here?”*

**4.1 CONTINUOUS LEARNING:** Continuous learning and training is something that one should expect in the role of an Engineering/Applied Science staff member at OPG. A minimum of 28 hours of continuing training per year is required for all Engineering personnel, and is most often directly related to position-specific duties and tasks. The format of continuing training may include reading assignments, computer-based training modules, classroom training, off-site seminars, etc.

In addition, all Engineering staff are expected to maintain and renew regulatory training qualifications as necessary (e.g., Radiation Protection Training).

Engineering/Applied Science staff need to take an active role in monitoring their training and re-qualification needs (e.g., they will need to monitor and request training when qualifications are close to expiring).

**4.2 ADVANCED DEGREES:** OPG supports a limited number of staff that wish to pursue advanced degrees (e.g., the University Network of Excellence in Nuclear Engineering (UNENE) Masters of Engineering). Several criteria must be met (e.g., relevance to one’s position, ability, etc.) in order to qualify for this program. Up to 10 individuals per year are selected for sponsorship in a Masters of Engineering program depending on the operational needs of the organization, although applications for this program



generally exceed the number of sponsorships available. Individuals applying for such programs will also need to be accepted by the host Universities.

**4.3 CAREER OPPORTUNITIES:** Various opportunities are available for trainees and qualified staff members.

While in the Graduate Training Program, trainees are expected to remain in and complete the program (i.e., to not move to another department). However, trainees will be required to perform job rotations through 1-2 other divisions during their training period.

Qualified Engineering staff can move to different positions at the same level in the organization (“lateral move”) or can move to higher positions at OPG (“vertical move”).

- Lateral moves typically involve getting a position in one of the other Engineering Divisions or moving elsewhere in the organization to non-engineering positions. Such moves will likely require additional training.
- Vertical progression can occur both within the Engineering Divisions and into alternate Engineering, non-Engineering, and supervisory positions. Vertical job levels within the Engineering Divisions are shown below, along with the time it generally takes to progress through each level. Typically, advancement through these levels requires on-going skill development after becoming qualified. Each level is associated with a specific wage schedule.

- New Hires (in training): 24 months
- Assistant Technical Engineer/Officer: 2-5 years
- Technical Engineer/Officer: 5-10 years
- Senior Engineer/Officer: Greater than 10 years

In order to advance to other Engineering Division positions, to positions outside Engineering (e.g., Business Analyst), or into supervisory positions (e.g., Section Manager, Shift Manager), incumbents must apply to the position and are required to meet the selection criteria (e.g., qualifications and experience) relevant to that position.

## 5. PAY, BENEFITS AND REWARDS

*“Is it a well-paid job?”*

- 5.1 WAGES AND BENEFITS:** Engineering staff are members of the Society of Energy Professionals (union), and wages and benefits are based on the collective agreement. Both the wages and the benefits are very competitive and satisfying. Annual pay progressions occur on the employee’s anniversary of employment start date. In addition, the union negotiates yearly economic increases.
- 5.2 BONUSES:** Employees are eligible for an annual “Award For Performance” bonus based on an assessment of their performance against their personal performance plan.

## 6. REWARDS AND CHALLENGES OF BEING AN ENGINEERING/APPLIED SCIENCE TRAINEE

*“What does other Engineering/Applied Science staff think about the job?”*

- 6.1 REWARDING ASPECTS:** According to current job incumbents, the Engineering/Applied Science positions have a number of particularly interesting and desirable aspects.

**PAY AND BENEFITS:** Engineering/Applied Science personnel find that OPG wages and benefits are competitive and satisfactory.

***Engineering/Applied Science Employee Quotes:***

*“There are a lot of benefits such as a health plan, dental plan, and good working hours.”*

*“The pay and benefits are very good.”*

*“[OPG offers] good benefits, good hours, and a good salary. This expectation was not only met, but exceeded.”*

**VARIETY:** Engineering staff carry out an array of duties (e.g., technical support, project management), and work with a variety of people across many areas of the organization.

**Engineering/Applied Science Employee Quotes:**

*"There's always a lot going on. We're constantly asked to pitch in and help. As a result, you end up doing something completely outside of your job description, which I find challenging and exciting."*

*"I interface with pretty much all departments and get good exposure to their work processes. This provides good opportunity for networking and making contacts throughout the plant."*

**TRAINING OPPORTUNITIES:** The training requirements of the job are high but they help Engineering/Applied Science staff become adept at their work and develop their expertise through exposure to a variety of opportunities.

**Engineering/Applied Science Employee Quotes:**

*"The training that is provided helps me become adept at work tasks, making work more satisfying and improving my confidence in return."*

*"OPG fosters a 'learning culture', and there is definitely always a lot to learn!"*

*"[I am] constantly learning about different systems in the plant (i.e., by doing a variety of work). Lots of helpful people are more than willing to lend a hand, and so, I am constantly challenged."*

**IMPACTFUL WORK AND VISIBLE RESULTS:** Engineering staff at OPG are constantly solving important problems and often work on various phases of projects, allowing them to see the overall impact of their work on the system as a whole. Many also find it rewarding to work in a large critical-service organization.

**Engineering/Applied Science Employee Quotes:**

*"Working a project from inception to completion, seeing new equipment started up and put into service, and positively affecting performance of the station is very rewarding."*

*"I'm able to address real problems in the plant, and I know that my work will make a difference in the operator interfaces and/or overall system health."*

*"Providing a service that is valuable to the Province is rewarding."*

**6.2 CHALLENGING OR UNAPPEALING ASPECTS:** As with any job, there are aspects of the job that are less desirable, even negative in some cases, and challenging to manage.

**PROCEDURAL DELAYS:** For obvious reasons, the Nuclear Industry is strictly regulated. In addition to external regulations, OPG has many internal policies and procedures that are designed to promote effective functioning and safety. All work needs to be documented, approved, and follow a chain-of-command, which entails a

steep learning curve for new hires, and often results in delays that are beyond the control of an Engineering staff member. As a result, it often takes a long time to get work finalized or to institute changes. Such delays can be frustrating.

**Engineering/Applied Science Employee Quotes:**

*"The pace of work in the field is often frustratingly slow due to many procedural barriers."*

*"Learning all of the processes, procedures, and relationships between departments (who does what) is challenging - but this is probably the same for any large corporation."*

**TRAINING & ORIENTATION:** Required, on-going training is not always available when individuals want to receive this training. It is not uncommon for course implementation to be delayed pending a certain level of demand (i.e., adequate class size) or due to operational demands (e.g., emergent plant-related issues that need to be prioritized). Recently the new Graduate Training Program has been revised to include a structured orientation and training program, which allows new hires the opportunity to get to know others who have joined OPG.

**PAPERWORK:** Stringent procedures and policies also result in a considerable amount of paperwork that must be completed by Engineers. This paperwork can contribute to delays, and also means that Engineers spend a lot of time doing procedure-related paperwork in addition to their technical work.

**Engineering/Applied Science Employee Quotes:**

*"There is a lot of paperwork tied to all forms of work, and sometimes small tasks take a long time to complete due to the established procedures."*

*"Procedures and processes are often cumbersome, requiring large amounts of paperwork, and it's difficult for an individual to affect procedural improvements."*

*"A lot of new grads get discouraged with all the paperwork that goes along with all the jobs."*

## 7. CRITICAL SUCCESS FACTORS

***"What does it take to be a good Engineer/Applied Science staff member?"***

This RJP summarizes the most important aspects of the Engineer/Applied Science job. Review the following list of factors important for success and satisfaction as an Engineer/Applied Science staff member at OPG. Use the list as a self-assessment guide to think about how well your skills and preferences match those necessary to be successful in this role.

### Can I...

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- Work autonomously, including managing my own time and project schedules
- Direct my own learning (i.e., study independently during training)
- Accept criticism about performance and make the required changes
- Work under tight deadlines when required
- Work within and follow stringent operating procedures and policies
- Make effective written and oral presentations

### Am I...

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- Able to adjust plans based on constantly changing operational needs
- Interested in learning new information
- Willing to work in areas outside of my educational background
- Detail oriented
- Willing to work with others from a variety of positions (e.g., outside contractors, technicians, etc.)
- An analytical thinker
- Interested in solving problems
- Self-motivated

### Will I...

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- Be safety conscious
- Deal effectively with lengthy procedural delays
- Persevere in challenging and changing circumstances
- Take ownership of problems and be accountable for results
- Mind writing reports, procedures and other documents on a regular basis

## 8. OPG CONTACT INFORMATION

### “How can I get my questions answered?”

For further information please consult OPG’s website [www.mypowercareer.com](http://www.mypowercareer.com) to get more information or to contact OPG.

## CLOSING REMARKS

In this document, we have attempted to provide you with BASIC information about the Engineering/Applied Science position – that is, information that is **Broad** in its coverage, **Accurate** in its depiction of the job, **Specific** to the Engineering/Applied Science job, **Important** to being satisfied in this position, and based on **Credible** information gathered directly from current job incumbents.

We hope the information has been useful in helping you decide whether you would like to submit an application to OPG for this position.