

REPUBLIC OF SOUTH AFRICA

**NATIONAL WATER ACT**

Act No 36 of 1998

**CHAPTER 12**

**SAFETY OF DAMS**

***This Chapter contains measures aimed at improving the safety of new and existing dams with a safety risk so as to reduce the potential for harm to the public, damage to property or to resource quality. To reduce the risk of a dam failure, control measures require an owner to comply with certain directives and regulations, such as to submit a report on the safety of a dam, to repair or alter a dam, or to appoint an approved professional person to undertake these tasks. These measures are in addition to the owners' common law responsibility to ensure the safety of their dams. An approved professional person has a statutory duty of care towards the State and the general public and must fulfil, amongst other things, defined responsibilities when acting under this Chapter. Not all dams are subject to regulation under this Chapter, and the Minister may exempt certain persons from its requirements. Only dams of a defined size, dams which have been declared to be dams with a safety risk, or dams falling into a prescribed category are affected. All dams with a safety risk must be registered. Compliance with any directive or regulation under this Chapter does not exempt an owner from complying with any other provision of this Act, such as the requirement for a licence or other authorisation for water use in respect of the dam.***

**Definitions**

**117.** In this Chapter –

- (a) "approved professional person" means a person registered in terms of the Engineering Profession of South Africa Act, 1990 (Act No. 114 of 1990), and approved by the Minister after consultation with the Engineering Council of South Africa (established by section 2 of that Act);
- (b) "dam" includes any existing or proposed structure which is capable of containing, storing or impounding water (including temporary impoundment or storage), whether that water contains any substance or not;
- (c) "dam with a safety risk" means any dam –
  - (i) which can contain, store or dam more than 50 000 cubic metres of water, whether that water contains any substance or not, and which has a wall of a vertical height of more than five metres, measured as the vertical difference between the lowest downstream ground elevation on the outside of the dam wall and the non-overspill crest level or the general top level of the dam wall;
  - (ii) belonging to a category of dams declared under section 118(2) to be dams with a safety risk; or (iii) declared under section 118(3)(a) to be a dam with a safety risk;
- (d) "owner of a dam" or "owner of a dam with a safety risk" includes the person in control of that dam; and
- (e) "task" includes a task relating to designing, constructing, altering, repairing, impounding water in, operating, evaluating the safety of, maintaining, monitoring or abandoning a dam with a safety risk.

## **Control measures for dam with safety risk**

- 118.** (1) The owner of a dam must -
- (a) within the period specified, provide the Minister with any information, drawings, specifications, design assumptions, calculations, documents and test results requested by the Minister; or
  - (b) give any person authorised by the Minister access to that dam, to enable the Minister to determine whether -
    - (i) that dam is a dam with a safety risk;
    - (ii) that dam should be declared to be a dam with a safety risk;
    - (iii) a directive should be issued for specific repairs or alterations to that dam; or
    - (iv) the owner has complied with any provisions of this Act applicable to that dam.
- (2) The Minister may by notice in the *Gazette* declare a category of dams to be dams with a safety risk.
- (3) The Minister may -
- (a) by written notice to the owner of a dam, declare that dam to be a dam with a safety risk;
  - (b) direct the owner of a dam with a safety risk to submit, at the owner's cost, and within a period specified by the Minister, a report by an approved professional person regarding the safety of that dam; or
  - (c) direct the owner of a dam with a safety risk to undertake, at the owner's cost, and within a period specified by the Minister, any specific repairs or alterations to that dam which are necessary to protect the public, property or the resource quality from a risk of failure of the dam.
- (4) If the owner of the dam fails to comply with the directive contemplated in subsection (3)(c) within the period specified, the Minister may undertake the repairs or alterations and recover the costs from the owner.
- (5) Before issuing a directive, the Minister must -
- (a) be satisfied that the repairs or alterations directed are necessary, adequate, effective and appropriate to reduce the risk to an acceptable level; and
  - (b) consider the impact on public safety, property, the resource quality and socio-economic aspects if the dam fails.

## **Responsibilities of approved professional persons**

- 119.** (1) When carrying out a task in terms of this Chapter, an approved professional person also has a duty of care towards the State and the general public.
- (2) An approved professional person appointed to carry out a task on a dam must -
- (a) ensure that the task is carried out according to acceptable dam engineering practices;
  - (b) keep the prescribed records;
  - (c) compile the prescribed reports; and
  - (d) where the task includes constructing, altering or repairing a dam, issue a completion certificate to the owner of the dam to the effect that the task on that dam has been carried out according to the applicable design, drawings and specifications.
- (3) An approved professional person appointed to carry out a dam safety evaluation must -
- (a) consider whether the safety norms pertaining to the design, construction, monitoring, operation, performance and maintenance of the dam satisfy acceptable dam engineering practices; and
  - (b) compile a report on the matters contemplated in paragraph (a) according to the prescribed requirements and submit the signed and dated report to the owner of the dam within the prescribed period.

## **Registration of dam with safety risk**

- 120.** (1) The owner of a dam with a safety risk must register that dam.  
(2) An application for registration must be made within 120 days -  
    (a) after the date on which the dam with a safety risk becomes capable of containing, storing or impounding water;  
    (b) after the date on which an already completed dam is declared to be a dam with a safety risk; or  
    (c) after publication of a notice declaring a category of dams to be dams with a safety risk, as the case may be.  
(3) A successor-in-title to an owner of a dam with a safety risk must promptly inform the Director-General of the succession, for the substitution of the name of the owner.

## **Factors to be considered in declaring dam or category of dams with safety risk**

- 121.** In declaring a category of dams or a dam to be a category of dams or a dam with a safety risk, the Minister must consider -  
    (a) the need to protect the public, property and the resource quality against the potential hazard posed by the dam or category of dams;  
    (b) the extent of potential loss or harm involved;  
    (c) the cost of any prescribed measures and whether they are reasonably achievable;  
    (d) the socio-economic impact if such a dam fails; and  
    (e) in the case of a particular dam, also -  
        (i) the manner in which that dam is designed, constructed, altered, repaired, operated, inspected, maintained or abandoned;  
        (ii) the person by whom that dam is designed, constructed, altered, repaired, operated, inspected, maintained or abandoned; and  
        (iii) the manner in which the water is contained, stored or impounded in that dam.

## **Exemptions**

- 122.** (1) The Minister may exempt owners of dams belonging to certain categories, by notice in the *Gazette*, from compliance with any provision of this Chapter or any regulation made under this Chapter, on conditions determined by the Minister.  
(2) The Minister may in writing exempt an owner of a dam belonging to a certain category from compliance with any provision of this Chapter on conditions determined by the Minister.  
(3) The Minister may withdraw the exemption or impose further or new conditions in respect of the exemption.  
(4) Before deciding on an exemption, the Minister must consider -  
    (a) the degree of risk or potential risk posed by the dam or category of dams to public safety, property and the resource quality;  
    (b) the manner of design, construction, alteration, repair, impoundment of water in, operation or abandonment of the dam or category of dams;  
    (c) the supervision involved in the dam or category of dams;  
    (d) alternative measures proposed for regulating the design, construction, alteration, repair, operation, maintenance, impoundment of water in, inspection or abandonment of the dam or category of dams and the effectiveness of these measures;  
    (e) the knowledge and expertise of the persons involved in any task relating to the dam or category of dams;  
    (f) the costs relating to the dam or category of dams;  
    (g) any security provided or intended to be provided for any damage which could be caused by the dam or category of dams; and

- (h) whether the dam or category of dams are permitted in terms of a licence or any other authorisation issued by or under any other Act.

### **Regulations regarding dam safety**

- 123.** (1) The Minister may make regulations -
- (a) for the establishment of a register of approved professional persons for dealing with dams with a safety risk -
    - (i) providing for -
      - (aa) different classes of approved professional persons;
      - (bb) the tasks or category of tasks which each class of approved professional persons may perform; and
      - (cc) the conditions under which each class of approved professional persons may perform any task or category of tasks;
    - (ii) concerning the requirements for admission to each class;
    - (iii) setting out, in respect of each class, the procedure for -
      - (aa) approval;
      - (bb) withdrawal of an approval; and
      - (cc) suspension of an approval; and
    - (iv) providing for a processing fee for an approval;
  - (b) regulating the approval of a person as an approved professional person for a specific task -
    - (i) setting out the procedure for approval;
    - (ii) setting out the procedure for cancelling an approval;
    - (iii) requiring that the approved person be assisted in the task by another person or a group of persons with specific experience and qualifications; and
    - (iv) providing for a processing fee for an approval;
  - (c) in respect of dams with a safety risk -
    - (i) classifying such dams into categories;
    - (ii) requiring the owner of a dam of a specific category to appoint an approved professional person to -
      - (aa) design that dam or any repair, alteration or abandonment of the dam;
      - (bb) ensure that a task is carried out according to the applicable design, drawings and specifications; and
      - (cc) carry out dam safety evaluations on the dam;
    - (iii) requiring that licences be issued by the Minister before any task relating to a specific category of dams may commence, and the conditions, requirements and procedure to obtain any specific licence;
    - (iv) laying down licence conditions and requirements that must be met when carrying out a task on a specific category of dams;
    - (v) requiring an approved professional person, appointed for a dam of a specific category, to keep records of information and drawings, and to compile reports;
    - (vi) requiring -
      - (aa) an owner of a dam belonging to a specific category of dams; and
      - (bb) an approved professional person appointed for a specific task for a specific dam, to submit information, drawings, reports and manuals;
    - (vii) determining the duties of -
      - (aa) an owner of a dam belonging to a specific category of dams; and
      - (bb) an approved professional person appointed for a specific task for a specific dam;
  - (d) requiring the owner of a dam with a safety risk to accomplish regular monitoring of the dam, to the extent and manner prescribed;
  - (e) requiring the registration of a specific dam with a safety risk, and setting out the procedure and the processing fee payable for registration; and
  - (f) specifying time periods that must be complied with.

- (2) In making regulations under subsection (1)(a), the Minister must consider -
- (a) the expertise required for the effective design, construction, alteration, repair, operation, maintenance and abandonment of a dam in the category concerned; and
  - (b) the qualifications and experience needed to provide the expertise for a particular category of tasks.
- (3) Before making regulations under subsection (1), the Minister must consult the Engineering Council of South Africa, established by section 2 of the Engineering Profession of South Africa Act, 1990 (Act No. 114 of 1990), and any other appropriate statutory professional bodies.