#### FREQUENTLY ASKED QUESTION

#### PROFESSIONAL PRACTICE

PE : Professional Engineer without Practising Certificate
PEPC : Professional Engineer with Practising Certificate

ECP : Engineering Consultancy Practice

SURMITTING		
		DELMENI

1. What types of plans can a PE submit on behalf of his employer? Who bears the liability, the PE or his employer in such cases?

A PE cannot submit any plan to the Authorities except as provided for under **Section** 8A of the Registration of Engineers Act 1967 (Revised 2015):

"A PE may submit plans or drawings to any person or authority in Malaysia where such plans or drawings are in relation to an equipment, a plant or a specialist product invented or sold by him or his employer."

The PE who submits such a plan or drawing will bear the liability, even if the plan or drawing is not prepared by him.

2. Can a PE endorse proprietary roof truss system for submission to the Local Authority?

A PE may endorse the proprietary roof truss system sold by him or his employer. However, only a Professional Engineer with Practicing Certificate (PEPC) can be the Submitting Person to the Local Authority.

3. Who will be responsible if the Proprietary Roof Truss system fails?

Only PEPC can be the Submitting Person and will be held liable for plans designed by him whether directly or indirectly, including proprietary roof trusses 'designed' by others which are deemed to have been checked and approved by him.

4. Issue on liability; how to take action against foreign engineers?

Following the amendment to REA 1967, there is no distinction between local and foreign engineers. Therefore similar action can be taken for both.

5. Is a PE allowed to submit plans for charity building as a pro bono service?

Only a PEPC is allowed to be the Submitting Person. A PE is NOT ALLOWED to submit plans even as a pro bono service.

6. What is a submitting person and what is a submitting consulting firm?

Certain local authorities accept plans from submitting person who do not practise under a consulting company registered with BEM.

Submitting Person (SP) is **defined under UBBL. PEPC can be the Submitting Person** who submits plans to the Authority. Under BEM's definition, there is no such term called submitting consulting firm but rather Engineering Consultancy Practice or ECP. Submissions to the Authority must be by a PEPC practising under a registered ECP. The PEPC practising/employed under a registered ECP (who need not be a Director or Principal), can be the Submitting Person to sign the necessary CCC Forms for the ECP.

An Independent Checking Engineer (or Accredited Checker or sometimes called Checker or Reviewer) engaged to review or check on the design by the Submitting Person is NOT the Submitting Person.

7. In road projects, the relocation of existing services such as 33kV, 132kV, telecom cables, water mains and sewerage pipes, are prepared by civil engineers and submitted by them as they involve civil works i.e. trenching, reinstatement of works etc. Is this acceptable? So far these have been accepted and approved by the Utility Authority.

Yes, civil engineers registered as PEPC with BEM may do so, since such works constitute part of the infrastructure works for a building project.

8. An ECP has been appointed by a Developer to be the Engineering Consultant for a Project. The ECP has assigned a PEPC (e.g. PEPC 'A') under employment of the ECP or a director of ECP to be the Submitting Person for submission to Local Authorities. If PEPC 'A' resigns or leaves the ECP, can the ECP replace him with another PEPC (e.g. PEPC 'B') as the Submitting Person of the Project?

Yes, as the ECP has been appointed as the Engineering Consultant, thus if PEPC 'A' leaves the company, then the ECP can replace him with another PEPC 'B' as the Submitting Person for the project. However, the ECP shall immediately inform the Local Authorities and other authorities that earlier submissions were done. The ECP shall also submit the necessary updated drawings and Reports endorsed by PEPC 'B' for the Authorities' record.

9a. As the Submitting Person (PEPC of an ECP) for a C&S project, if I or the Client engages a Sub-Consultant (also a PEPC of an ECP) to design the Geotechnical and Foundation works of the project, what is my responsibility as the Submitting Person?

As the Submitting Person of the project, your responsibilities on working with the Sub-Consultant are as follows:

- i) You must be clear on the scope of works of the Sub-Consultant so that the boundary and interfacing of works are clearly demarcated. This is to prevent any missing items, missing links or gaps that could affect the overall integrity, performance and safety of the project.
- ii) You are responsible for the interfacing and works not designed by the Sub-Consultant for proper linkage.
- iii) You are responsible to ensure that the Sub-Consultant's design will not have any adverse effects on the overall design performance of the project.
- iv) On the supervision of the works, each PEPC is responsible for the works designed by him respectively. However, the sharing of the supervision team at site is allowed with the understanding of communication lines on instructions given among the Submitting Person, the Sub-Consultant and reporting from the supervision team at site.
- 9b. As a Sub-Consultant (also a PEPC of an ECP) for a project working under or with the Submitting Person to design the Geotechnical and Foundation works of the project, what is my responsibility as the Sub-Consultant?

As the PEPC of the Sub-Consultant ECP of the project, your responsibilities are as follows:

- i) Only a PEPC of an ECP can carry out the scope of sub-consultancy services.
- i) As the Sub-Consultant, you are only responsible for the design, supervision and

- endorsement of the necessary drawings, reports, Forms G of CCC and as-built drawings for the scope of works under you. The scope of works shall be clearly defined in the Appointment Letter or MOA.
- ii) You are required to supervise the works designed and endorsed by you. However, you are allowed to share the supervision team with the Submitting Person with proper understanding on communication lines, instructions given, reporting among both of you and the supervision team at site.

#### 10. Can I leave the endorsement of the SI report to PEPC engaged by the SI Contractor?

As the submitting engineer responsible for the design works, you shall ensure that the PEPC who endorses the SI report have supervised the works and you are still responsible for the SI works as per BEM Circular No. 006 "Engineers' Responsibility for Subsurface Investigation".

### 11. Is the PEPC responsible on the Health, Safety and Environment (HSE) issues at site during construction?

No, the Contractor shall be responsible to ensure Health, Safety and Environment requirements are complied with during construction and the Contractor shall appoint qualified and experienced safety officer/s as per existing law and regulations, unless it is specifically specified in your scope of works. The Contractor however, must take the necessary actions on HSE matters highlighted by the PEPC during construction.

12. I (Ir. A a PEPC) have a partnership with Ir. B (a PEPC) and we are registered with BEM as an Engineering Consultancy Practice (ECP). If one of the partners, Ir. B leaves or is no longer in practice, what should I do?

If one of the partners is no longer in practice or leaves the partnership, you have to do the following:

- i) Inform the BEM;
- ii) Form a new partnership with another partner and register as an ECP with BEM; or
- iii) Become a sole proprietorship and register as an ECP with BEM; or
- iv) Form a new company (body corporate) and register as an ECP with BEM;
- v) Inform the local authority on any change of Submitting Person, if applicable; and
- vi) The new ECP shall be responsible for the project and to complete the project.
- 13. Being a PEPC with an ECP, I am one of the many Submitting Persons of different ECP's for a Project under the PSP (who is an Architect) which is to construct three high-rise towers with a podium on a 10 acres land. I am the designer for the piling for Tower A only (but not the pile caps). There are different ECP's designing the foundation for Tower B and Tower C respectively. The PSP require me to sign CCC Form G3 "Perakuan Berperingkat: Asas Tapak" which is for the foundation. What should I do?

In the construction of a project especially a large project, there may be more than one Submitting Person (and more than one ECP) involved in the project. For foundation and structures of buildings, sometimes different ECP's will carry out different scope of works respectively, such as only Piling, or Pile caps and Stumps or Structural elements above (which may also be by different ECP's) respectively. Therefore, it is very important to be specific on your scope of works when preparing to sign any of the Form G's.

For your case, since you are the PEPC of an ECP who designed, endorsed and supervised the scope of works for Piling for Tower A only, you shall do the following at the start of your

work on this project:

- The scope of works of your involvement shall be clearly defined in your Letter of Appointment or MOA.
- ii) You should make it clear to the PSP on your scope of works as appointed for.
- iii) Upon completion of the design and endorsement of those portion of the works, the works shall be submitted to the Local Authority. Usually for a large project, there will be an ECP who will act as the overall Submitting Person of the Structural Plans (e.g. the Lead Consultant or the ECP for the major scope of works for the C&S and foundation works). Therefore, there will usually be two ECP PEPC's endorsing the drawings prepared by you for submission to the Local Authority (Both the Lead Consultant's ECP and your ECP will appear in the Drawings). Therefore, there are drawing numbers that are prepared by you and endorsed by you for submission. It is important to record these drawing numbers and title submitted.
- iv) You are responsible to supervise the works designed and endorsed by you only.
- v) Upon completion of the construction of the portion of works designed by you, you are also responsible to check the as-built drawings prepared by the licensed surveyor or contractor.
- vi) The As-Built drawings are to be endorsed again (similar to item iii) if required for submission to the Local Authority.
- vii) When preparing the Form G, in your case, it is Form G3 Foundation, you should list down the drawing reference numbers that were prepared and endorsed by you to make it clear that you are responsible only for these drawings.
- viii) Submit the Form G3 for the portion under your scope of works to the PSP.

The above process will be similar for PEPC's of ECP's who are involved in the Earthworks (Form G1), Foundation (Form G3) and Structure (Form G4) works of a project.

14. I am a PEPC with an ECP who has been engaged by a developer to be the C&S Consultant to design three rows of 2-storey terrace houses on the earthworks platform which has been completed by another PEPC. If the buildings subsequently cracked due to deformation of the ground, am I responsible?

Since you the Submitting Person who designed and supervised the 2-storey terrace houses, it is your responsibility to ensure whatever foundation and structural system proposed and designed by you, have taken into consideration the ground conditions (either natural or man-made ground) and incorporated them into your design. Therefore, you are responsible for the safety of the buildings.

15. I am a PEPC with an ECP who has been engaged by a developer to be the Infrastructure Consultant to design the earthworks for a future development of three rows of 2-storey terrace houses to be designed by another consultant, what is my responsibility on the earthworks platform handed over to the other consultant?

Since you are the Submitting Person who designed and supervised the infrastructure works (including the earthworks and ground treatment), it is your responsibility to carry out the engineering design based on sound engineering practice and standards. You shall prepare the necessary reports to record your design concept so that in the future, any other engineers taking over the earthworks platform can carry out the necessary evaluation to design the foundation and structural system for the buildings. However, you are responsible for the proper design and supervision of the platform to meet the requirement.

16. I would like to know the obligation for PE stamp and signature on as-built drawings. Is the PE stamp and signature on the as-built drawings meant only to verify size, type and dimension of the structures or includes design checking and verifying the structures are safe?

For my current case, the contractor asked me to sign with my PE stamp on the asbuilt drawing that are not designed and supervised by me.

As-built drawings are to record the works as physically constructed at site. The PEPC endorsement on the As-Built Drawings can only be made if the PEPC takes responsibility of the design and has supervised the construction works. The verification of the layout, size and dimension are done by the Surveyor engaged by the Contractor, who will need to endorse the Drawings.

	SUPERVISION
1.	Should the consultant engineer who carry out the design, supervise the works? For example, the client appoints a consultant engineer just for design but not for supervision, as supervision is by the client's team.
	Under UBBL Bylaw 5, supervision shall be <b>undertaken</b> by the Submitting Person. <b>In a project comprising many components</b> , the PEPC who endorses <b>the</b> design <b>shall be deemed to have supervised that work</b> . Even <b>though the supervision is</b> carried out by the client's team, the SP and the PEPC shall remain responsible and liable. Therefore he must have full control over the supervision team.
2.	What do you mean by supervision?
	Supervision is to ensure that construction is in accordance with the approved plans and in compliance with the UBBL or Sarawak Building Ordinance or Sabah Building By-Laws, and other relevant laws.
3.	Can I certify completion of construction if I do not supervise the construction works of the project despite it being designed by me?
	NO. As the Submitting Person, you are required to provide supervision of the construction. Therefore, you should ensure that you provide the supervision before you certify completion of the construction.
4.	I was appointed in 1997. Subsequently, the project was abandoned. Recently it was revived without my knowledge. The job is now completed and the architect asked me to re-submit and I refused. Am I acting correctly?
	You are right not to sign anything you did not supervise. You may lodge a complaint with BEM if another engineer takes over to sign the submission without your letter of release.
5.	Is Subsurface Investigation or Site Investigation (S.I.) required for each project to be developed?
	YES. You should specify appropriate S.I. to obtain the relevant subsurface information (e.g. soil and rock characteristics and parameters, groundwater information, etc.) so that the geotechnical design (e.g. foundation, slope stabilization, etc.) can be properly carried out to ensure public safety.
6.	Do I need to supervise the Subsurface Investigation (S.I.)?
	YES. All S.I. should be supervised by the professional who is responsible for the design or by qualified and experienced staff under his control. (BEM Circular No. 006 "Engineers' Responsibility for Subsurface Investigation")
7.	Can I just leave the scope of works of the Subsurface Investigation (S.I.) (e.g. locations, numbers, types of field and laboratory tests, etc.) to be specified, to the S.I. contractor?
	NO. You should properly specify and determine the numbers and suitable types of field and laboratory tests required for the site for your design later. (BEM Circular No. 006 "Engineers' Responsibility for Subsurface Investigation")
8.	Where do engineers stand when the 'supervision' part of a project is taken off from the scope of work by the JKR? In contracts with JKR it is stated clearly that the services of the Engineer are required only up to the design stage. The question is 'will the engineers still be legally responsible for the work?'

The BEM Circular is very clear on the matter; if 'supervision' is not included in the Scope of Works; do not sign the Certificate of Completion and Compliance or equivalent, especially for projects in the private sectors!

However, for public sector projects, the issue of the Interpretation Act which stipulates that any law of parliament is not binding on the government unless specifically stated otherwise, will need to be addressed.

Meanwhile, the Board of Engineers Malaysia (BEM) has advised the Director General of the JKR to include supervision by the consulting engineer when engaged to carry out design works.

## 9. I am a Submitting Person (PEPC) for Civil, Structural and Geotechnical works. Can the site supervisor at site (who represents me) be employed by the Client/Developer?

PEPC shall be responsible for the supervision. The supervision can be carried out by the site personnel who have the necessary experience, qualification and is registered with the BEM either as Professional Engineer, Graduate Engineer, Engineering Technologist or Inspector of Works (IOW). The Submitting Person (PEPC) shall be satisfied that the site personnel representing him to carry out supervision comply with the following criteria:

- a) Take instruction and direction from the PEPC; and
- b) Report back to the PEPC on the supervision works.
- c) Act on behalf of the PEPC on the supervision works.

As long as all the criteria above are fulfilled, employment by either by the PEPC or by the Client / Developer and then seconded to PEPC is acceptable.

# 10. Some Local Authority requires Soil Investigation (SI) report to be endorsed by a Professional Engineer. Can I endorse the SI report if the SI works were not supervised by me?

No, SI works shall be supervised by the professional engineer who is responsible for the design or by qualified and experienced staff under his control as per BEM Circular No. 006 "Engineers' Responsibility for Subsurface Investigation".

#### 11. Is the 2<sup>nd</sup> engineer liable for the design and works supervised by the 1<sup>st</sup> Engineer?

The "last man standing" rule applies. Whoever is the Submitting Person signing off the completion of works, will assume full liability even if some of the works had been carried out earlier before his involvement.

12. When a project is partially completed and the owner terminates the 1<sup>st</sup> Engineer's services and appoints a 2<sup>nd</sup> Engineer to take over, will the 2<sup>nd</sup> Engineer be liable for the portion of works already partially completed under the 1<sup>st</sup> Engineer?

The "last man standing" rule applies. Whoever is the Submitting Person signing off the completion works will assume full liability even if some of the works had been carried out earlier before his involvement.

#### **ALTERNATIVE DESIGN**

1. Is the PEPC engaged by a Contractor to design and endorse Temporary Works, required to supervise and be held liable for the Temporary Works?

YES. The PEPC who designed and endorsed the Temporary Works shall be responsible for the supervision of the Works.

2. As the Submitting Person for a project, what should I do when I receive the Contractor's submission of Temporary Works design?

As Submitting Person for the project, you are liable for the design of the Permanent Works while the Contractor is responsible for the Temporary Works. Your action as the Submitting Person would be:

- 1) For Temporary Works that may affect the safety of the workers and public (refer to BEM Guidelines 001 "The Role and Responsibility of Professional Engineers for Temporary Works During Construction Stage"), ensure that the Contractor engage a PEPC to design, endorse and supervise the Temporary Works.
- Verify with the PEPC engaged by the Contractor to ensure the PEPC is personally involved in the design, endorsement and supervision of the Temporary Works. (This is to prevent fake documentation or misuse of standard documents).
- 3. Is PEPC who is the Submitting Person or even Alternative Design Engineer (AD-PEPC) of project responsible for the quality and workmanship of the Contractor's work?

No, the PEPC of a project is not responsible for the quality and workmanship of the Contractor's work which is solely the responsibility of the Contractor. Contractor's quality and workmanship include materials supplied, installed or placed or cast at site, and the way and methods these works are carried out (e.g. piling, concreting, piling, steel reinforcement placing and securing, temporary works, etc.). However it is the responsibility of the PEPC to provide supervision of the works designed by him on all issues related to health and safety.

4. As the Submitting Person (PEPC) for Civil, Structural or Geotechnical works of a project, what is my responsibility in evaluating an alternative design proposed by another PEPC (either engaged by contractor or Client, AD-PEPC) for a portion of the project?

Submitting Person can only accept the alternative design provided he is satisfied that the alternative design will not have any adverse effect(s) on the overall works designed and endorsed by him. However, he still remains as Submitting Person.

#### TEMPORARY WORKS

1. How do I differentiate between Permanent Works and Temporary Works in Construction?

Refer to BEM Guidelines 001 "The Role and Responsibility of Professional Engineers for Temporary Works During Construction Stage".

2. As Independent Checking Engineer (ICE) to carry out checking of all design works by the Submitting Person (PEPC who are the Design Consultant for the Project), am I responsible to check on Temporary works by the Contractor?

As Independent Checking Engineer (ICE), the scope of works shall be clearly stated in your appointment letter. By default, the ICE shall carry out check on the analyses and design of permanent works submitted by the submitting person only. ICE can also highlight to the Submitting Person on any missing or lacking of the design of the permanent works. Unless otherwise stated in the scope of works, temporary works are not within the scope of works of ICE in terms of design or construction.

3. As a PEPC engaged by the Contractor to design the Temporary works for a construction project, can I make use of the site personnel employed by Contractor to supervise the Temporary works designed by me?

PEPC shall be responsible for the supervision. The supervision can be carried out by the site personnel who have the necessary experience, qualification and registered with the BEM either as Professional Engineer, Graduate Engineer, Engineering Technologist or Inspector of Works (IOW). The Submitting Person (PEPC) shall be satisfied that the site personnel representing him to carry out supervision comply to the following criteria:

- a) Take instruction and direction from the PEPC; and
- b) Report back to the PEPC on the supervision works.
- c) Act on behalf of the PEPC on the supervision works.

As long as all the criteria above are fulfilled, employment by either the PEPC or the Client or Contractor then seconded to PEPC is acceptable. Therefore, the site personnel employed by the Contractor can represent the PEPC provided the site personnel fulfilled all the criteria above.

4. As the Submitting Person (PEPC) of the project, what shall I do to ensure the safety of temporary works by the Contractor?

The Submitting Person (PEPC) of the project can refer to Guidelines 001 "The Role and Responsibility of Professional Engineers for Temporary Works During Construction Stage", published by BEM to see what are the classification of the Temporary Works at site in terms of risk to the safety of worker and public.

The Submitting Person (PEPC) shall ensure that for Temporary works that could affect the safety & health of workers and public shall be designed, endorsed and supervised by the Professional Engineer with Practicing Certificate for Temporary Works (PETW) engaged by the Contractor. It is advisable that the Submitting Person (PEPC) includes this requirement during tender so the Contractor can price and fulfill these requirements and other relevant

regulations e.g. BOWEC to protect workers and public safety and health.

5. As a Submitting Person (PEPC) of a project in which the Contractor carrying out the construction works has already engaged a PEPC to design and endorse the Temporary Works (PETW as defined in BEM Guidelines 001: The Role and Responsibility of Professional Engineers for Temporary Works During Construction Stage), do I still have to check and supervise the Temporary Works?

If the contractor has appointed a Professional Engineer with Practicing Certificate (PETW) to design and supervise the Temporary works, then the responsibility of the safety of the Temporary Works including design, endorsement and supervision are solely under the PETW. As a Submitting Person (PEPC) of the project, your responsibility is only on the Permanent Works thus you do not need to check or supervise the Temporary Works.

#### LETTER OF RELEASE

1. An Engineer who is responsible for submission of drawings to the local authority resigns or retires half way through a project. Another engineer within the same Engineering Consultancy Practice (ECP) takes over. How does the BEM view this issue in the context of engineer taking over the works of another?

If it can be established that the 2<sup>nd</sup> Engineer is from the same Engineering Consultancy Practice as the 1<sup>st</sup> Engineer, then the issue of supplanting does not arise.

2. If a project has changed hands i.e. previous owner has sold to another company, is Letter of Release still required?

The Letter of Release is still applicable where the new project has linkage to the previous project, whether in terms of ownership or development details. You can refer to BEM Circular No. 008 "Procedure for a Registered Engineer or an Engineering Consultancy Practice taking over the work of another Registered Engineer or an Engineering Consultancy Practice". If in doubt, it is advisable to refer to the BEM for clarification.

3. In a design & build contract, the 1<sup>st</sup> Engineer is engaged by contractor to design & supervise. However, after the contract is awarded to the contractor, the contractor decides to engage a 2<sup>nd</sup> Engineer to carry out supervisory work, with no change made to the design works by the 1<sup>st</sup> Engineer.

Does the 2<sup>nd</sup> Engineer need a LOR for supervision work?

BEM Circular No. 004 "Supervision of Construction Works" clearly stipulates that the Submitting Engineer must design and supervise the project to completion.

If the 1st Engineer did not supervise the construction then he should not sign the CCC or equivalent.

If the 2<sup>nd</sup> Engineer wishes to take up the supervision work then he must obtain a LOR from the 1<sup>st</sup> Engineer and also take over as the Submitting Person regardless of whether the original design is changed or not.

4. In the event that the PEPC voluntarily discharges / releases himself during the project (i.e. not completed) and there is no 2<sup>nd</sup> Engineer to take over, will the Local Authority accept it as there will be no engineer responsible for the project?

A PEPC cannot simply relinquish his services unilaterally without the consent of the Local Authority. The PEPC must notify the Local Authority first. If there is no Qualified Person (Submitting Person) supervising construction, site work cannot proceed.

Note that improper termination of duties by the PEPC will affect public interest, and also subject him to legal recourse by the client on losses suffered amongst others.

5. A project or piece of property changes ownership and the new owner appoints his consulting engineer. If the previous owner has not settled the fees to his engineer (1st Engineer) and no physical work has commenced on site, has the newly appointed engineer (2nd Engineer) erred in accepting the appointment as he may not be aware of the previous appointment by the previous owner.

It is the duty of the 2<sup>nd</sup> Engineer to verify that there is no previous 1<sup>st</sup> Engineer on board. In the event that the 2<sup>nd</sup> Engineer was initially not aware of a previous appointment by the previous owner, but subsequently finds out that there was, then it is his duty to immediately inform his client and seek a LOR from the 1<sup>st</sup> Engineer.

Note that a Letter of Release is applicable where the new project has linkage to the previous project, whether in terms of ownership or development details.

You can refer to BEM Circular No. 008 "Procedure for a Registered Engineer or an Engineering Consultancy Practice taking over the work of another Registered Engineer or an Engineering Consultancy Practice". If in doubt, it is advisable to refer to the BEM for clarification.

6. When a project is partially completed and the owner terminates the 1<sup>st</sup> Engineer's services and appoints a 2<sup>nd</sup> Engineer to take over, will the 2<sup>nd</sup> Engineer be liable for the portion of works already partially completed under the 1<sup>st</sup> Engineer?

The "last man standing" rule applies. Whoever is the Submitting Person signing off the completion works will assume full liability even if some of the works had been carried out earlier before his involvement.

7. How does an Engineer respond when the Client's draft Memorandum of Agreement with the Engineer contains a clause which stipulates that the Engineer shall give a pre-signed Letter of Release or to forward a Letter of Release immediately upon receiving a termination letter from the Client?

The Engineer should inform the Client that the Law overrides all contractual provisions and he must follow BEM Circular No. 008 "Procedure for a Registered Engineer or an Engineering Consultancy Practice taking over the work of another Registered Engineer or an Engineering Consultancy Practice". Otherwise, he will be contravening the Law. He should then insist for such a clause to be deleted from his Agreement.

8. I am the 1<sup>st</sup> Engineer working on Project A as the ECP (Engineering Consultancy Practice) engaged to carry out engineering consultancy for C&S works. If the Client owes me fees, and I take adjudication proceedings under the Construction Industry Payment and Adjudication Act 2012 (CIPAA) to recover my fees, do I lose my position as 1<sup>st</sup> Engineer and the Client can engage another engineer (2<sup>nd</sup> Engineer) to take over my work without Letter of Release?

If an ECP (1st Engineer) serves a notice or adjudication defined in Section 5 of CIPAA to recover his fees BEFORE being terminated by the Client, the ECP has not lost his 1st Engineer status. The 2nd Engineer cannot take over from the 1st Engineer unless he obtained the Letter of Release from the 1st Engineer or he can follow the procedures stated in BEM Circular No. 008 "Procedure for a Registered Engineer or an Engineering Consultancy Practice taking over the work of another Registered Engineer or an Engineering Consultancy Practice".

However, if the 1<sup>st</sup> Engineer after being terminated, proceeds with any of the actions listed below after termination, then a Letter of Release is not required and the 2<sup>nd</sup> Engineer can take over the project:

- a) For an action in court, when an originating process defined in Order 5 of Rules of Court 2012 (ROC) is filed;
- b) For arbitration, when a notice of arbitration defined in Section 23 of Arbitration Act 2005 (AA) is served;
- c) For adjudication, when a notice of adjudication defined in Section 5 of Construction Industry Payment and Adjudication Act 2012 (CIPAA) is served.
- 9. I am the 1<sup>st</sup> Engineer working on a Project A as the ECP. The Client terminated my service and filed a lawsuit against me related to Project A. Can the Client engage another ECP (2<sup>nd</sup> Engineer) to just take over my work without the letter of release from me?

If the Client has terminated the 1<sup>st</sup> Engineer and/or filed a lawsuit against the 1<sup>st</sup> Engineer, it does not mean that 2<sup>nd</sup> Engineer can take over the work of the 1<sup>st</sup> Engineer without letter of release from the 1<sup>st</sup> Engineer. The 2<sup>nd</sup>Engineer before taking over any project, has to ensure that he does not violate Regulation 31 of the Registration of Engineers Regulations 1990 (Revised 2015). The 2<sup>nd</sup> Engineer can follow the BEM Circular No. 008 "Procedure for a Registered Engineer or an Engineering Consultancy Practice taking over the work of another Registered Engineer or an Engineering Consultancy Practice" for proper procedures to take over the project from the 1<sup>st</sup> Engineer.

- a) I am the 1<sup>st</sup> Engineer of Project A. During tender, the Contractor proposed an Alternative Design which is designed by another ECP or PEPC (2<sup>nd</sup> Engineer) engaged by the Contractor. I as the 1<sup>st</sup> Engineer after due engineering considerations, rejected the Alternative Design, can the Client upon awarding the project to the Contractor, allow the Alternative Design to be adopted and replace me with the 2<sup>nd</sup> Engineer which is the ECP or PEPC engaged by the Contractor?
  - b) Has the 2<sup>nd</sup> Engineer proposing the Alternative Design for the Contractor during tendering for the project violated Regulation 31 of the Registration of Engineers Regulations 1990 (Revised 2015) by directly or indirectly supplant or attempt to supplant or intervene another registered Engineer or ECP?
  - a) The Alternative Design proposed by the Contractor is not acceptable to you does not mean that the 2<sup>nd</sup>Engineer can just take over your project. The 2<sup>nd</sup> Engineer cannot take over from the 1<sup>st</sup> Engineer unless he obtained the Letter of Release from the 1<sup>st</sup> Engineer or he can follow the procedures stated in BEM Circular No. 008 "Procedure for a Registered Engineer or an Engineering Consultancy Practice taking over the work of another Registered Engineer or an Engineering Consultancy Practice".
  - b) As the 2<sup>nd</sup> Engineer was engaged by the Contractor to assist in the Tendering and to propose an Alternative Design to help the Contractor bid for the project, he has not violated Regulation 31. However, he has to comply to item (a) above if the Contractor is successful.
- 11. My ECP has been asked by the Contractor to carry out design for the Design & Build Tender with the understanding that upon successfully securing the project, my ECP will be employed to complete the design, endorsement and supervision of the project. Upon successfully securing the project, the Contractor decided not to engage my ECP due to reasons that the Client has asked him to use other ECP or for some other reasons. Does the other ECP need to get a letter of release from me?

An ECP can only lay claim to be the 1st Engineer provided that the ECP has been appointed which can mean a contract or agreement in writing between the ECP in which it is practising and the party that engages them (in this case the Contractor). BEM considers that there is a contract or agreement in writing if the contract or agreement is made in writing whether or not it is signed or if the contract or agreement is made by exchange of communication in writing (e.g. letters, emails or fax).

If the ECP is the 1<sup>st</sup> Engineer then the 2<sup>nd</sup> Engineer cannot take over from the 1<sup>st</sup> Engineer unless he obtains a Letter of Release from the 1<sup>st</sup> Engineer or he can follow the procedures stated in BEM Circular No. 008 "Procedure for a Registered Engineer or an Engineering Consultancy Practice taking over the work of another Registered Engineer or an Engineering Consultancy Practice".

#### **CERTIFICATE OF COMPLETION & COMPLIANCE**

1. What is Certificate of Completion and Compliance (CCC)?

It replaces the Certificate of Fitness for Occupation (CFO) issued by Local Authorities for projects approved prior to April 2007. Due to government policy to encourage self-regulation by professionals, the Street, Drainage and Building Act (Amendment) 2007 (Act A1286) was amended to stipulate that a Principal Submitting Person must sign a certificate called Certificate of Completion and Compliance(CCC) for him to confirm that the project for which he had obtained Building Plan approval from a Local Authority, is completed and has met all statutory requirements with regards to health and safety aspects and is ready to be occupied with all essential utilities services connected. The Principal Submitting Person can only be either a Professional Architect or a Professional Engineer with Practising Certificate (PEPC) depending on the type of building involved. CCC is issued to the Owner and its two (2) duplicate copies must be submitted to BEM (if the PSP is a PEPC and to BAM if the PSP is a Professional Architect) and the Local Authority within 14 days of issue together with all 21 supporting Form G's signed by the relevant Submitting Person of the respective Professions or Engineering Disciplines.

2. How should the PSP respond when a certain LA verbally instructs him not to issue Form F until they have conducted a site inspection, even though Forms G1 – G21 were all duly signed by all parties to enable him to issue Form F?

So long as all documents are in order, the PSP can issue the CCC. LAs cannot impose any additional conditions. As far as the LAs are concerned, they still retain their rights under the UBBL e.g. for site inspection during construction. LAs can report to the respective Boards on any conduct violation by the respective Submitting Persons. The objective of CCC on self-regulation must be maintained.

3. Original set of plans is submitted by Submitting Person (SP), Engineer A, but somehow the developer managed to obtain CCC signed by another SP, Engineer B. If the building then collapses, who should be responsible?

The Submitting Person (SP) signing the respective Form Gs in support of CCC is liable. The second engineer (Engineer B) who takes over as the SP is also be deemed to have taken over the all responsibilities and liability.

4. Contractor submits a counter proposal which is signed by his (contractor's) own Professional Engineer. However, upon completion, the original SP endorsed the Form G and CCC, who should be responsible?

The SP who signs the Form G is responsible.

5. Each LA/One Stop Centre (OSC) has its own procedures for CCC submission. If all the OSCs are very familiar with the submission there would be no problem.

Please take note that CCC is different from OSC. For CCC, there are Local Authorities (LAs) who are doing very well as they understand the CCC process. However, it is acknowledged that there will always be new staff and problems do arise. Please inform BEM/BAM of any discrepancies for BEM/BAM to refer to KPKT to resolve the problem.

Please note that BEM/BAM were not involved in the development of the OSC. This is under the jurisdiction of KPKT who has to deal with each State in charge of their respective LAs.

6. For a building or structure built for temporary use, then demolished or renovated for other use, is the procedure of CCC repeated for renovation?

Temporary structures only need a permit from the Local Authority. There is no need to issue

	a CCC. For internal changes not affecting type of use, there is no need for CCC.
7.	Is CCC required for renovation works?
	Where building plan submission is required (e.g. change of building facade), then CCC is required. As an example, for replacement with new lift including lift car without changes to the building (e.g. no additional floors) then no CCC is needed.
8.	For Form F's signed by Architects, are their corresponding Form G's submitted to BEM?
	Where the architect is the PSP, all Form F's and G's are submitted to the Board of Architects (BAM) including those Form G's signed by PEPCs. BEM works closely with BAM to conduct checks on the Form G's submitted to BAM.
9.	Can the PEPC employed by ECP, submit / sign the Form G's?
	Yes.
10.	Under CCC, who should sign for marine / fishery projects?
	"Marine structures & facilities" falls under the scope of Engineer to issue CCC. Refer to <a href="https://www.bem.org.my">www.bem.org.my</a> Appendices A, B and C, jointly issued by BAM and BEM.
11.	Form G's – with reference to Approved Plan (Infra Works)-construction done but with variation from Approved Plan. Do we need to submit as-built plan to reflect the change? What is the best way to solve this?
	Submit as-built plan to the Local Authority before or when issuing CCC.
12.	Contractor has split-up; who then can sign the Form G's on behalf of the contractor for CCC certification?
	The moment a particular work is completed, arrange for its Form G to be signed (& keep it). Do not wait until all works are completed. However, in unforeseen situations, e.g. demise of the contractor, then furnish proof and BEM will advise on a case by case basis.
13.	As stipulated in the UBBL, the submitting person who submits the drawings shall certify the completion of work. May I know why it is that in the case of lift, Form G11, the PEPC must certify the completion of lift work for which the PEPC did not submit the (manufacturer's) design?
	Under Form G11, the PE must certify as the SP. Note that the PEPC, as the consultant; designs, specifies and integrates the lift services with all other systems within the building. The Lift company's Competent engineer/person shall sign Form G11 as the trade contractor and is NOT PERMITTED to sign as the SP.
14.	For Form G18 on Street Lighting, are road side lighting which are situated within the compound of a building owner, required to be submitted to the Local Authority for approval as 'Street Lighting' even though they are not handed over to the LA?
	Road side lighting is defined as Street Lighting where the installations are to be subsequently handed over to the LA for maintenance. As such these Street Lighting plans are required to be submitted for approval by the LA. An example would be road side lighting within a residential housing development scheme.
	However, road side lighting which are installed within a property boundary, and which are not surrendered to the LA and are maintained by the property owners, are defined as Compound Lighting. Such Compound Lighting need not be submitted to the LA for approval and Form G18 shall be signed off as "Not Applicable" by the PSP for the issuance of CCC.

Examples would be road side lighting installed within the property boundary of an institutional, standalone residential, commercial or industrial development. Such lighting installations are deemed to be certified under Form G7 on Internal Electrical.

In exceptional cases when the road and drainage works within a property boundary are to be handed over to the LA but not the road side lighting (e.g. for petrol stations) then approval by the LA is required and Form G18 endorsement of such road side lighting is applicable.

15. Does the 'deemed approved rule' still apply for Local Authority or JKR/LLM for failing to reply after the Submitting Person has made the official request for the Letter of Support for a Form G, for the issuance of Form F (CCC)?

Yes, it is deemed approved if no reply is received by the Submitting Person after 14 days from the date of submission letter of the official request for the Letter of Support. The Letter of Support is then no longer necessary to be attached with the relevant Form G for the issuance of CCC. For this case, please attach a copy of your letter to the LA or JKR/LLM together with the respective Form G.

16. Taking over another engineer's works: Will the new engineer be responsible for the whole of the works even though the works are already ongoing?

As far as the law is concerned, the consultant as the SP is liable for the entire project and not any portion thereof. If the consultant disagrees or does not accept liability for works already done, then he should not take up the appointment.

17. After a project has been issued a CCC, is the LA responsible for its maintenance i.e. for roads, drains, slopes, culverts etc. Can they come back after 10 years and pin the failure on the consultant saying that the "consultant is responsible for life"?

The consultant remains liable for his design. If failure occurs, liability will be determined by the due process of law.

18. Certain LA requires PEPC to submit to them the Form F and only upon approval by them, the CCC can be issued. How do we overcome this?

CCC can only be issued by the PSP (when all requirements are met) and there is no need for prior submission of Form F to LA for clearance.

19. LA sometimes imposes new conditions to the developer before CCC can be issued such as to resurface neighbouring roads. Otherwise, the PEPC will be fined.

The CCC scheme is premised upon the PSP fully complying with the Building Plan (BP) approval. As such any additional requirements imposed by the LA after issuance of the BP should be separately sorted out (mutually) between the owner and the LA. Should a PEPC encounter such unresolved issues, please forward the details to BEM to take it up with KPKT for resolution.

20. Should the PSP be responsible to check that all Submitting Persons in his project are bona fide and qualified to sign the relevant Form Gs?

Yes, it is the responsibility of the PSP to ensure the CCC (Form F or F1) issued is legally valid and cannot be challenged in the Court of Law. Should any of the SPs certifying the various Form G's be found to be fraudulent or his professional practice was under suspension or de-registered at the material time of issuance, then the Form G certified by such a person is deemed invalid. This may then render the PSP's certification of Form F or F1, which is based on the validity of the supporting Form G's, to be invalid.

## 21. Can a Developer insist that the Submitting Person (SP) pre-sign a particular Form G (any of the Form G1 to 21) for the Developer's safe-keeping prior to actual completion and certification of the works?

No, each Form G shall only be signed upon completion and certification of the works by the Submitting Person (SP). Pre-signing a Form G when the work is NOT YET COMPLETED is unethical and violates the code of professional conduct.

#### 22. What are the mechanical ventilation systems covered under Form G10?

Form G10 is applicable only for mechanical ventilation of basement car parks to comply with a minimum of 6 air changes per hour ventilation rate. If there is no basement car park requiring mechanical ventilation, the PSP should then sign the Form G10 as 'Not Applicable'.

## 23. For a project with septic tank on a single factory lot where is no external sewerage mains connecting to a central sewerage plant, is it still necessary to sign on G15 Form (Sewerage Treatment Plan)

No. Form G15 is meant for central sewerage treatment plant serving several users. Septic tank in this case is treated as part of the sewerage reticulation and SP has to sign on G14 (sewerage reticulation) only.

#### **24.** Scenario:

Planner A obtained the Master *Kebenaran Merancang* (Master KM for 500 Acres) for a mixed development project. Consultant A, the appointed Master Infrastructure Consultant subsequently obtained earthworks approval from the Local Authority and proceeded to call for tender on behalf of the Developer to complete all 500 Acres of earthworks under the Master KM. Upon progressive completion of each scheduled phase of the earthworks and infrastructure, Consultant A has submitted the completed as-built drawings to the Developer.

As the Developer proceeds with the development, Local *Kebenaran Merancang* (Local KM) are submitted to obtain approval for each Plot of land (ranging from 10 to 100 acres per plot). For Plot A which consists of 50 acres, the Developer appointed Architect B as the SO and Consultant B as the local infrastructure consultant to develop double storey houses.

### a) Is Consultant B, the appointed Consultant for Plot A, required to submit for Earthworks Approval?

**YES**. Plot A involves a new Local KM and a new Earthworks approval is required under the **Street, Drainage & Building Act, 70A (2)**. Extract from the Act "Where the earthworks are to be commenced or carried out for the purpose of the construction of any building, street, drain, sewer, or embankment, or for the laying of any cable or pipe, or for the purpose of any other construction or work whatsoever, the plans and specifications relating to such construction or work required to be submitted under this Act or any by-laws made thereunder shall be submitted to the Local Authority at the same time as the plans and specifications in respect of the earthworks."

#### b) Which Consultant should sign Form G1 for Plot A for issuance of CCC?

As the Submitting Person for the new Earthworks approval, **Consultant B** shall sign Form G1 and shall also supervise the construction of the local infrastructure and earthworks for Plot A. Consultant B is advised to obtain from the Developer, a copy of the Master Earthworks Approval and Consultant A's letter certifying Completion of Earthworks at Plot A together with the as-built drawings for his record.

#### c) Can Consultant B, the appointed Consultant for Plot A, deem that he is only

appointed for the building works of Plot A (Double storey houses), and refuse to sign Form G1 claiming there will only be minor adjustment of earthworks (trimming and footings to be carried out)?

**NO.** Consultant B, as the appointed Consultant for the building development at Plot A under a separate new Local KM approval, shall be the Submitting Person (SP) for the Earthworks which is clearly defined in the Street, Drainage & Building Act, 70A (2) and Local Infrastructure of Plot A, and shall sign Form G1 upon completion of works at site.

25. I am the Submitting Person (SP) for the earthworks of a project. The earthworks was completed three (3) months ago and upon my satisfactory inspection, I signed off Form G1. However, the Principal Submitting Person (PSP) informs me that I should leave the date blank. I wish to check with BEM as to whether I have to insert the date when I sign any CCC Form Gs?

The SP or PSP when signing off CCC Forms (F, F1 or G) must insert the date to make it complete. This requirement is clearly stated in the Guide to Filling up CCC Forms. Note that Form Gs can only be signed off (and dated) when the related work is completed. Please refer to other related FAQs for more elaboration.

26. I am the SP (PEPC E) for an ECP (Consultant E) appointed as consultant for a building to be sited on a completed earthworks platform. The proposed building consists of a semi-basement and a 5 storey tower. The foundation system to be adopted will be a piling system. The earthworks platform was completed many years ago and the Form G1 was signed by a previous SP (Consultant A). As the consultant for the proposed building, am I required to take over the as-built earthworks and sign a new Form G1 after the project is completed?

**YES.** As your design involves excavation of a semi-basement, you shall to take over the responsibility for the earthworks from the previous SP. You are required re-submit for earthworks approval and sign off Form G1 for earthworks upon completion of the earthworks at site. Note that even if there is no semi-basement design, so long as you need to carry out changes to the existing earthworks (e.g. excavation, trimming, filling, etc.), you are required to take over the earthworks responsibility.

Only if the proposed changes are indeed very minor, you may apply for exemption from the Local Authority for the need to re-submit for earthworks approval. If re-submission of earthworks is exempted by the Local Authority, notify the PSP to sign off Form G1 as NOT APPLICABLE, and you should keep a copy of the Form G1 signed by the previous consultant as record.

27. Does a utility building such as a sub- station, require CCC?

No, if the building is normally not occupied. Yes, if it is part of a development that requires CCC.

28. For a housing development project involving construction of a bridge, does the bridge require a separate CCC or can it be part of Road & Drain under Form G17?

If the bridge is submitted together with the Road & Drain plan to the LA, then it forms part of Road & Drain works under Form G17.

29. If an Owner insists that his staff supervise the construction works, what can the PEPC do?

Under Bylaw 5 of UBBL, it is the duty of the SP who designs the works to supervise or to delegate someone to supervise under his care. The SP still carries the responsibility and accountability.

Where an Owner insists on using his staff to supervise, the SP needs to verify that the staff is a BEM registered IOW and shall report to the SP to fulfil the requirements of Bylaw 5. 30. For a building completed half way when a 2nd SP takes over, will the 2nd SP be responsible for the construction works completed before his takeover, such as foundation works? The 2nd SP who takes over a half completed building from another SP, shall be fully responsible for any work previously completed. Refer to clause 2.2.2 of BEM Circular 001(2016). 31. The Water Department had approved plans submitted for a housing project. However, when the works are completed, water is not yet available. Can the SP sign Form G13 for external water supply? Such a scenario is not uncommon. If the SP has obtained approval from the Water Authority for water supply during the Planning stage and subsequent Building Plan stage, but on completion, water supply is still not available, then it is deemed water is still not readily available for connection. However, if the Water Authority agrees to provide temporary water supply, then the SP may sign off Form G13 for external water supply. Note that the water authority includes any water supply concessionaire. 32. Is rain harvesting system part of the building works (Form G12) or internal cold water plumbing (Form G5) especially if it is a simple tank collection system from a downpipe for garage use without plumbing? No. Rain harvesting system is not part of Form G5. Yes, rain harvesting system is part of the building works (Form G12) 33. Is lightning arrester part of the internal electrical system (G7)? Yes. 34. The LA imposes a condition to expand an existing road outside an apartment scheme for KM approval. However, when all the works are completed, the short length of road upgrading cannot be carried out because the LA is not able to get TNB to relocate the street lights. What can be done in order not to hold up the issuance of CCC and thus VP? There are a few cases where the LA impose conditions on improvement of infrastructure work outside the boundary of development area such as widening the road and line the earth storm water channel. Under such circumstances, the SP should advise the client /developer to request that the LA to instead, impose ISF (Improvement Service Fund) as provided under the Street, Drainage and Building Act (Act 133) so as to avoid the issue as mentioned above. However, if ISF was not imposed, and all other works are completed but the site of the infra improvement still cannot be handed over to the developer to work on (i.e. through no fault of the developer), then the developer should appeal to the LA to pay a sum for the construction works in lieu, in order not to hold up the approval of R&D for the purpose of Form G17 (R&D) submission. 35. Certain Local Authorities (LA) impose condition that before CCC can be issued. it has to be approved by OSC first. With this CCC online submission policy, do we still need to get their clearance? No. Please be reminded that even with the manual CCC submission process, there is no requirement for pre-OSC approval before issuance of CCC. Furthermore, this online system will automatically generate the CCC, when all inputs are keyed in by the PSP.

36.	Certain LAs require house extension to be issued with CCC. Can it be done through this online submission system?
	Yes
37.	What happens if a SP's registration has not been renewed and because of that, the PSP cannot log into the system although that SP had previously signed the Form G1 when he was still a valid PEPC?
	It is advisable that the PEPC should maintain his registration until all obligations to sign Form Gs are done. Any other similar cases may need to be handled on a case by case basis. The PSP will need to contact BEM for assistance.
38.	If a SP does not have an ECP and the PSP cannot key in such info, what should the PSP do?
	The REA stipulates that a SP can only provide professional engineering services under an ECP. The PSP cannot deploy this SP for his project if he is not registered as an ECP and he has to either change the SP or ask the SP to be registered as an ECP provided he can wait.
39.	Are the LAs aware of BEM's online submission system for CCC?
	BEM has held a few rounds of discussion with JKT/KPKT on BEM's online submission system. JKT is fully aware on the implementation date of this online submission system. Note that JKT is the channel to inform all LAs.
	This online submission system was also reported to MOSTI under their Emerging Technology Cluster as part of the National Digital Economy Master plan.
40.	With regards to the requirement for submitting carbon copy each to BEM and LA within 14 after issuance of CCC, does this still apply for the online submission system?
	Yes. A downloaded and printed hardcopy (original) is to be submitted to the Owner and a copy forwarded to the LA within 14 days. However, there is no necessity to forward a copy to BEM since this document is already in the BEM online system.
41.	For the deeming clause of 14 days for R&D or lift inspection approval, has this being incorporated into this online submission system or do we need to submit it manually?
	The relevant documents must still be manually uploaded on the online system as evidence. No submission of hardcopies to any authority is required.
42.	For a project that a PEPC designs on pro bono basis, such as an open steel shed for a temple or mosque, can CCC be manually issued as the PEPC does not have an ECP and is not doing business?
	If the PEPC is practising under an ECP, then he should submit through the online system. However, if the PEPC is not practising under an ECP, then he may submit manually by consulting BEM to reactivate the (phased out) manual system for the particular case.
43.	I understand that OSC 3.0 Plus recently introduced by KPKT listed process 6 involving the issuance of CCC as an online system. Is there any correlation between the KPKT system and BEM's?

BEM has had detail discussions with JKT/KPKT. Under the OSC 3.0 Plus, CCC is at process 6. The development process will still go through the OSC 3.0 Plus until process 5. For projects for which the PEPC is PSP, the PSP can opt to use BEM online submission system which is an independent system of submission. 44. For an abandoned project which was recently revived, some of the Form Gs were previously signed off for completed works. However, the respective SPs are no more practising or have passed away, how would this online submission system cater for this? This will need to be dealt with on a case to case basis as more information is required to be verified. The PSP needs to refer to BEM with all the necessary documents and evidence. 45. For a project outside the LA area, can this CCC online submission work? CCC online submission is designed for area under the jurisdiction of a LA. However, for areas outside the LA area and if the District Officer office requests the nearest LA to assist to process the development plan, then this CCC online system shall also apply.