### REQUIRED ATTRIBUTES FOR SUPERVISING ENGINEERS

<table>
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<th>Attribute Group</th>
<th>Required skill sets</th>
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| **1. Dam and reservoirs engineering knowledge**      | A. Demonstrate an understanding of issues affecting the safety of dams and reservoirs.  
B. Demonstrate an understanding of monitoring and surveillance practices that may be adopted to ensure ongoing safety of dams and reservoirs.  
C. Demonstrate an appreciation of the characteristics of all reservoirs to which current reservoirs legislation applies.  
D. Be able to provide appropriate technical advice and give directions and written recommendations, where appropriate, to Undertakers and Reservoir Managers.  
E. Demonstrate practical experience in dam and reservoir engineering in the UK. Recent experience must include one or more of the following activities: dam or reservoir design, supervision of construction or refurbishment or improvement works, and operation of reservoirs. |
| **2. Reservoirs legislation**                        | A. Demonstrate appropriate knowledge of the primary legislation in all territories in which the applicant wishes to practice.  
B. Demonstrate appropriate knowledge of the subordinate legislation that supports the primary legislation in those territories.                                                                                                                                                                           |
| **3. Observational skills**                          | A. Be able to recognise symptoms that may give advance warning of a developing structural problem within a dam and its associated works.  
B. Be able to assemble evidence to form the basis for sound engineering decisions.  
C. Be able to search out and monitor changes in the condition of a reservoir that might affect its safety.                                                                                                                                                                                                 |
| **4. Independent judgment**                          | A. Be able to identify and recognise the limits of personal knowledge and skills.  
B. Be able to identify and assess critical indicators in connection with the ongoing safe storage of water in a reservoir  
C. Be able to review information critically and to take decisions on actions necessary to ensure ongoing safety.                                                                                                                                                                                   |
| **5. Maturity of judgment**                          | A. Be able to judge the frequency at which visits should be made to reservoirs under their supervision.  
B. Be able to decide when to escalate a technical issue, such as seeking advice from an Inspecting Engineer or calling for a statutory inspection to be brought forward.  
C. Demonstrate an understanding as to when to make Directions or written recommendations to Undertakers and Reservoir Managers.                                                                                                                                                                       |
| **6. Leadership & responsibility**                   | A. Be able to guide the Undertaker or Reservoir Manager on actions to be taken during a reservoir safety incident pending the arrival of an Inspecting Engineer.                                                                                                                                                                                                 |
| **7. Health & safety hazards & risk management**     | A. Demonstrate appropriate knowledge and application of legislation, hazards and safe systems of work relating to the operation and maintenance of reservoirs.  
B. Be able to produce appropriate risk assessments and method statements for all reservoir activities.                                                                                                                                                                                                 |
| **8. Interpersonal skills & communication**          | A. Be able to communicate well with Undertakers, Managers and non-technical staff involved in the management of reservoir safety.  
B. Be able to discuss ideas and technical issues affecting reservoir safety with other engineers and specialists.  
C. Be able to prepare written documents in a concise and succinct manner such that technical issues may be communicated effectively.  
D. Be able to explain the technical purpose and the reason why Directions or other advice has been recommended.                                                                                                                                                                                                     |
| **9. Professional standards**                        | A. Be able to demonstrate that the applicant has kept up to date with advances in dam engineering and surveillance practice.  
B. Be able to demonstrate that the applicant has kept up to date with latest guidance in each region to which the application refers.  
C. Be able to demonstrate regular engagement in dams and reservoirs related CPD activities.                                                                                                                                                                                                 |
| **10. Generic**                                      | A. Incorporated Engineer\(^1\).                                                                                                                                                                                                                                                                                                                                 |

\(^1\) (or equivalent status)