

## PPIR: A program for professional performance

### THE PPIR PROTOCOL FOR PERFORMANCE (Revision 3, November 2016)

#### Preamble

**This Protocol documents the essentials of performance for Professional Engineers acting in a professional capacity.**

The objectives of this Protocol are to:

- a) inform and guide the Professional Engineer acting individually or as a team member on the essentials of performance in considering and undertaking an Engineering Task;
- b) inform and guide all Relevant Parties and Other Stakeholders on the role and obligations of Professional Engineers and the effective use of their services; and
- c) define the essentials of performance against which the duty and standard of care of Professional Engineers can be assessed objectively in prospect and in retrospect.

It is, however, well understood that the best efforts of a professional engineer may not reasonably be able to achieve the most desirable outcome in a particular circumstance.

#### 1. Relevant Parties and Other Stakeholders

The Professional Engineer should develop a clear understanding of the Relevant Parties to and Other Stakeholders in the Engineering Task and the relationships between them.

Accordingly, a Professional Engineer should:

- a) identify the Responsible Person to whom the Professional Engineer is or will be responsible in performing the Engineering Task and the entity that person is representing;
- b) identify other person(s) and entities for whom the Professional Engineer is responsible when performing the Engineering Task;
- c) take reasonable steps to:
  - i) identify other Relevant Parties and Other Stakeholders; and
  - ii) map the relationships between them for the purposes of the Engineering Task, considering both the individual persons and the entities involved; and
  - iii) assess their individual interests and expectations and the likely impact of these interests and expectations on the Engineering Task;
- d) consult with the Responsible Person on how this impact is to be addressed; and
- e) review the above issues as appropriate throughout the Engineering Task and respond accordingly.

#### 2. The Engineering Task

The Professional Engineer should consult and agree with the Responsible Person the objectives and extent of the Engineering Task.

Accordingly, a Professional Engineer should:

- a) assess the objectives, scope, extent, context and interfaces of the Engineering Task, exploring particularly the relevant expectations and the desired outcomes of the Responsible Person;

- b) consider and discuss with the Responsible Person alternative methods of achieving the objectives, scope and extent of the Engineering Task;
- c) define and document the Engineering Task agreed with the Responsible Person and the exclusions therefrom;
- d) if the Engineering Task so defined cannot be agreed with the Responsible Person, consider whether it is appropriate to undertake it;
- e) ensure that any documentation of the Engineering Task is consistent with the definition agreed with the Responsible Person; and
- f) review the above issues as appropriate throughout the Engineering Task and respond accordingly.

#### 3. Competence to Act

The Professional Engineer should assess and apply the competencies and resources appropriate to the Engineering Task.

Accordingly, a Professional Engineer should:

- a) assess and respond to the range and availability of professional knowledge, competencies and resources required to undertake the Engineering Task and assess any material uncertainties in these respects;
- b) reach agreement with the Responsible Person as to how these uncertainties should be handled or failing such agreement consider whether it is appropriate to act;
- c) not otherwise profess a capacity to undertake the Engineering Task if any part of the required professional knowledge, competencies and resources is lacking or not available at all the relevant times; and
- d) review the above issues as appropriate throughout the Engineering Task and respond accordingly.

#### 4. Statutory Requirements and Public Interest

The Professional Engineer should respond to relevant statutory requirements and public interest issues.

Accordingly, a Professional Engineer should discuss and agree with the Responsible Person the appropriate response to:

- a) judge-made and enacted law (including regulations and ordinances) affecting the legality, carrying out and consequences of the Engineering Task, including by seeking appropriate legal advice where the need for that is reasonably indicated;
- b) safety, environmental, public health and other public interest issues that may be relevant to the Engineering Task;
- c) unexpected matters that emerge in the course of the Engineering Task; and
- d) ways in which these issues may impact upon or change the definition of the Engineering Task or the proposed approach to management of the Engineering Task.

The Professional Engineer should review the above issues as appropriate throughout the Engineering Task and respond accordingly.

## 5. Risk Management

The Professional Engineer should develop and operate within a recognised risk management approach that meets the needs of the Engineering Task.

Accordingly, a Professional Engineer should:

- a) Identify and assess the realistic risks related to the Engineering Task as a whole and where appropriate, within and between its elements;
- b) develop and operate within an appropriately documented approach to manage the identified risks in the Engineering Task;
- c) develop and operate within an appropriately documented approach to respond to and manage the consequences of unidentified risks in the Engineering Task;
- d) in accepting or allocating accountability for managing and bearing risk, take steps to confirm that such risk accountability lies with the parties best able to respond to that accountability and that those parties have the capacity and willingness to accept that accountability;
- e) record, track, monitor and report upon in a timely manner, all material risk management issues and actions throughout the Engineering Task;
- f) communicate and consult with the relevant persons on significant issues arising in (e) above and the consequent implications; and
- g) review the above issues as appropriate throughout the Engineering Task and respond accordingly.

## 6. Engineering Innovation

The Professional Engineer should seek to use engineering innovation to enhance the outcomes of the Engineering Task.

Accordingly, a Professional Engineer should:

- a) assess whether Engineering Innovation is fundamental or beneficial to the Engineering Task, and evaluate the potential benefits;
- b) assess the skills, knowledge and resources issues introduced by Engineering Innovation;
- c) assess the appropriate action required in regard to intellectual property issues introduced by Engineering Innovation;
- d) evaluate the impact of Engineering Innovation on risk management for the Engineering Task; and
- e) agree with the Responsible Person the approach being taken to use Engineering Innovation effectively; and
- f) review the above issues as appropriate throughout the Engineering Task and respond accordingly.

## 7. Engineering Task Management

The Professional Engineer should apply appropriate engineering task management protocols and related standards in carrying out and accomplishing the Engineering Task.

Accordingly, a Professional Engineer should:

- a) adopt and apply a task management system, quality assurance system and change management process appropriate to the Engineering Task;
- b) arrange an effective procurement program governing the supply of materials and services by third parties to the Engineering Task;
- c) arrange a systematic approach to timely disclosure to relevant persons and resolution of technical and commercial issues arising in the course of the Engineering Task;
- d) identify and respond to potential conflicts of interest;

- e) assess and maintain the transparency and integrity of all transactions involved in performing the Engineering Task in the context of the Professional Engineer's understanding of prevailing community and professional standards as agreed with the Responsible Person;
- f) log material events and decisions throughout the Engineering Task;
- g) develop and maintain an effective system of timely communication between all those directly involved in performing the Engineering Task;
- h) review the above issues as appropriate throughout the Engineering Task and respond accordingly; and
- i) upon completion of the Engineering Task assess and document the performance and outcomes achieved in delivering the Engineering Task.

## 8. Contractual Framework

The Professional Engineer should ensure that they understand their obligations under any Contract and the implications of the Contract on the application of this Protocol.

Accordingly, a Professional Engineer should:

- a) understand those aspects of the Contract that relate to the Engineering Task;
- b) where practicable, review the provisions of the Contract to ascertain whether the provisions of the Contract are consistent with this Protocol;
- c) where the Contract contains terms that interfere with the application of this Protocol negotiate with the Responsible Person;
- d) in relation to any third party arrangements or contracts relevant to the Engineering Task identify and seek to resolve any issues in conflict with this Protocol; and
- e) consider whether it is appropriate to act if agreement cannot be reached on any of the above.

## Definitions

**"Contract"** means the legally binding contract with the client which includes the obligation to that client to carry out the Engineering Task.

**"Engineering Task"** means work done by a Professional Engineer in the ordinary course of professional engineering practice as applied to the assignment in question.

**"Engineering Innovation"** means the application of new scientific or technological knowledge, or the application of existing scientific or technological knowledge in new ways, in a commercial context.

**"Professional Engineer"** means a person holding a minimum four-year engineering qualification which is accredited under the provisions of the Washington Accord.

**"Relevant Party"** means a party that has a direct commercial interest in the Engineering Task, be that contractual or otherwise.

**"Other Stakeholder"** means a person or entity other than a Relevant Party that the Professional Engineer reasonably believes has or may have a material interest in the Engineering Task.

**"Responsible Person"** means the individual to whom the Professional Engineer is directly or ultimately accountable in carrying out the Engineering Task, being either the leader of the in-house team undertaking the Engineering Task, or where applicable the person representing the client of the Engineering Task.

### CAUTION

Care should be taken in incorporating all or any of this Protocol as terms of a contract to avoid internal contradictions or unintended modifications of the allocation of professional or contractual responsibilities.



# Guidelines for using the PPIR Protocol for Performance

The following are general guidelines for using the PPIR Protocol for Performance ("this Protocol"), addressing the practicalities in its application and some of the limitations that may apply in certain situations.

## 1. For whom is this Protocol written?

The primary role of this Protocol is to inform and guide individual Professional Engineers on their professional approach and behaviour when they are acting in their professional capacity and are responsible for or part of a team responsible for setting up and carrying out any Engineering Task. This focus on the Professional Engineer as an individual applies whether the Professional Engineer is self-employed or is an employee.

This Protocol is supported by a business-to-business protocol, the PPIR Protocol for Engagement, which can be used to guide and influence the internal policies and procedures of companies and non-corporate entities, to guide business-to-business purchasing and selling of engineering products and services, and to ensure that Professional Engineers are supported in performing their task in accordance with this Protocol.

## 2. Does this Protocol replace codes of ethics or competency standards?

No it does not.

This Protocol is complementary to, and supportive of, the engineering profession's ethical codes and competency standards. This Protocol defines performance – how the task-specific work should be carried out and accomplished, and how task-specific ethical and competency issues should be addressed, in terms that are objectively determinable.

## 3. How does this Protocol apply within an engineering team?

This Protocol applies to the individual Professional Engineer acting either as leader of an engineering team or as a member of such a team, but in different ways.

If the Professional Engineer is leader of an engineering team and so is in charge of setting up and carrying out the Engineering Task, then as the Responsible Person, s/he is personally accountable for the application of this Protocol by the team as a whole, whether the Engineering Task is for an external or internal client.

If the Professional Engineer is a member (but not leader) of such an engineering team, then that team member as an individual is accountable in the Engineering Task to the Responsible Person, who is the leader of the team, and his/her professional duty in terms of this Protocol is limited to:

- Bringing to the attention of the leader of the team as Responsible Person the provisions and requirements of this Protocol, their applicability to the Engineering Task and the benefits of the team responding as a whole to these provisions and requirements; and
- Responding effectively to the leadership of the Professional Engineer who, as leader of the team, is the Responsible Person.

## 4. What if the team leader is not a Professional Engineer?

If a Professional Engineer is part of an engineering team and the team leader as Responsible Person is not a Professional Engineer then the Professional Engineer as a team member has a professional duty to:

- Bring to the attention of the leader of the team as the Responsible Person the provisions and requirements of this Protocol, their applicability to the Engineering Task and the benefits of the team responding as a whole to these provisions and requirements; and
- Respond effectively to the leadership of the Responsible Person; but
- If asked or directed by the responsible person to act contrary to the provisions and requirements of this Protocol, consider whether to continue to act as part of that team.

## 5. Are there limitations to how this Protocol may be applied?

In some projects or assignments, or some special situations, the formal application of this Protocol may necessarily be limited. For example, this may be the case if the Engineering Task:

- is quite small or very limited in scope;
- is wholly repetitive and the established corporate routine protocols for carrying it out have already been based on this Protocol;
- does not present some of the issues set out in this Protocol.

The Professional Engineer has professional responsibility to make an assessment of the limited applicability of this Protocol in any particular situation, and then if it becomes necessary to do so, to justify the reasonableness of this decision.

## 6. In what ways would a corporate entity apply this Protocol?

An organisation or corporate entity in the public or private sector that is a client or supplier of engineering products or services, or employs or manages one or more Professional Engineers, may choose to use this Protocol to inform and guide itself on the role and obligations of Professional Engineers and on the effective use of Professional Engineering services.

This might be put into effect in one or more ways, such as:

- reflecting the provisions and requirements of this Protocol in the relevant organisation's policies and procedures;
- ensuring that the Professional Engineering employees of the organisation are aware that it is an official policy that they are encouraged to observe the provisions and requirements of this Protocol;
- making the provisions and requirements of this Protocol an integral part of the organisation's purchasing or tendering processes and documentation; and
- featuring PPIR Protocol compliance in descriptions of the organisation's engineering products or services.

Where an organisation chooses not to endorse and adopt profession-led standards of ethics, competency and professional performance, or not to observe some provisions or requirements, the Professional Engineer employed by that organisation may be placed in a difficult situation. Accordingly, that individual will need to assess if there is any conflict between his/her obligations as an individual Professional Engineer and his/her personal commitment as an employee of the organisation, and make a personal decision as to how to respond.

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