Guide for completing the Professional Licensee Work Records

P.L. Work Record Requirements:

Applicants are required to **fully complete** and submit the following **two** work records when submitting a P.L. application.

- <u>Work Experience Summary Record</u> This record is for submitting all your professional level engineering or geoscience work experience with references, including professional level engineering or geoscience experience which may not be within the Defined Scope of Practice.
- <u>Defined Scope of Practice (DSOP) Record</u> This record is only for submitting your proposed DSOP with professional level engineering or geoscience work details, for work completed within the DSOP under the supervision and control of a P.Eng. or P.Geo. References are to be provided on this record for the work within the DSOP.

Before completing the above work records, applicants are required to read all information in this guide, and to read about the minimum experience requirements and minimum reference requirements which are outlined on the following webpages:

https://www.apega.ca/apply/membership/professional-licensee

https://www.apega.ca/apply/membership/professional-licensee/work-experience

Please ensure that you meet all specified requirements before you apply, that you complete all sections of both work records, and that you provide sufficient experience and sufficient applicable references. If the minimum application requirements are not met, the application will be withdrawn. Note that refunds are not issued for withdrawn applications.

Please see all the following information for instructions on how to complete the different sections of the Work Records.

Professional Level Work Experience

You must demonstrate <u>professional level</u> engineering or geoscience work for the minimum 2 year requirement of experience in the DSOP and for the total 6 year experience requirement. This experience must be complex technical engineering or geoscience work, ie., the practice of engineering or geoscience as defined in the EGP Act, and must include the following:

- The application of relevant engineering or geoscience methodologies and problem solving that requires work beyond routine application of codes and standards.
- There should be evidence of the skillful application of engineering, geology or geophysical principles and practical experience. The applicant needs to show growth in competency and increasing ability to work as an independent practitioner. Acceptable experience may include: selecting solutions and solving problems, preparing and checking engineering designs or interpretations, showing evidence of sound technical judgment and practices, demonstrating familiarity with the use and application of pertinent technologies, procedures, systems and programs
- Acceptable experience may also include the collection and analysis of information and data. However, data collection and analysis should not be the major component of the experience for a significant period of time.

Unacceptable experience may include:

- Roles that have no engineering or geoscience content.
- Technologist/Technician Experience: Basic duties including preparation of plans, designs, plots, calculations, cost or analysis in accordance with established procedures, codes, standards, drawings or specifications if such codes or standards do not call for the involvement of a professional engineer or professional geoscientist.

Routine surveys or inspections and preparing routine reports.

Decisions that are of a routine nature usually based on clearly defined procedures, codes and standards, drawings or specifications.

Duties assigned with narrow parameters. Those areas of construction management, project controls, supply chain management and sales that do not demonstrate sufficient professional level application of theory.

Work Experience Summary Record:

On the Work Experience Summary Record you will submit your total years of professional level experience and provide references.

You are required to submit a minimum of 6 years of professional level experience. This experience must have been completed under the direct supervision and control of a P.Eng., P.L.(Eng.), P.Geo. or P.L.(Geo.) who was actively registered during the time of the supervision.

For work experience outside of Canada, senior practitioners in engineering or geoscience can be acceptable references if they had direct supervision and control of the work. Note that these references will be asked to clarify their credentials.

Although a minimum of 6 years of experience is required, applicants are encouraged to submit all their professional level experience for which the required type of references are available.

- Please tab through and fully complete each non-shaded area on the record.
- Beginning with Work Record 1, the experience must be presented in **reverse chronological order**.
- A separate work record is to be used for each job or each major position in a job.
- There are 10 work records available in the form. Note that your name, APEGA Member # and date that you enter on Work Record 1 will auto populate on the remaining records. If you require additional records, please request by sending an email to professionallicensee@apega.ca
- There should be **no overlap** in time periods, and **no gaps** between time periods. Any gaps, such as maternity leave, miscellaneous leave, unemployment, or non-engineering/non-geoscience work, would be entered on a separate work record, with areas such as company information, reference information, and work details noted as non-applicable.
- "Company" must be the company by which you are directly employed. If your work was contract work to another company, add "—contracted to xyz" directly after your Company name.
- If you are the company owner, in "**Job Title**", you must state: "Owner". If you also have a specific job title, you would add the job title directly after "Owner".
- If any work is part-time, you must enter "Part-time" directly after your job title.
- If you are providing **two or more references** for one time period, you must duplicate all work experience information on the next work record and supply the additional reference on that record.
- A minimum of 3 references covering a minimum of 72 months of professional level engineering or geoscience experience is required for a P.L. application.
- Do not enter any pre-graduate experience.

• In the Description of Engineering or Geoscience Work section on each Work Summary Record, please enter a complete summary of your professional level work experience. For each Work Record, please enter your roles, responsibilities, and types of engineering or geoscience activities that you performed for each role. This record should be a summary of the types of technical theory used and practical engineering or geoscience experience and can include information such as an overview as to how and where you personally applied engineering theory through design, design review, analysis, or problem solving in your work.

If a portion of the time period was professional level work and a portion was technologist or technician level, please provide the number of months of each, and provide a summary of each type in the applicable area on the form.

Defined Scope of Practice Record:

On the <u>Defined Scope of Practice Record</u> you will submit your proposed scope and provide all technical details of your work within that scope, demonstrating how you applied engineering or geoscience theory for each item in the proposed scope.

Please tab through and fully complete each non-shaded area on the Defined Scope of Practice Record.

Entering a proposed Defined Scope of Practice:

A Defined Scope of Practice is a specific limitation which can only include technical engineering items or technical geoscience items. <u>It can only include items for which the application of engineering theory or geoscience theory is demonstrated in the work.</u>

- **Discipline:** Please choose your discipline from the drop-down menu. Note that your scope of practice must be in one of the disciplines that is on the list. Your scope can only be in one discipline.
 - **Special Note for instrumentation applicants:** The Instrumentation Engineering discipline is not recognized in the APEGA engineering syllabus. If your practice is instrumentation, you would choose the discipline that best applies to you (usually this is Electrical, and sometimes Mechanical or Industrial), and then you would enter "Instrumentation" as your Field of Practice. Please refer to the **Scope Samples List** for examples of instrumentation scopes.
- Field of Practice: This is the subset of the discipline, and it is the specific industry or area within
 which you practice engineering or geoscience. Note that the Field of Practice would not include the
 word "engineering" or "geoscience" and would not include any of the engineering tasks that are in
 the dropdowns in the Engineering Task area. Please refer to the Scope Samples List for examples
 of the wording for a field of practice.
- Engineering/Geoscience Tasks: Please choose the engineering or geoscience tasks from the
 drop-down list. Although there are several engineering/geoscience tasks, only choose those
 which apply to your work, and for which you use the application of engineering or
 geoscience theory in the work.

When entering the engineering or geoscience tasks, please ensure that you proceed in the numerical order that they are listed on the form.

- <u>Structure, Work or Process:</u> This area is for the list of items to which the engineering or geosceince tasks apply. Items must be specific and must include temperature limitations, pressure limitations or voltage limitations wherever applicable. Please refer to the **Scope Samples List** for examples of the wording used in this area.
- For example, if your engineering tasks are "Designing", "Reporting on" and "Preparing plans and specifications for", the "Structure" section would answer the question of "What" "items" do you design, report on and prepare plans and specifications for. You would list these items in the Structure, Work or Process" area.
- The items that you list in this area should also be further specified, if applicable, by qualifiers such as the type of industry(s), building types/heights, facility types, etc. Please refer to the **Scope Samples List** for examples of the wording of this area.

- Do not enter any general terms (examples: "projects", "engineering/geoscience work", "management")
- Do not enter a job description or technical details in this area.
- Do not enter any items for which the application of engineering or geoscience theory is not required in the work.

Exclusions: Exclusions are not required. However, if there are items implied by your proposed scope which are not part of your work, you would enter them as exclusions.

For examples of the wording of APEGA scopes, please refer to the **Scope Samples List** on the website.

Please use the following example to determine how to enter a proposed scope on the form.

Sample scope of practice:

Within the discipline of Mechanical Engineering; in the field of building systems:

- Evaluating, designing, and preparing plans and specifications for: HVAC (heating, ventilation, and air conditioning) systems, hot water boiler systems, and plumbing systems for residential, commercial, and institutional buildings

The scope excludes: chiller, direct digital control, sprinkler, and steam systems.

The above scope would be entered on the DSOP record **exactly as follows**:

Discipline: Mechanical Engineering Field of Practice: Building Systems

Eng Task 1: Designing Eng Task 2: Evaluating

Eng Task 3: Preparing plans and specifications for

Structure, Work or Process: HVAC (heating, ventilation, and air conditioning) systems, hot water boiler systems, and plumbing systems for residential, commercial, and institutional buildings.

Exclusions: chiller, direct digital control, sprinkler, and steam systems

Company Information and Reference

- A separate DSOP form is required for each company/time period for which you worked within the proposed scope under the supervision and control of a P.Eng. or P.Geo. who was an active APEGA member at the time of the supervision.
- There are 6 DSOP records available in the form. Note that all information entered on Record 1 (name, APEGA number #, date, and all DSOP entries) will auto populate on the remaining records. If you require additional records, please request by email to professionalllicensee@apega.ca
- Only enter companies/time periods for which you worked within the scope under the supervision and control of a P.Eng. or P.Geo. who was an active APEGA member at the time of the supervision. Do not enter any companies or time periods which do not meet these conditions.
- Only provide references who are P.Eng. or P.Geo, who had supervision and control of your work within the scope for the entire time period entered, and who were active members of APEGA for the time of the supervision. **Do not provide any references who do not meet these conditions.**
- If you are providing more than one P.Eng. or P.Geo. reference for the same company/time period, then you would duplicate all information on an additional record and supply the additional reference information on that record.
- You are required to supply enough P.Eng. or P.Geo. references, under whose supervision and control you worked within the scope, so that a minimum of 2 years within the scope is referenced. The minimum number of references required for the scope is one.
- The reference or references used for the DSOP can be the same individual(s) that are used for the Work Experience Summary Record, if they meet the required conditions for both records.

Details of the engineering or geoscience work:

It is up to the applicant to provide sufficient details demonstrating professional level engineering or geoscience theory in the DSOP.

The details section is the main section that is reviewed by the APEGA Board of Examiners to assess whether an applicant's work is professional level engineering or geoscience work within the scope and whether it is work that demonstrates the application of engineering or geoscience theory. If there are insufficient details showing how an applicant uses engineering or geoscience theory to perform each item in the proposed scope, the scope will not be approved. Instead, the proposed scope could be revised with further limitations, or the application could be deferred, or the application could be refused.

You are required to demonstrate a minimum of <u>2 years of professional level engineering or geoscience</u> work for every item within the proposed Defined Scope of Practice.

Your details must clearly demonstrate how you use engineering theory for every item in the scope.

Details must all be in the first person and directly state that you performed the work in the scope.

The details **must be written in the following format**, directly referring to each engineering task for each item and then demonstrating how you used engineering theory for the work performed for that item. This must be done individually for each item:

<u>Format for writing the details</u> – please refer to the following formatting instructions, using a sample scope:

Discipline: Mechanical Engineering **Field of Practice**: Building Systems

Eng Task 1: Designing Eng Task 2: Evaluating

Eng Task 3: Preparing plans and specifications for

Structure, Work or Process: HVAC (heating, ventilation, and air conditioning) systems, hot water boiler systems, and plumbing systems for residential, commercial, and institutional buildings.

Exclusions: chiller, direct digital control, sprinkler, and steam systems

For the above scope, the details must be written **exactly as follows**, so that each engineering task is matched separately with each item in the scope:

I design HVAC systems for residential, commercial, and institutional buildings as follows:

-- Then you would show how you use engineering theory to completely design HVAC systems from start to finish.

I evaluate HVAC systems for residential, commercial, and institutional buildings as follows:

-- Then you would show how you use engineering theory to evaluate HVAC systems.

I prepare plans and specifications for HVAC systems for residential, commercial, and institutional buildings as follows:

-- Then you would show how you use engineering theory to prepare plans and specifications for HVAC systems.

I design hot water boiler systems for residential, commercial, and institutional buildings as follows:

-- Then you would show how you use engineering theory to completely design hot water boiler systems from start to finish.

I evaluate hot water boiler systems for residential, commercial, and institutional buildings as follows:

-- Then you would show how you use engineering theory to evaluate hot water boiler systems.

I prepare plans and specifications for hot water boiler systems for residential, commercial, and institutional buildings as follows:

-- Then you would show how you use engineering theory to prepare plans and specifications for hot water boiler systems

I design plumbing systems for residential, commercial, and institutional buildings as follows:

-- Then you would show how you use engineering theory to completely design plumbing systems from start to finish.

I evaluate plumbing systems for residential, commercial, and institutional buildings as follows:

-- Then you would show how you use engineering theory to evaluate plumbing systems.

I prepare plans and specifications for plumbing systems for residential, commercial, and institutional buildings as follows:

-- Then you would show how you use engineering theory to prepare plans and specifications for plumbing systems.

You are required to submit the details for your specific scope using the formatting and organization as is in the example above.

Examples of ways to demonstrate the use of engineering theory:

Examples of wording:

I designed X by the following steps and types of calculations/formulas.

I determined x by using y formulas, and z principles.

I designed X by doing Y type of calculation to determine Z.

I evaluated Y systems by the following steps.

In the details you are not required to show actual calculations or formulas; however you are required to refer to the types of engineering or geoscience theory used to perform the work.

There are 4 total pages provided to write the details for each Excel DSOP form. Please type your information directly onto the form, and do not surpass the character limits of the cells on any page of the **Details** section.

The Details section for each company/time period must apply only to that time period.

You can duplicate the details section for the forms which are for different companies/time periods if you performed the same work within the scope for each company/time period. Otherwise, you are required to edit the details so that they are applicable to each company/time period.

Formatting of Documents

When describing your engineering or geoscience work in each Work Record, please type your information directly into the cell, and do not surpass the character limits of the cell. Before submitting your records, please check the formatting by doing a "Print Preview".

Do not attempt to change any of the formatting or page breaks on either Work Record.

If you require additional pages for either form, please contact professionallicensee@apega.com

Both Work Records must be uploaded to your application in the **original Excel Format**. Please do not submit them in any other format.