

Competence and Commitment report – past examples

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Example 1	<p>I noticed there was a lack of knowledge sharing between younger engineers in my company and some people were missing out on help to become chartered.</p> <p>My idea was to set up a "Developing Engineers Forum" to tackle these problems. I got several like minded people together and we set three aims for the group. To promote focus on professional and career development, increase members' networks of contacts and promote engineering across the company and further afield.</p> <p>The forum has been a big success with our own SharePoint site to share announcements and discussions. I lead a working group who hold regular events which include Developing Engineer presentations on projects and experiences, site visits and social events.</p> <p>The most challenging event was a chartership workshop. I sought approval and funding to hold the event and arranged for representatives from 6 engineering institutions – ICE, IChemE, IET, IMechE, CIWEM and IWO and a representative from the Engineering Council to attend. Attendees could find out which institution was right for them and learn more about the benefits of being a member, professional qualifications, CPD and becoming a mentor. It was a big success with over 80 people attending.</p> <p>I have given technical advice to more junior members of my team and have supervised the work of a graduate engineer on the project described in question Aiii.</p> <p>I have undertaken a range of activities with school children including careers fairs and mock interviews and I am registered as a Science and Engineering Ambassador with STEMNET which provides opportunities to encourage young people to choose careers in science, technology, engineering and maths. I acted as a mentor for a team of school children over a 10 week design project giving them technical advice and encouragement.</p>
Example 2	<p>As a process engineer with an EPC contractor, I supervised the development work undertaken by a vacation student on bespoke software for costing subsea field developments. The project which lasted for three months was financed by a major oil company. Specifically, I provided technical guidance to the student on engineering and process functionality and approved all changes to the software before publication.</p> <p>During my PhD, I regularly led weekly undergraduate problem solving lectures and laboratory sessions (for modules including, but not limited to, fluid mechanics, process engineering fundamentals and applied science modules). I was responsible for a class of up to 30 students. As part of my responsibilities, I formulated chemical engineering class problems, developed mark schemes and assessed student coursework.</p>

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Example 3

- a) I am a specialist EHS Advisor/Safety Engineer position, which is different from other EHS Advisors. I support Capital Projects and the site Engineering Technical Services (ETS) group by providing them specialist EHS advice and lead the EHS aspects of each project. I lead/ chair all HAZOPs for all new projects and alterations to existing projects, and provide EHS expertise support at the HAZOP meetings. I advise project managers on the EHS requirements needed for completing their projects safely throughout the project lifecycle, starting from the design phase. Example of project was a new micronisation process plant.
- b) I am responsible for leading incident investigations, for example, following a site incident on a fluid bed dryer, an Health and Safety Executive (HSE) action was to identify all safety critical systems on site and carry out a review on them.
- c) I led a study where all the site's critical safety systems were identified and assessed using a quick method (risk graph), which led to identifying 16 systems needing further assessment. I led the work, which has involved input from production engineers, an automation engineer and other relevant staff. Further assessment using the Layer of Protection Analysis (LOPA) method was carried out by myself and other relevant staff. An example of one of the systems was the nitrogen detection system in a production area. An initial analysis led to a Safety Integrity Level (SIL) of 2 when senior managers were the initial team that determined the SIL using the risk graph method, but when a production engineer was used, the SIL reduced to 1 using the risk graph method and then 0 using the LOPA method. This piece of work has helped to establish the safety integrity of our safety critical equipment on site.
- d) I coordinated activities in order to prepare for a process safety audit for our Engineering department by an external company. The company was asked to fill a questionnaire. A team of 4 (the engineering group director, a technical director, the EHS manager and myself) met to discuss the questionnaire and filled out the relevant areas. We then had a teleconference with the external auditors and I provided them with our responses. I accompanied the auditors around site on the 4 day audit to support and provide them with relevant information and staff. Some of the regulations they audited were: pressure systems, work equipment, hazardous areas (DSEAR) and lifting equipment.
- e) I led an investigation for an overpressurisation incident. I arranged with project team members to help with investigating the incident during a chemical process. I pulled together an investigation team promptly, organised a mini HAZOP where key actions were established in order to prevent future occurrences of the incident. Actions have now been put in place to prevent future occurrences.

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Example 4

I have managed groups of contractors during installation works, including reviewing and feeding back to them both directly and via their own company management on their performance. I have coached site supervisors in the expectations of both myself and my company where their own leadership and direction to their own team has been lacking - such as when engineers and fitters have required constant input and supervision from myself or my colleagues rather than the supplier's own team. I have also liaised with managing directors of suppliers and installation contractors to feed back where targets have been achieved, or discuss preventative actions required from major incidents such as safety system transgressions.

I have led weekly progress reviews during design and build phases, and daily reviews during installation phases, with contractors and production teams to ensure work is effectively co-ordinated around operational requirements.

I have had line management responsibility for production teams (including operators, manufacturing technicians, and process technicians) including objective setting, performance reviews, absence management, and disciplinaries.

I represented my department during a review of our site's performance review process. This included roll-out of the new requirements and responsibilities in order for the operator teams to compile their own evidence of good performance, thereby improving ownership of the KPIs and objectives that they had been set. I took forward recommendations from my colleagues to the reviews, representing their views even when they did not match my own. I completed several case study evaluations of "good" and "bad" employees under old and new systems to show my colleagues how the new system could have a positive impact on their teams and also how it could more obviously show weaknesses of certain individuals, allowing more targeted development.

I have assessed applicants for both production operator/technician roles and the company's formal graduate programme through CV review, formal interview and assessment centres.