



**APEGNB
AIGNB**

Association of Professional Engineers and Geoscientists of New Brunswick
Association des ingénieurs et géoscientifiques du Nouveau-Brunswick

www.apegnb.com

183 Hanwell Road, Fredericton, New Brunswick, Canada E3B 2R2 tel./tél. 506 458-8083
183, chemin Hanwell, Fredericton (Nouveau-Brunswick) Canada E3B 2R2 fax/télé. 506 451-9629

Period - To/From	Record of Work - Minimum of one entry per month. List employer's name for each entry	Verification by PEng or PGeo
Période - De/À	Dossier de travail - Enregistrez au moins une inscription par mois. Donner le nom de l'employeur pour chaque inscription.	Vérification par ing. ou géo.
June 1, 2010/ June 19, 2010	I started my job as a junior practitioner in the head office in Fredericton, NB. I was given estimating assignments as training. Initial estimating tasks were focused on quantity take off for concrete materials and formwork. Also during this period, I enrolled in courses to write the American Concrete Institute (ACI) – CSA Based exam. The exam consists of a theoretical section and a practical/lab section. I have successfully passed the exam and was certified as a Concrete Testing Tech. Grade I	
June 20, 2010/ June 31, 2010	<p>I was sent to Saint John, NB to work with the concrete field engineering team at the Cogeneration Plant Project. This is a design-build project to construct a natural gas-fired 305 MW industrial cogeneration facility. For the next six months I was mainly responsible for assisting the superintendent in supervising labour crews and performing all pre- and post-concrete pour inspection tasks. Also, I was in frequent communication with the design team as well as various project team leads and project managers. I undertook periodic safety training courses, as well as quality control courses, for both theory and practical training.</p> <p>My daily responsibilities were mostly repetitive, but spread out in six main areas of the project site:</p> <ul style="list-style-type: none"> • Combustion Turbine Generator (CTG) area • Steam Turbine Generator (STG) area • Heat Recovery System Generator (HRSG) area • Water Treatment Facility area • Utility/Pipe Rack area • Auxiliary Boiler and Stacks area <p>Please see details of work assignments below:</p>	

July 1, 2010/
July 31, 2010

During this month my work assignments were focused in the Combustion Turbine Generator (CTG) area. My main task was to successfully coordinate and supervise the construction of several foundation footings of different sizes along with their grade beams, slabs and structures supporting the generator. On a daily basis, I would perform the following tasks:

- Performing design checks and analysis of constructability issues. Then, discuss findings with design team and propose possible solutions and/or adjustments to design.
- Review structural drawings and coordinate with rebar subcontractor's detailers before issuing rebar shop drawings. Then double check shop drawings to ensure compliance to structural design and constructability.
- Track anchor bolt dimensions and quantity and ensure compliance with design.
- Preparing comprehensive work plans/work packs detailing the type of work to be executed, material quantities, quality checklists and Inspection Test Plans (ITP's), safety issues and approved construction drawings (IFC's).
- Conduct thorough pre-pour inspections of formwork and rebar quantity, spacing and alignment. Also ensure correct methods of concrete pouring and curing as well as anchor bolts and embedded metals installation.
- Design custom made templates and wooden beams for anchor bolts before and during concrete pour. Prepare construction sketches for labour foremen for same. Prepare sketches for labour foremen detailing execution plan and form work installation.
- Design and prepare sketches detailing proper support for rebar and embedded metals in preparation for concrete pour.
- Ensure successful administration of various on-site concrete tests (especially air content and slump tests) as well as correct storage and collection of compressive strength specimens.
- After completing my inspections, I would coordinate two more inspections by our QC/AC team and the third party inspection (independent company). If issues are found, I would complete Quality Incidents Reports and Non-conformance report and discuss findings with quality manager and client's engineers.
- Communicating with the surveying team and explaining design and required layouts as well as accurate positioning of anchor bolts.

	<p>Tasks performed on a weekly basis:</p> <ul style="list-style-type: none"> • Communications and discussions with the structural steel team to ensure accurate installation of anchor bolts for the purpose of erecting structural steel columns, • Prepare general job hazard analysis reports and ensure that labour crews are aware of hazards in their surroundings. Also, in coordination with the safety department. I conducted tours through the site and prepared a safety presentation for project teams illustrating my findings and issues deserving extra attention. • Attending and reporting in weekly scheduled meetings with other project teams and project manager. • Reviewing concrete team weekly costs and discussing production rates improvements with construction manager, superintendents and (construction) discipline lead in the weekly Labour Distribution Report meetings. • Tracks documents related to standards and quality of materials delivered, i.e. Mill Test Reports for rebar, embedded metals and anchor bolts. • Communicate with rebar and concrete suppliers and tracking their invoices. • Prepare and maintain materials inventories, i.e. scaffolding, anchor bolts, formwork. 	
<p>Aug. 1, 2010/ Aug. 31, 2010</p>	<p>During the month, I started working on the Steam Turbine Generator (STG) area. Primarily, conducting similar tasks as detailed above. The scope of the work consists of supervising/assisting superintendents in the construction of foundation footings, slabs and the concrete structures supporting the application of slab hardeners compounds on all slabs poured on site a week after each one was poured.</p>	
<p>Sept. 1, 2010/ Sept. 30, 2010</p>	<p>During this month, I moved to work on the Heat Recovery System Generator (HRSG) area, primarily conducting similar tasks as detailed above. The scope of the work consists of supervising/assisting superintendents in the construction of foundation footings, slabs and the concrete structures supporting the generator. Also, I was supervising the construction of some of the high walls in this area and the STG area which required the use of self-consolidating concrete due to difficulties reaching concrete by vibrators during pouring/finishing. I coordinated the concrete testing and addition of super plasticizers and air entraining admixtures when needed to fully comply with design and quality standards regarding various concrete mix designs. Also, I completed safety courses dealing with confined space safety procedures, as well as First Aid and CPR certification.</p>	

<p>Oct. 1, 2010/ Oct. 31, 2010</p>	<p>During the month of May, I worked at the Water Treatment Facility area, conducting similar tasks as detailed above. The scope of the work consists of supervising/assisting superintendents in the construction of foundation footings, slabs and concrete pads supporting mechanical equipment. Also, circular foundations to support two water tanks were constructed. During this period specifically, High Early strength (HE) concrete was extensively used in order to make schedule which required custom treatment and expeditious pour/finishing methods. Some design mistakes were found regarding the shape and orientation of concrete pads which prompted design changes. Other problems were encountered with the swell strips (water stops). I was in communication with the design team in order to increase the thickness of containment walls (minimum extra 3” on each side) to avoid concrete scaling and cracking due to expansion of the swell strips.</p>	
<p>Nov. 1, 2010/ Nov. 30, 2010</p>	<p>During this month, I worked at the Utility/Pipe Rack area, conducting similar tasks as detailed above. The scope of work consists of supervising/assisting superintendents in the construction of foundation footings of different shapes and sizes, slabs and concrete pads supporting mechanical equipment. Starting this month, we began using cold weather concreting methods. This included heating the grade for prolonged periods in order to reach suitable temperature (generally above 5C) before pouring to avoid freezing of the concrete. Also, I made sure that hoardings were erected and enough heating hoses were deployed to provide sufficient heating to freshly poured concrete structures and maintain suitable concrete curing conditions.</p>	
<p><u>Engineering OR Geoscientist Supervisor:</u> Please provide name, address & telephone number. Please verify that the work activities recorded are complete and accurate.</p> <p><u>Ingénieur OU Géoscientifique surveillant :</u> Donnez votre nom, adresse et votre numéro de téléphone. Vérifiez que les activités enregistrées sont complètes et précises.</p>	<p>Name/Nom: Address/Adresse:</p> <p>Tel/Tél:</p>	

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183 chemin Hanwell Road, Fredericton, NB, E3B 2R2
FAX / TÉLÉCOPIEUR : 506-451-9629

MEMBER-IN-TRAINING (MIT)
PROGRESS REPORT FORM

NOTE: This form is to be submitted with your 6-month, 2-year, and finally, your 3-year Log Book submissions. Your Log Book report will not be reviewed without it. Four years of applicable engineering or geoscience work experience is required to gain professional status.

1. During this period, I obtained the following practical experience:

I worked for a period of six months as a field (engineer in training) specialist at the Cogeneration Plant Project. During this period, I was mainly responsible for assisting the superintendent in supervising labour crews and performing all pre and post concrete pour inspection tasks. Also, I was in frequent communication with the design team as well as other project team leads and project managers.

2. During, this period, I obtained the following experience in the application of theory: (Note – Please identify relationship between education and experience, where applicable.)

Experience in application of theory was gained by analyzing concrete mix designs and determining the right mix while considering factors such as temperature, exposure of structure to water/snow, speed of hydration, etc. Also, experience was gained from conducting concrete field tests as well as documenting concrete specimen compression tests. Moreover, application of theory experience was gained from designing anchor bolt templates and wood beam supports which are fixed on the form work. These designs had to take into account loads from workers (and other temporary loads) being present on the forms due to access, storage, and other issues while the structure is being constructed.

3. During this period, I obtained the following experience in the management of engineering / geoscience:

Responsibility of supervising labour crews and maintaining frequent communications with labour foremen and guide them through the steps needed to complete an operation successfully. Also, my role required that I coordinate many activities such as surveying, inspection and quality checks, making labour crews aware of job hazards and discussing with project managers production improvement issues. Scheduling and general planning were also part of my job tasks.

4. During this period, the following activities assisted in my development of communication skills:

I had experience through frequent communication with other project teams, i.e. structural steel team, piping team, mechanical team, etc. Also, I delivered safety and quality presentations as well as reporting in the weekly scheduled meetings, production meetings and labour distribution report (LDR) meetings.

5. During this period, the following heightened my awareness of the social implications of engineering or geoscience:

I became aware of the impact of construction/engineering projects in the vicinity of residential areas. I was considerate and extra careful driving to and from the job site as residents could be on foot or driving, and possibly not aware of new stop signs and the construction site entrance. Also, environmentally, I had experience in identifying which substances and containers need specific disposing measures, in addition to becoming aware of various spill protection techniques, i.e. oil and fuel from generators. Other issues I dealt with relative to social implications included Quality Control duties and Project/site safety.

6. I would like to provide the following additional, relevant information:

I attended several project-specific, in-house training sessions for this project, covering Project Safety, Quality Control, and Loss Control.