



**APPLICATION FORM FOR APPROVAL AS APPROVED PROFESSIONAL PERSON FOR A SPECIFIC TASK(S) AT A DAM AS REQUIRED BY REGULATION 45 OF THE DAM SAFETY REGULATIONS (GN R.139 OF 24 FEBRUARY 2012) READ WITH SECTIONS 117, 119 &123 OF THE NATIONAL WATER ACT, 1998 (ACT 36 OF 1998)**

**GENERAL PARTICULARS**

Please complete the form in block letters in **black** ink or type in the particulars and send it to the Directorate: Dam Safety Regulation, Department of Water and Sanitation, Private Bag X313, Pretoria, 0001, or E-mail [damsafety@dws.gov.za](mailto:damsafety@dws.gov.za) . After this form has been submitted, the Engineering Council of South Africa (ECSA) will be consulted and a decision taken. This process may last up to 3 months.

**GENERAL PARTICULARS OF APPLICANT**

Surname: \_\_\_\_\_ First Names: \_\_\_\_\_  
 Identity number: \_\_\_\_\_ ECSA registration number: \_\_\_\_\_  
 Cell: \_\_\_\_\_ E-mail address: \_\_\_\_\_  
 Tel. (W): \_\_\_\_\_ Tel. (H): \_\_\_\_\_  
 Postal address: \_\_\_\_\_  
 Nationality: \_\_\_\_\_ Postal Code: \_\_\_\_\_  
 Present employer: \_\_\_\_\_

**PARTICULARS OF CLIENT (OWNER OF DAM OR PERSON IN CONTROL)**

Surname: \_\_\_\_\_ First names: \_\_\_\_\_  
 E-mail address: \_\_\_\_\_ Cell: \_\_\_\_\_  
 Tel. (W): \_\_\_\_\_ Tel. (H): \_\_\_\_\_  
 Postal address: \_\_\_\_\_  
 Organisation: \_\_\_\_\_ Postal Code: \_\_\_\_\_

**THE TASK FOR WHICH APPROVAL IS REQUIRED** (Indicate with an "X" for which task approval is desired in terms of The Dam Safety Regulations (GN R.139 of 24 February 2012) read with Chapter 12 of the National Water Act (Act 36 of 1998)).

	<b>Task</b>	<b>Regulation</b>	
1	Design the proposed project and draw up plans and specifications.	10(a) & 16(1)	
2	Monitor construction / Quality control (preferably full time on site for large dams).	23(2)(d)(i)	
3	Alternate: Monitor construction for Cat III dams.		
4	Compile an operation and maintenance manual for a new dam.	25(1)(c)& 30	
5	Compile an emergency preparedness plan for a new dam.	25(1)(d)& 30	
6	Dam safety evaluation.	35(2)&(3)	
7	Supervise maintenance / betterment works.	32(1)(d)	
8	Further studies or investigations.	32(1)(e)	
9	Design the alterations for decommissioning.	38(2)&(3)	
10	Other (specify)		

**PARTICULARS OF THE DAM**

Dam Name: \_\_\_\_\_ Nearest town: \_\_\_\_\_  
 Date classified: \_\_\_\_\_ Height (m): \_\_\_\_\_ Category: \_\_\_\_\_  
 Hazard potential: \_\_\_\_\_ Departmental reference number 12/2/ \_\_\_\_\_  
 River/water course: \_\_\_\_\_ Catchment area (km<sup>2</sup>): \_\_\_\_\_  
 Maximum wall height (m)<sup>\*(1)</sup>: \_\_\_\_\_ Regional maximum flood peak (m<sup>3</sup>/s)<sup>\*(2)</sup>: \_\_\_\_\_  
 Wall type<sup>\*(3)</sup>: \_\_\_\_\_  
 Maximum base width (m): \_\_\_\_\_ Storage capacity at full supply level (m<sup>3</sup>): \_\_\_\_\_

Type of spillway: \_\_\_\_\_

Crest length of wall and spillway (m): \_\_\_\_\_ and only of spillway (m): \_\_\_\_\_

Brief description of foundations: \_\_\_\_\_

Brief description of construction materials: \_\_\_\_\_

Brief description of proposed modification of existing dam, if applicable: \_\_\_\_\_

Brief description of type of outlet works: \_\_\_\_\_

Description of flood gates, if applicable: \_\_\_\_\_

Mention any particular problem to be handled, if applicable: \_\_\_\_\_

**Explanation**

- \*(1) The maximum wall height is measured vertically from the natural ground level on the downstream side to the crest height.
- \*(2) According to TR137, Hydrological Research Institute, Department of Water Affairs' publication. If catchment is less than 10 km<sup>2</sup>, rather say "not applicable catchment < 10 km<sup>2</sup>."
- \*(3) If not a conventional dam wall type or combination, please describe in a short sentence.

**APPENDICES REQUIRED**

Please submit the following information/documents.

<b>Curriculum Vitae:</b>	Required	
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A General statement of the applicant's qualifications, career, achievements and membership of professional organisations.

<b>Supporting statement:</b>	Required	
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A supporting statement or reference in respect of the applicant's competence with reference to the task applied for by an authoritative person, must be an experienced senior professional engineer, technologist or technician.

<b>Authority diagram:</b>	Required	
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A diagram of responsibility clearly indicating the applicant's current level of authority in his / her organisation or for the proposed project. The names of the applicant's direct superior(s) in the firm/organisation or project must also be indicated in the authority diagram.

<b>Involvement at dams:</b>	Required	
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The Spreadsheet DW691T (2023) must be completed in respect of all dams at which the applicant was involved. Explanation for the completion of the spreadsheet appears in Appendix A.

<b>Other experience:</b>	Optional	
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An optional separate statement can be included of courses attended or training undergone with direct bearing on dam engineering, including other appropriate experience for example research, presentation of courses, uncompleted studies and a list of published papers can be submitted. Any experience which has not been directly gained during dam projects, but still include related aspects, can be supplied.

<b>Professional Team:</b>	Only in Category III cases	
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If the dam is a Category III dam, an application for the approval of the professional team must also be submitted by completing DW698E.

**DECLARATION BY APPLICANT**

I declare herewith that all information on this form is true and correct to the best of my knowledge. I herewith further formally apply to be approved as an approved professional person for the task described in this application.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

**DECLARATION BY OWNER OF DAM OR PERSON IN CONTROL**

I declare herewith that all information on this form is true and correct to the best of my knowledge. I herewith further formally appoint the above-mentioned applicant, if successful, to be the approved professional person for the above-mentioned dam.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

**APPENDIX A****DEFINITIONS AND GUIDELINES FOR COMPLETION OF THE SPREADSHEET (DW691T)****INTRODUCTION**

For every component of a dam, the extent of the applicant's involvement must be mentioned with a numerical-alpha-numerical symbol "I-T-D" which is composed of the level "Inv", the nature "Tas" and the duration "Dur". Where applicable, symbols are indicated in brackets in the under mentioned explanatory paragraphs 2 and 3.

**LEVEL OF INVOLVEMENT IN A TASK (SYMBOL "Inv" IN TABLE)**

Distinction is made between the following five levels of involvement in a task namely:

- **Level "1"(1)**, or overhead control, where the professional registered person, owing to his or her position in an organisation, carries responsibility for the execution of a task without actually being concerned with the details thereof;
- **Level "2"(2)**, or direct supervision, with regard to the execution of a task with responsibility for approval of assumptions, methods, procedures, criteria, plans, reports, modifications, interpretations or recommendations;
- **Level "3"(3)**, or primary executionary involvement, with responsibility for the execution of calculations, dimensions, detailing, reporting, inspection, investigations or model studies;
- **Level "4"(4)**, or expert involvement, whereby expert advice is given to other who are more directly concerned with the execution of the task; and
- **Level "5"(5)**, or supporting involvement, whereby work is performed in connection with a limited part of the task and as such performs an indispensable auxiliary function as for example, only materials investigations, or just structural calculations, but can not claim full involvement in the design of the wall. Specific involvement must be indicated in the "remarks"-column.

**NATURE OF TASKS UNDERTAKEN IN CONNECTION WITH DAMS (SYMBOL "Tas" IN THE TABLE)**

- **"Design"(D)**: which includes the investigation of alternative solutions, selection of materials, determination of geometry, execution of appropriate analyses, compilation of detailed building plans, specifications and manuals for operations;
- **"Quality control"(Q)**: which includes the execution of control over the erection of a structure or component thereof according to plans and specifications;
- **"Operation"(O)**: which includes the use of a component or components of a dam from completion of construction, as well as the continuous maintenance thereof to ensure serviceability including regular inspections to determine the condition and serviceability, as well as assessment of measurements to determine performance;

- **"Evaluation"(E)**: which includes the determination of which current standards and practice are complied with in respect of:
  - provision to fulfil the intended function (e.g. adequacy of spillway capacity, stability);
  - the laid down procedures and methods for the use of a component,
  - the condition of or performance of a component which has been observed, or can be observed; or
  - the method, assumptions and norms that were used for structural analysis or hydrological analyses.

### **DURATION (SYMBOL "Dur" IN THE TABLE)**

Duration of active involvement must be indicated in man-weeks. If other tasks were undertaken during the same period, adjustments must be made. The total number of man-weeks in each row and column must be added and completed in the appropriate position.

### **COMPONENTS OF OR ASPECTS RELEVANT TO A DAM**

In the Table the following components or aspects are distinguished:

- **"wall"** which comprises the main structure constructed to accomplish storage or diversion of water; in the case of a composite dam, for instance an earth dam with concrete spillway section, involvement in respect of concrete and earth portion- "spillways can be provided separately;
- **"structural analyses"** which mainly implies comprehensive or advanced analyses for the determination of stability, stresses and displacements;
- **"foundation treatment and drainage systems"** which include any works to obtain water seepage control, bearing strength and stability in the natural foundation material of the dam and related works;
- **"monitoring system"** which includes all equipment supplied to collect information on the structural performance of the dam and foundation (e.g. deflection, flow, deformation and temperature readings);
- **"hydrology"** which includes and analyses of all hydrological information and the determination of flood peaks and flood volumes for different recurrence periods;
- **"spillways"** which include all parts of the dam provided to deviate flood water safely past the dam; whereby river diversion works are included;
- **"mechanical equipment"** which is limited to crest gates or low level flood outlets and related equipment;
- **"outlet works"** which are intended to release controlled quantities of water for use from storage and do not include flood spillways;
- **"year of involvement"** is the year or years during which respective activity took place; and
- **"year of completion of the project"** indicates the year of completion of the construction of the project in respect of which involvement is indicated. If the project was not built, reasons must be given.

### **EXAMPLE**

An applicant, who was primarily responsible for the calculations and design of a flood spillway and worked four weeks thereon, will indicate his nature, level of involvement and duration as "3D4".

In respect of "structural analysis" and "hydrology", the nature "Tas" of involvement can only be indicated as "D" or "E". First-named refers to the execution of a study, whereas last-mentioned indicates an independent evaluation of any study.