REQUIRED ATTRIBUTES FOR SUPERVISING ENGINEERS

Attribute Group	Required skill sets
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)